GLIDING AUSTRALIA

Issue 29 April - May 2016

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BENALLA PRE-WORLDS

GLIDER RACING AT THE WAG DUBAI

HYDRAULIC JUMP 2 - FLYING A SILENT 2 ELECTRO - HORSHAM WEEK

GLIDING AUSTRALIA

No. 29 April - May 2016

COVER: ANDREW GEORGESON AT BENALLA MULTICLASS NATIONALS FLYING A JS1C BY AL SIM

2 FROM THE PRESIDENT - EXECUTIVE OFFICER - SPORTS CHAIR AND THE LATEST FAI BADGES
What's happening in the Australian gliding airspace.

8 MARKETING & DEVELOPMENT
John Stiles reviews statistics on current gliding club membership in Australia, and proposes new opportunities to continue growth.

10 VSA COACHING WEEK
VSA Coaching Week gave early crosscountry pilots theory and practical experience to help launch their crosscountry careers.

12 HORSHAM CUP
The 50th Horsham Week attracted many of its original pilots, and was as friendly and welcoming as ever despite challenging weather conditions.

14 SILENT RUNNING
Mark Dalton found the Silent is golden when in Italy to fly Alisport's electric self-launcher, and says self-launching is the way of the future.

17 MAX ROSE GOES SOLO
Young Max Rose learned to love flying, as well as the details of small club life, at Grafton Gliding Club and soon found himself ready to fly solo.

18 WEATHER PHENOMENA - HYDRAULIC JUMP 2
Bernard Eckey continues his research into the hydraulic jump, including how to identify and distinguish it from the better known lee wave.

22 MULTICLASS NATIONALS & PRE-WORLDS, BENALLA
The 54th Multiclass Nationals held at Benalla was one the largest with 77 gliders, a serious international grid and some strong windy conditions.

28 GLIDING IN THE CITY - GLIDER MATCH RACING IN DUBAI
For gliding races at the FAI World Air Games in Dubai, organiser Roland Stuck employed an interesting competition technique with two gliders and six top pilots.

35 COACHING
Learn how to find 'ladders of lift' as you fly by watching cloud shapes and wind speed.

36 VINTAGE
The Bordertown Vintage Rally brought vintage glidingers together with a good turn-out and a local guest speaker.

39 ITC INTERNATIONAL TEAMS
ITC has finalised teams for the Lithuanian and Benalla World Championships, including Team Captains, and shares funding news.

40 AIRSPACE AND AIRWORTHINESS
Graham Brown shows how to see and avoid non-glider traffic and Peter Cesco outlines the future of GFA airworthiness training.

43 ACCIDENTS & INCIDENTS

47 CLASSIFIEDS

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WORLD CHAMPIONSHIP TEAMS

After strong performances in the Australian summer national gliding competitions, the Aussie team for **WGC2017 Benalla** has been decided.

Bruce Taylor will fly in Open Class. Bruce has previously represented Australia at WGC Borlange in 1993, as well as Omarama, St Auban, Beyreuth, Gawler, Reiti and Uvalde. Andrew Georgeson will also be on the team, flying in his first international competition.

18 Metre Class will be represented by Peter Temple who will be taking part in his fourth Worlds, having flown at Vinon-sur-Verdon, Reiti and Prievidza. Joining him will be Tom Claffey, who flew at Mafeking, Szeged, Uvalde, Leszno and two FAI Sailplane Grand Prix finals.

15 Metre Class will be Steve O'Donnell, who flew at the previous Benalla WGC in 1987 and Matthew Scutter, who has competed in three Junior World Gliding championships and is the current Junior World Champion in Standard Class.

See full details on page 39. Congratulations to the team! wgc2017.com facebook.com/WGCBenalla

LITHUANIA

The 34th WGC in Standard and Club Class, plus 20M Two Seat will be hela at Pociunai Lithuania 30 July - 13 August 2016. The Australian team will be John Buchanan in Standard Class, Tobi Geiger and Allan Barnes in Club Class, and Matthew Scutter with Dylan Lampard competing in 20M Two Seat class. Follow all the action at wgc2016.lt.

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THE YEAR IN REVIEW

DEAR MEMBERS

Summer is a quiet time for GFA with minimum meetings, but hopefully everyone has managed to enjoy the freedoms and exemptions that we spend our time in the winter months to achieve.

We continue to work on our Strategic Plan and the next stage has been to put together a document tying in the Member Survey comments and suggestions with our big picture Strategic Plan. This is a powerful document that uses the feedback from members to set and prioritise specific actions going forwards.

The raw comments from the survey are being published, in sections on the website. There is a one click link from the Documents Home page. It was pleasing to see over 100 downloads of the first section.

When members first join GFA, we ask them how they heard about gliding so that we can track successful advertising. Specifically we will now be able to track how many new members joined because of publicity around the 2015 and 2017 World Gliding Championships in Australia. There was a clear increase in GFA membership after the World Gliding Competition at Waikerie, giving us our maximum membership ever of 4,542 in 1985. Our current membership (excluding short-term membership) sits at 2,562. As you can imagine we are very busy planning and preparing for the next World Gliding Championships at Benalla next January. With lessons learned at Narromine we hope to host an even bigger and better event.

I may be wrong but I have formed the impression that we, as a group, are not very tolerant of others who share our love of gliding but who choose to do it in a slightly different way.

In the recent members' survey I read:

I don't like competitions
I don't like instructors
I don't like coaches
I don't like grumpy old men
I don't like private owners
I don't like juniors
I don't like women in gliding.

I'm paraphrasing here but I'm sure you get the idea, and I'm sure we have all heard instances of these views being expressed.

Our membership is so small that if we retain these prejudices we will soon all run out of friends.

We all share a love of flying gliders. Can we not learn to tolerate all aspects of our amazing sport?

At the risk of sounding like a Sunday preacher may I make a plea for tolerance or, to quote the Dalai Lama, "Compassion and tolerance are not a sign of weakness, but a sign of strength."

Thank you

MANDY TEMPLE
PRESIDENT
President@glidingaustralia.org

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.

AUSTRALIAN AIR FORCE CADETS (AAFC) FEBRUARY

Executive Officer (EO) Terry Cubley and Chair of the Operations Panel (COP) Drew McKinnie travelled to Canberra to meet with Air Commodore Terry Delahunty to discuss progress with the new AAFC model and changes to AAFC key personnel. Going forward we will be piggybacking on AAFCs plans to build a simulator in every state. We also hope to garner some AAFC resources to help us with our document standardisation and upgrades.

CASA FEBRUARY

Executive Officer (EO) Terry Cubley and Chair of the Operations Panel (COP) Drew McKinnie met with CASA officers to discuss current issues such as Part 149 – the move to self-administration, Part 139 – airfield requirements such as flashing lights on cars, and progress with finalising MOSP Part 3 V7.2 which is now with CASA for final approval. They also raised some concerns we have had with the Regional Airspace and Procedures Advisory Committees (RAPAC) trying to push issues through without due process. The most recent example is a proposed change of Narromine CTAF to be the same as Dubbo, presented without notice for two days consultation. We are making sure that CASA know that this standard of behaviour is not acceptable.

IGC MEETING FEBRUARY

Wearing a different hat, Terry Cubley travelled to Europe as GFAs IGC representative. This is an annual meeting to discuss changes to the Sporting code, International rules, glider classes, and competition schedules. In the past, Terry has been successful at these meetings and has charmed delegates to support our bids first for Narromine and then for Benalla. This time he put forward a successful bid for the Women's World Gliding Championships at Lake Keepit 2019.

AIR SPORTS AUSTRALIA CONFEDERATION (ASAC) MARCH

Chair of Sports Committee Greg Schmidt attended the ASAC meeting in March. ASAC is the Australian National Aero Club (NAC) and represents our interests at Federation Aeronautique Internationale (FAI) meetings. It also manages team entries to competitions and Continental and World Record paperwork. GFA pays $22K annually to be a member of ASAC. http://www.asac.asn.au The March meeting was a Strategic Planning brain storming meeting to determine the best direction for ASAC going forward.

PART 139

At the Benalla Nationals, it became apparent that Part 139 was being applied rather enthusiastically and not in line with our interpretation - all cars to have a flashing light on the roof at all times. We approached CASA for clarification. It was timely as Part 139 is currently under review and is due to be rewritten. Consequently Graham Brown, the GFA Airfield and Airspace Officer, has set up a meeting with affected airfield representatives and CASA representatives to express our concerns.

MANDY TEMPLE

FAI GLIDING BADGES TO 24 FEBRUARY 2016

BERYL HARTLEY
FAI CERTIFICATES OFFICER
faicertificates@glidingaustralia.org

A BADGE

HILLIAR DONALD H	12081	SOUTHERN CROSS GC
PANTEN KENNETH R	12083	301 ATC NSW
GAILEY DAVID JAMES T	12095	SOUTHERN CROSS GC
HUMPHRIS CRAIG K	12096	ADELAIDE SC
LAYTON JACOB G	12097	301 ATC NSW
MOBARAK BENJAMIN	12099	301 ATC NSW
SIN LOK MAN	12105	DARLING DOWNS SC
NIGHTSCALES GREGORY	12110	DARLING DOWNS SC
HO CHI SHING	12115	LAKE KEEPIT SC
CHAN SHING CHUNG	12116	LAKE KEEPIT SC
MA KA WAI	12119	LAKE KEEPIT SC
SUEN WING CHEUNG	12120	LAKE KEEPIT SC
MONTROY MATTHEW R	12126	HUNTER VALLEY GC
MONTROY BRADLEY K	12127	HUNTER VALLEY GC
WINSLETT WYNONA	12133	301 ATC NSW

A & B BADGE

MAIERHOFER EDELTRAUD	12086	FLY DOWN UNDER
SHACKLEFORD DAVID M	12093	G.C.V.
CALDON RAYMOND J	12098	SOUTHERN CROSS GC
BLIEM LES	12102	SOUTHERN CROSS GC

B BADGE

PSAILA JARROD J	12056	DARLING DOWNS SC
KNOX GUY L	12057	BYRON GLIDING
ZACCARIA LUKE A	12051	301 ATC NSW
WINTERTON SOPHIE J	12054	301 ATC NSW
CLARK ANNE	11946	G.C.V.
MAYALL GLENN	120177	CENTRAL COAST GC

B & C BADGE

PARRY-GRASS MORGEN A	11978	301 ATC NSW

C BADGE

GLAVAS DYLAN M	12052	QLD AIR TC
LITTLE JEFFREY L	12004	HUNTER VALLEY GC
ROBINSON KEELAN P	11936	301 ATC NSW
JACKSON COOPER M	11980	ADELAIDE SC
COLLINS JAKE J	12058	301 ATC NSW
GALDONRAYMOND J	12098	SOUTHERN CROSS GC
MARTIN ALEXANDER E	12025	NARROGIN GC
SHERGOLD RYAN B	12068	301 ATC NSW
WINTERTON SOPHIE J	12054	301 ATC NSW
MCAVOY STEVEN P	12027	GEELONG GC
BOSWELL WILLIAM	11944	301 ATC NSW
SHACKLEFORD DAVID M	12093	G.C.V.

A, B, C BADGE

SADIKI ADANN	12076	301 ATC NSW
EDWARDS GREGORY	12077	LAKE KEEPIT SC
NORTHEY IAN	12078	V.M.F.G
DWYER JAMES A	12079	G.C.V
HELBIG DANIELA K	1208	BATHURST SC
REID HAMISH D	12082	G.C.V
HENDERSON MICHAEL A	12084	G.C.V
PSAILA JASON A	12085	DARLING DOWNS SC
BATH TREVOR W	12087	GC WEST AUSTRALIA
FORSYTH HAMISH C	12088	QLD AIR TC
CAPPELEN BJORN C	12089	CANBERRA GC
LATHAM MURRAY	12090	BEVERLEY SC
HANSON MALCOLM G	12091	CANBERRA GC
PETHERBRIDGE TERRY W	12092	LAKE KEEPIT SC
HONDERMARCH VICTOR	12094	HUNTER VALLEY GC
LEISEMANN HOLLY P	12101	QLD AIR TC
CARTER BEN K	12103	ADELAIDE UNIVERSITY SC
MCDONOUGH MITCHELL	12104	SYDNEY GLIDING CLUB
OLIVE CHRISTOPHER J	12106	301 ATC NSW
SIMPSON ANDREW L	12107	SOUTHERN CROSS GC
BEMELMAN THOMAS A	12108	QLD AIR TC
COLLINSDAVID T	12109	SUNRAYSIA GC
JOSEMATTHEW R	12111	LAKE KEEPIT SC
CLIPSTONE ROD	12112	GRAMPIAN GC
PATTERSON JOHN A	12113	BATHURST SC
HESS DARREN L	12114	MANGALORE SC
VENGUST DENNIS	12117	G.C.V.
CLARK CAITLIN	12118	QLD AIR TC
PEAURIL DAMIAN T	12121	DARLING DOWNS SC
MCQUEEN THOMAS J	12122	QLD AIR TC
CLOUT ADRIAN A	12123	BATHURST GC
BURNS CAL	12124	SOUTHERN RIVERINA GC
SHANG GUANGWEI	12125	NARROMINE GC
CHAMBERS MARK	12128	KINGAROY SC
JACOBS CARL S	12129	WARWICK GC
WILSON KEVIN	12130	BEVERLEY SC
GROHMANN RICHARD I	12131	MT BEAUTY GC
FIRKINS JAMES B.	12132	NARROGIN GC

SILVER C

TUCKER JOHN G	4888	BATHURST SC
PRIEMONAS JOHN	4889	BOONAH GC
SHEAD ROGER C	4890	BEVERLEY SC
WHITTLE ROSS F	4891	LAKE KEEPIT SC
SIMPSON ANDREW L	4892	SOUTHERN CROSS GC
DWYER JAMES	4893	G.C.V.
TUCKWELL TRAVIS	4894	HUNTER VALLEY GC
ANDERSON LYNN R	4895	LAKE KEEPIT SC
WILSON ALAN J	4896	WAIKERIE GC
JACOBS CARL S	4897	WARWICK GC
SHANG YUCHENG	4898	NARROMINE GC
HENDERSON MICHAEL	4899	G.C.V.
GROHMANN RICHARD I	4900	MT. BEAUTY GC
SHACKLEFORD DAVID M	4901	G.C.V.
SHANG GUANGWEI	4902	NARROMINE GC

GOLD C BADGE

HELBIG DANIELA K	1722	BATHURST SC
GRANT JOHN W	1723	NARROGIN GC
FOUND DAYLE M	1724	NARROGIN GC
SHANG GUANGWEI	1725	NARROMINE GC
FURZE LEONIE K	1726	BATHURST SC

DIAMOND GOAL

HELBIG DANIELA K	BATHURST SC
SIMPSON ANDREW L	SOUTHERN CROSS GC
GRANT JOHN W	NARROGIN GC
SHANG GUANGWEI	NARROMINE GC
GOLODONIUC PAVEL	NARROGIN GC

DIAMOND DISTANCE

ATKINSON MATTHEW R	LAKE KEEPIT SC
WANG YUNHAI	SOUTHERN RIVERINA GC
SHANG GUANGWEI	NARROMINE GC

600 KLM DISTANCE

ATKINSON MATTHEW R	112	LAKE KEEPIT SC

EXECUTIVE OFFICER

GFA STRATEGIC PLAN 2016

The Board and Executive are now finalising the Strategic plan to prioritise actions for 2016. The big focus will be on increasing our membership numbers (Goal 3000), and improving our training standards and resources.

Some things have happened already while others are in process. A full list of actions will be available shortly so that you can provide some feedback and hopefully some ideas to improve the outcomes for members. The list will include things such as:

- President's forum: Email group for club and Regional Presidents. Current discussions are around how small clubs can be supported to survive and grow.
- Club health checks: Based on a model used in WA.
- Increase exposure and involvement of Regional associations.
- Improve pilot training, instructor training and standards, training resources.
- Support improvements in clubs for welcoming and engaging with new members

MEMBER PROTECTION

Like all organisations, we recognise that all members deserve to be treated appropriately when participating in our sport. This works to reduce/remove bullying or harassment. Club Committees and Members are encouraged to read our Members Protection Policy and ensure that you don't have any negative occurrences in your club. Search 'Member Protection' on our web page documents.

The policy includes obligations regarding the use of Working with Children Checks. We have had some recent legal opinion that confirms that most clubs/members do not require these checks, and in many cases are exempt. Our policy, however, does leave this to the club to assess how regularly unsupervised members are providing gliding to children, and therefore determine roles that should have a working with Children check. Again, if your club does identify some members that you believe should complete a check, then it is the club's responsibility to keep a record of compliance with this requirement.

If a club has any questions on this they can contact me at eo@glidingaustralia.org.

- Push back on Part 139 - flashing lights on vehicles.

A few clubs are being forced to require their members to place flashing lights on any airside vehicles. This appears to be the result of misinterpretation of the regulation by some airfield inspectors.

Conversations have been had and a meeting will shortly take place to try and remove this impost for those clubs.

COUNCIL OWNED AIRFIELDS

We have two clubs who are experiencing difficulties with their Council owned airfields. In both case the Council has commissioned a consultant to prepare a report to advise on possible future use of the airfield. We have been supporting impacted clubs who continue to work hard to resolve issues with Council staff.

This is a timely reminder that airfield security is a key requirement for ongoing success of clubs, so anything you can do to communicate and work with airfield owners, the better for your long term future.

MEMBERSHIP PROCESSES

- AEF: Recently we clarified the need for Air Experience Flights (AEF) to use the Introductory membership forms – the one that costs $30. If you want to let someone operate the controls in the glider then they must be a GFA member – this is a legal requirement. The GFA introductory membership enables this and also provides insurance for the visiting person. If you don't want them to touch the controls or to provide the visitor's insurance then they don't need to pay the introductory membership fee. The GFA Board strongly recommends that you protect your members by using the AEF forms.

Most people who come to fly come for one day. The introductory membership will last for 9 days and 10 flights so if you offer multiple flights then they get a benefit. For winch clubs where flights are likely to be shorter, this enables the club to provide a number of short flights on the one visit so the person gets a better experience. This also increases revenue for the club.

The visitor cannot buy the AEF introductory online. It is purchased from the club who pre-purchase the forms from the GFA office.

- Flying members: We have made changes to the new member process in an effort to reduce workload for clubs. If you get new members to join and pay online, the club does not have to do any work other than getting money for the club membership etc.

We now send you an email when the person has joined/paid so that you know that they have definitely been processed. There is a paper option. The forms are available online, but require the club officer to do the work rather than the new member. Let me know if this is working for you.

AW TRAINING COURSES

There are now a growing list of airworthiness courses being offered. A lot of work has been completed in planning courses and in developing training resources. Courses in SA and Qld and WA have been arranged, with other states currently planning their schedules.

TERRY CUBLEY
EXECUTIVE OFICER
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AAFC DISCUSSIONS

The Australian Air Force Cadets (AAFC) is growing rapidly with more gliders expected in the near future. They will have over 20 gliders, a mixture of DG10001 and ASK21Mi (motor gliders).

This provides a great introduction to gliding for the cadets, and for the GFA it provides a stream of enthusiastic young people that you can try and encourage to fly with your club.

The first flights that a cadet gets are through using the AEF – Introductory membership forms. We provide a reduced fee ($15) as a result of the AAFC process where they do all the paperwork and pay the GFA directly for the AEF fee, so if you have cadet squadrons wanting to come for a flight, just ask them to sort the paperwork and payments before they come, so that your club does not have to do this work. The same process applies to Australian Air League and some Scout organisations.

WORLD COMPS IN AUSTRALIA

The Junior Worlds at Narromine in December 2015 were a great success, greatly aided by the success of our team. Matthew Scutter won the Gold medal in Standard class, with James Nugent 5th in Club Class. Our team of Matthew, Ailsa, Dylan, Joe, Eric and James placed 4th in the team cup – our best ever result.

Due to support from the Hackett foundation, we will have some ongoing support for our team going to Lithuania in 2017. Thank you, Simon.

Preparation for the World Gliding Championships at Benalla next January are well under way, see the web page wgc2017.com. This is enhanced by the fact that the OSTIV [International Scientific and Technical Organisation for Soaring Flight] Scientific and Technical conference will also be held at Benalla during the world championships - a great opportunity to present papers or to come and see what is happening at the forefront of our sport. Stu Smith and Murray Stimson have volunteered to take the lead on the organisation of this conference – thanks guys!

IGC PLENARY 2016

The International Gliding Commission (IGC) meeting was held on 26-27 February in Luxembourg. This annual meeting develops future plans for international gliding and sets rules applicable to international competitions, records and badges.

I had to arrive a couple of days earlier to attend the Bureau (Executive) meeting, so I left Australia on Monday 22 February.

The IGC meeting agenda and papers and eventually the minutes can be found here:

- Click on this link: www.fai.org/igc-about-us/igc-meetings
- Click on 2016
- Click on Plenary and then Agenda

There were 34 delegates from gliding nations, which included three proxies. Each country has one representative but many of the Europeans have two people attending the meeting, making it a bit harder for us.

The following is a summary of the main decisions made that may impact on us or some Australian pilots. Full details can be viewed in the minutes which should appear by mid-March.

- A Handicap update for Club Class will appear shortly. This includes amendments to the Cirrus handicap as proposed and trialled at the Junior worlds. There is some discussion now about increasing the range of gliders eligible for Club Class, which may even see it include gliders like Ventus and maybe Discus 2. It will probably be a couple of years before this is finalised.
- There was much discussion about FLARM. We continue to require gliders to use FLARM and are encouraging use of 'Stealth mode'. Guidelines will encourage people to leave FLARM switched on for safety reasons but there are no plans for enforcement or penalties.
- Flight Recorders. Two new recorders have been approved. Electric Current detectors have been introduced for gliders powered by electric motors.
- An Australian motion to relax the rules around display of competition numbers was approved. Numbers on the fin are required but not under the wings.
- An Australian motion to increase the allowable mass of 20m 2-seat gliders to 800kg was approved, with an effective date of 31 March 2016. This means that pilots flying these gliders in Lithuania in August will be able to fly at the higher weight. This is important because nearly all of these gliders are motor gliders and struggle to fly within the previous limit of 750kg.
- There was lots of discussion about a Dutch proposal to reduce the impact of distance days on overall scores through the introduction of new devaluation factors. The proposal received some support but the meeting requested more details and further options to be presented next year.
- A proposal to alter the IGC Ranking List formula, trying increase the movement of people into and out of the list, was defeated.
- The Germans proposed a new starting method – involving allocated start times – which was approved with an amendment to change the time between allocated starts to 10-30 minutes. This will be trialled first in a European championship in 2017, and so will not be used at Benalla.
- 13.5m class. Microlight motor gliders with national registrations have been approved to compete without CofA or a permit to fly. They are usually registered differently and cannot achieve such documentation.
- A proposal to move the 13.5m class towards gliders/motorgliders with electric motors (FES) received a lot of support. The discussion included the concept of a new type of task allowing a certain level of energy use. The idea is in its early days because the legislation is still being developed by EASA, but it was agreed that this change should commence in 2019.
- It was agreed to allow aircraft that are fitted with an airframe parachute to compete without requiring a personal parachute.
- A proposal to remove the option for current world champions to compete in addition to their teams was carried, with the exclusion of women and Juniors. This will not take effect until late 2017, and is subject to a further vote by IGC.
- The loss of height requirement (max of 1,000m) for duration legs of silver/gold was removed in an attempt to simplify procedures.

ALLOCATION OF SITES FOR 2019 EVENTS

There was only one nomination for each World competition site, which is a bit of a concern. Why are countries pulling back from hosting world events? I suspect that cost issues are impacting many aspects of flying in Europe.

WOMEN'S WORLD GLIDING CHAMPIONSHIPS

Australia was the only bid for the Women's world championships, because there is a rule that requires this event to be held outside of Europe once every 10 years starting in 2019. Spain and France were keen to host but had to withdraw their bid because of this rule. The event was allocated to Lake Keepit for November 2019 but many countries were concerned that we may not get a lot of entries. It seems the European countries do not support their women teams very well, so we will need to find ways to encourage women pilots to attend in Lake Keepit.

OTHER EVENTS

The 13.5m Championship was awarded to Italy.

The Junior World Championships was awarded to Hungary.

The Pan American Championships was awarded to Argentina.

The 2017 IGC meeting was awarded to Budapest, Hungary.

Next IGC meeting will be held on 3 and 4 March 2017.

TERRY CUBLEY
IGC VICE PRESIDENT

AIR SPORT AUSTRALIA CONFEDERATION

WHAT IS ASAC?

Air Sport Australia Confederation (ASAC) was formed in 1989 when the Royal Federation of Aero Clubs of Australia was no longer able to represent air sport bodies in Australia and abroad, a service that it had previously provided for more than 50 years.

ASAC is not a parent body, but an umbrella body, which covers the consolidated needs of various air sport bodies and air sport participants. The current member organisations are the Australian Ballooning Federation, Australian Gliding Federation, Hang Gliding Federation of Australia, Australian Parachute Federation, Model Aeronautical Association of Australia and the Australian Aerobatic Club.

In total, ASAC represents some 20,000 active air sport members, and over 150,000 participants. ASAC is run by a board on which each of the six air sport organisations nominates a delegate. The President, Vice-President, Treasurer and Technical Chairman are the executive responsible for day-to-day operations. They are supported by a part time Executive Officer who manages the ASAC office.

ASAC has two main roles - it represents Australia at the Federation Aeronautique Internationale (FAI), and lobbies on behalf of air sport organisations to government.

The FAI is the world body that governs air sports and regulates aviation records and competitions, including space and unmanned aerial vehicles (UAVs). The FAI membership is some 130 nations and has over 42 million participants in Air Sports. The FAI Gold Air Medal, and its companion the FAI Gold Space Medal, are universally recognised as the world's absolute top awards and zre held by several Australians along with such noteworthy individuals as Bert Hinkler and Neil Armstrong. A representational link is maintained between the FAI and Australia via the FAI Vice President (Australia).

Note: The FAI VP (Australia) is elected by the ASAC Board, which has representatives from each of the member organisations.

Australia is proud to have the current FAI World Champion in Hot Air Ballooning and the Gold Medal winner in Aeromodelling from the 2015 World Air Games. Many other individuals and teams hold world rankings in the various air sports that Australians compete in.

As the FAI only recognises one organisation, the National Airsport Control or NAC, per country, an amalgamated organisation covering all disciplines is required. As such, other air sport groups cannot join the FAI individually. Therefore, if an organisation or individual aviator wants international recognition of a sporting achievement or event, then this will need to be done through the NAC, which in Australia is ASAC. A number of efficiencies with respect to annual subscriptions and administration are achieved through a joint organisation that represents the different air sports.

The FAI regulates air sports through a number of Commissions, of which ASAC member organisations have delegates on each relevant Commission. These range from Astronautics, to General Aviation, to Parachuting. More details of these can be found at http://www.fai.org/structure/commissions. Members can also register for email updates in their particular air sport by entering their contact details into the drop down menu. fai.org/mailing-lists

Through ASAC, as the NAC, Australians and international visitors are able to set world and national records in almost every facet of sport and recreational aviation. As well, ASAC provides a record service to the general aviation, commercial and military sectors with fees applicable.

Of note, a number of aviation World Records are held by Australians. Further details can be found at the FAI website link

fai.org/records

ASAC supports the combined interests of its members, and where requested, an individual organisation. The combined strength of the ASAC membership is able to impress significant influence on government and other official agencies. ASAC seeks to protect and promote its members' interests at the State and Federal political and governmental levels, especially with regard to air space and regulatory matters. ASAC's representatives have regular and ongoing contact with all responsible authorities and with the relevant Ministers' office. ASAC has direct and regular input into policy and regulatory matters that affect air sports and sport aviation generally. The ASAC membership plays its part in supporting the relevant authorities in setting and monitoring operational and safety standards in their respective air sports. ASAC is recognised by the Australian Sports Commission as the National Sporting Organisation for Air Sports in Australia and is affiliated with the Australian Olympic Committee.

It is worth reiterating that membership of ASAC not only serves the interests of its members at the political level, it also allows individuals to gain international recognition of aviation sporting records along with the ability to host and compete at the international level. This includes World Championships and the World Air Games.

The ASAC website contains contact details for the ASAC office, www.asac.asn.au. A number of informative papers and topics that ASAC is dealing with may be found on the ASAC website under the 'Issues' tab.

IF YOU WANT IT HERE IT IS

Nearly six years ago, Mt Beauty GC pinched the NSW Come and Get It trophy (CGIT) from Canberra GC at Bunyan, to the disgruntlement of the NSW adventurers. The Victorians passed the cup around their state from Mt Beauty to Bendigo, Geelong and Ararat several times having fun with a cheeky 'keep off' attitude!

Paul Mander eventually spoiled the fun and returned the cup to West Wyalong for Bathurst SC. Still keen to encourage a spirit of interclub interaction and rivalry the VSA recently introduced a New Mug for themselves and placed it in a strategic central location at the Bendigo club site at Raywood.

As a keen CGIT proclaimer I couldn't resist getting Mt Beauty's name on it first with a flight to Raywood on the 10 January in my syndicate ASK-21mi.

Local stalwart Paul Dilks kindly looked after me for the night and I had a great flight back the next day chasing the sun ahead of a approaching front. As I overflew the Benalla Ozglide comps at 10,000 ft, they were all tied down with the day cancelled for predicted storms. There are a few rules associated with claiming it published on the VSA website, including its current location, so let's keep it moving. Taking a club two seater is a great way to introduce newer members to cross country.

SPORTS COMMITTEE

Congratulations to the teams who have qualified for the two upcoming World Gliding Championships. In **Lithuania**, John Buchanan will be in Standard Class, Tobi Geiger and Allan Barnes will be in Club Class, and Mathew Scutter and Dylan Lampard in 20M Class. The Team captain is Cathy Conway.

At **Benalla**, Bruce Taylor and Andrew Georgenson are in Open Class, 18 Meter is Peter Temple and Tom Claffey, and Mathew Scutter and Stephen O'Donnell are in 15 Meter Class. Team Captain is Mandy Temple.

Thanks to Miles Gore Brown and his ITC committee for doing a lot of difficult work to get these positions finalized.

During the last Sport Committee Meeting, the cost of FAI badge claims was discussed. Berryl is now in the process of reviewing these costs.

GRAND PRIX

At the moment we do not have a venue for the next Competition.

TROPHIES

Julie-Ann and I have set in motion a process that we hope will keep track of the Trophies.

GPC

Minor changes have to be made to the GPC claim form to include country of citizenship.

NCC

The Competition Guidelines are currently being updated.

COMPETITIONS

The next Multi Class Competition will be held at Kingaroy from 10 - 21 October 2016.

Next Club and Sports Nationals will be at Waikerie from 11 - 19 November 2016.

The Sports Committee would like to thank the Hackett Foundation for their generous donation to the Junior Gliding movement, which will help Juniors in future World competitions.

GREG SCHMIDT
CHAIR SPORTS COMMITTEE
csc@glidingaustralia.org

STANDARDS FOR ADS-B IN VFR AIRCRAFT

The Australian Strategic Air Traffic Management Group (ASTRA) consists of industry, air services, CASA, government and the defence force, who develop recommendations to CASA and Government on future Air Traffic Management.

I have the pleasure to participate with this group representing the Air Sports Australia Confederation (ASAC) of which the Gliding Federation is a member. At the last meeting in March, ASTRA put forward a paper for comment on 'Proposal for Adoption of Amended Standards for ADS-B Fitment in VFR Aircraft'. This paper states:

"Maximising voluntary fitment of ADS - B technology in VFR aircraft will enable air - air traffic awareness methods and technologies, and significantly improve aviation safety. While regulated mandatory fitment is not indicated, widespread equipage can be encouraged through the adoption of appropriate standards and installation process simplification."

As it says, it is not proposed for ADS-B to be mandated for VFR aircraft, however, if the benefits and the cost are right then Aircraft owners will voluntarily fit them and that is starting to happen even with the current expensive equipment. The main benefit for VFR aircraft is an aid to see and avoid just like FLARMS do for us now. ADS-B as a replacement for FLARMS will include all aircraft so we will have an aid to assist see and avoid for all the fitted aircraft.

GRAHAM BROWN
AIRSPACE, AIRFIELDS AND AVIONICS OFFICER

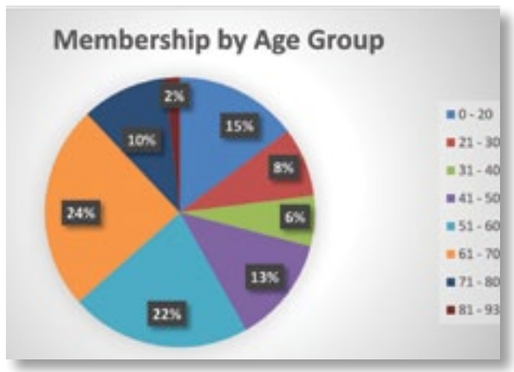
AGEISM AND NEW OPPORTUNITIES 2

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

Following on from the article in the last issue 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 in how we retain and recruit our members.

If we look at the Membership by Age Group chart we see that 58% of our members are over 50 but much more frightening is the fact that 36% of our total membership is over 61 years old. By the way, I am not against older people, but just highlighting the facts.

This is a major issue as in 10 – 15 years many of those pilots will either have retired from flying or sadly may have passed away. The current average life span of an Australian male is 80 years but as you all know some of us do not make it that far.



That 36% represents some 930 members, members that have to be replaced just so we can stand still. This works out at 62 new full time members each year over 15 years. Now you are thinking that's not hard, maybe 1 – 1.5 per club per year. But that's a full time member who will become a long term member.

Currently we estimate that only 1 in 50 AEF's actually sigh up for full membership if we are lucky and of them a number drop out before solo and even of those who go on to solo a number drop out after that because they are not given a clear pathway to crosscountry. So out of, say, 50 signed-up members, perhaps we retain 10 longer than two years.

We have another important item to consider with the 36% in that they also represent 56% of our instructors, which is why in the last issue we encouraged clubs to look at training younger members to become instructors and hopefully clubs will take that suggestion on board.

Even worse, the 36% represent 60% of our Form 2 inspectors. So again, encouraging younger people to become Form 2 inspectors is now a major priority.

If all this is a bit depressing then look at it as an opportunity and a challenge that we all have to meet head on and overcome - and we will.

In addition there is also the other issue this loss of members will create. That is loss of corporate knowledge and skills, much of which currently help keep the cost of gliding at an affordable rate for all.

So what can be done? Well, you could go out and collect all the knowledge these older folk have and then get them to teach you the skills they have. The trouble is that what were once skills that everybody had are now not taught as widely as they once were. Have you noticed there are a lot less apprenticeships now than in the past? This is where teaming up with the Re-Engineering Australia Foundation would help us, as I have mentioned in past articles.

Now, it is clear that we need a great influx of new full members willing to not only fly gliders but also participate in the running of the club and the greater organisation.

Previous article have provided ideas to increase your membership. Look through these issues of the magazine and jot down the ideas that are mentioned. Then look at your club and tick off the ones that the club has implemented.

For those ideas not ticked off, even the simple ones like clearing up all the rubbish around the clubhouse and workshop areas, which you as a club member never see because it's always been there, go to your club committee and ask them why they have not implemented them yet?

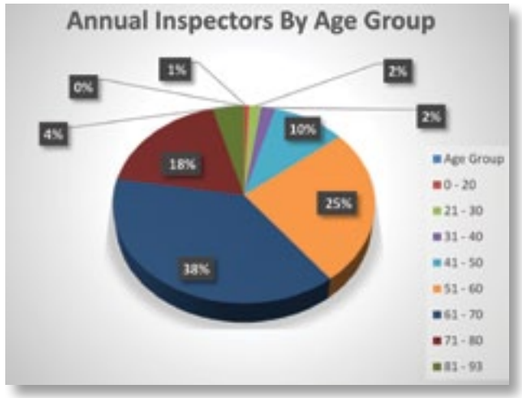
Of course the committee cannot do everything and they may delegate the task to you. So be prepared to do something yourself.

But to really fix these issues we need to approach the issue is a new way. The world has changed and we need to accept that, even if we are afraid.

So its time to change the way we have been doing some things, things that clearly do not achieve our objectives.

Therefore, change management strategies need to be encouraged at club committee level in a similar way they are implemented within business. Many committee members would have experienced this through their working lives and are familiar with these concepts. A club has many similarities to a business and a number of business management concepts would apply equally well.

Now, you may say that gliding and clubs are different from businesses. They are but the fundamentals are the same. We have a product, gliding, customers, club members and potential club members and we need to be financially successful to grow - which is all just like a business.



This change management is required to address the change insociety. Once we were a niche where no one could offer a competing activity. However, this is no longer true. There are now other air sports that offer a similar activity that are much better packaged. In addition, the competition does not only come from other air sports only but also from our families, from TV and Internet, social media, online gaming, low cost airfares and from employers who have managed to change work from a nuisance into an addictive passion.

Many organisations, including gliding clubs, make the mistake of focusing on price to the extent that they neglect other marketing variables. However, all surveys indicate that price is not a deciding factor in the majority of cases in making a decision to start gliding. More importantly, the main factors in influencing this choice is perceived value for money, facilities, perceived safety culture and friendliness of initial reception.

Worn out gliders with holes in the instrument panel where working instruments once proudly sat, and rundown pie carts and clubhouses do not attract people, no matter how cheap the membership is.

Constantly reducing prices only leads to one outcome - an income insufficient to maintain quality facilities and service and eventual death of the organisation.

Gliding used to be the answer to the question, "How can we make flying accessible and affordable to everyday people". This answer is no longer true. Gliding is now not cheap flying, although some older members still hold onto this myth and base their thinking around this outdated notion.

So what will be the outcomes of this new way of thinking?

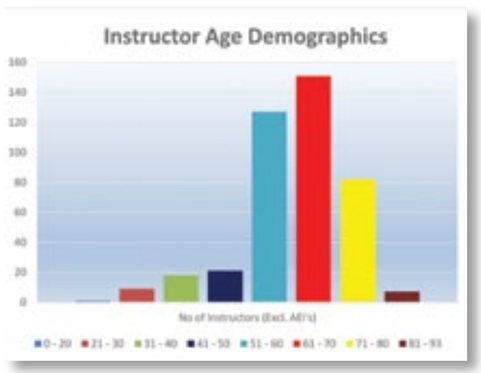
First, we will be offering people what they want from gliding in a format that they can engage with, as opposed to offering them what we now accept as the way to do things, just because, as far as we are concerned, it's always been that way and we don't like change and it suits us that way.

We are effectively saying, "Let's give people (the customer) what they want even if it is uncomfortable for us." Remember, it is only uncomfortable because it is new and different.

Try to see things through the prospective members' eyes, which is not easy when you yourself have been a member for long time, so your vision is blinkered. Try to think outside of your gliding life and see what others may see.

When talking to people who were once members of gliding clubs, one item stands out as to why they eventually left the sport. This can clearly be related to the change in people's lifestyles and expectations in terms of what they get in exchange for that precious, finite commodity, their time.

The issue, as they see it, can be termed as 'time wastage'. Clubs need to acknowledge that many people are time-poor due the complex nature of modern life. As many clubs are dominated by retirees, the concept of time wastage is difficult for them to grasp and they sometimes fail to appreciate that younger members need a fulfilling experience that is not just waiting around all day, which could last up to 10 hours including travel time to the club for a 30 minute flight.



Many will say that is the nature of the club experience but in fact it is really a failure to use the available time to its maximum benefit, occupying the new members with activities that will enhance their experience and sense of achievement and hopefully get them to the first ring on the ladder - that of going solo with a pathway mapped for after that.

So your task is to find out all you can about change management and apply it to your club.

It would be nice to get your feedback negative and positive. We have a thick skin, believe me you need it! 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

ANNUAL INSPECTORS REFRESHER COURSE & THEORY COMPONENT AIRWORTHINESS REFRESHER COURSE

9 April 2016
Raiders Club Weston ACT
colin_veal@bigpond.com
RTOA-NSW

ANNUAL INSPECTORS COURSE PRACTICAL COMPONENT

10 - 16 July 2016

Perth. Location confirmation and any documentation will be emailed closer to the course date. 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.**

2016 BASIC SAILPLANE ENGINEERING COURSE WARWICK GLIDING CLUB

Commencing 13th through to 19th August, this is inclusive for Annual Inspection and Replacement of Components. Numbers are limited to 20 participants. Contact either Laurie Simpkins on lahina2@hotmail.com or returns@glidingaustralia.org

55TH MULTI CLASS NATIONALS KINGAROY

10 - 21 October 2016
ontact Greg Schmidt 0414747201 and e-mail gregschmidt88@gmail.com

34TH FAI WORLD GLIDING CHAMPIONSHIPS BENALLA

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

VSA COACHING WEEK

BY DAVID MEREDITH

The VSA Coaching week has been run as a precursor to the very popular Horsham Week Competition for several years. It has predominantly targeted early cross country pilots to give them the theory and practical experience in which to launch their crosscountry careers.

Horsham is ideal for this level of pilot. It is flat, the paddocks are big and at this stage of the season they are very safe to land in. The weather is also pretty good for Victoria and is certainly better than Bacchus Marsh and other places where penguins live. Its also only 3 hours from Melbourne - so ideal for the pilot who is concerned about long drives to gliding sites.

ABOVE: The Grampians dominate the southern part of the task area.

This year we had 17 participants during the week plus a group of six coaches - myself, Chris Thorpe, Dave Wilson, Brendan English, John Orton and the State Coaching Lead, Tim Shirley. We had use of four twin seaters, and four of the coaches flew in the back seat with pilots taking turns to fly with a coach. Most participants also brought along single seaters, so everyone managed to get a flight each day that the weather was suitable. The days went something like this:

BELOW: David Meredith, Julian Smibert and Patrick Dunn.

Sunday 31 January. Lord Thorpe gave us an excellent presentation on safety, with an emphasis on threat and error management. Given the weather, we then took the opportunity to work in small groups to apply the TEM framework to our flying during the week and consider how we could all improve our stance on safety. Sessions continued into the afternoon and we spent a great deal of time on understanding SeeYou and how to use the analytics to improve our performance. Coaches had some of their own flight logs for analysis, and we started seeing the power that this prduct provides. As for flying, well, more rain fell on this day than fell across the region during the whole of summer - yep, we managed to break the drought.

Monday 1 February. Today was the first day we received a remote presentation. Matt Gage made an excellent presentation via remote meeting technology. He used one of his flights at the Nationals as the core of his presentation on how to fly further and do more with analysis. This session was followed by a bit of a mad panic as the sky was clear, the ground had dried out and it was time to fly. Some furious rigging and area check flights were completed and we headed off on our first task - a 3-hour AAT to the south. The first leg yielded some excellent practice in making progress with a 3,000ft ceiling, but it quickly improved and cu appeared. Some strong climbs were enjoyed over the Grampians. Well done to Patrick Dunn who managed to fly into all sectors and return home.

Tuesday 2 February. Time to get to the youth and see what is on the minds of our junior team. Ailsa McMillan took her turn presenting remotely on preparing for a 1,000km flight - a feat that she achieved shortly after leaving school! Ailsa went through what she does to prepare for long flights and left us with the motivation to give it a try. Unfortunately, the weather today was not suitable for flying today, so we took the afternoon off after a couple of further presentations from John Orton on contemporary instrumentation and David Wilson on weather interpretation.

Wednesday 3 February. Remote lecture 3 was prepared and delivered by Terry Cubley, using the GFA Goto meeting technology. It worked beautifully and Terry's content was

LEFT: The group waving to Terry Cubley thanking him for his presentation.

BELOW: Alf McMillan launching.

excellent, providing deep insight into how he flies fast. Terry reviewed the last day of the Keepit Nationals and provided some very interesting thoughts on the factors to manage to improve your speed. A task was then set and flown in the afternoon - however the day was quite tricky and most stayed fairly close to Horsham. We did manage to get some outlanding practice in with four gliders finding paddocks - mercifully nearby.

Thursday 4 February. We spent the morning lecture time focused on flight analysis techniques as well as reflecting on an excellent note sent to us by Matthew Scutter. We read the note as a prelude to reviewing his flight on the second last day of the JWGC. It was a very impressive story and his flight log illustrated just how hard he and several others fought to get home and ultimately win the World Championships. Thursday's task was another exercise in character building with weak and windy weather preventing long tasks. Several pilots did push out, with all but three getting home.

Friday 5 February. As this was the last day, we devoted our lecture time to wrapping up the week. Overall feedback was that the week went well, weather aside, and that the remote presentations were a real feature of the week. We did manage, though, to get a reasonable day to finish with and several pilots managed tasks of over 200km.

As ever, weeks like this owe their success to many. Our thanks go to Ian Grant, President of the VS for all his little background admin activities, the locals at Horsham Flying Club including Selwyn, Peter and Griffo who gave us local operations briefings and flew the tugs and the lady who brought morning tea every day! GA

50TH HORSHAM COMPETITION

BY LYNETTE DUNN
PHOTOS: JUDITH CONSTABLE

Having attended many competitions as crew over the years I have found the Horsham Week Competition to be especially friendly and welcoming. Horsham Week provides opportunities for all levels of competition flying.

ABOVE: Contest Director Ian Grant

During the week prior to the event on Monday 1 February, my husband Haidyn Dunn took a launch from Waikerie, in very marginal weather, to fly to Horsham. The tug pilot was David Schenke, who flew a KA6 at the first Horsham competition. Upon Haidyn's arrival at Horsham, he was greeted by son Patrick who was flying at Coaching Week. I followed next day with the trailer!

On Saturday, Competition Director Ian Grant welcomed all including the Mayor and Council members. A briefing followed and task sheets were provided. A fairly strong blue day with some weak patches was predicted. Heights to 7,000ft and good speeds were achieved.

50TH ANNIVERSARY DINNER

A dinner in the evening celebrating the 50th Anniversary of the Horsham Gliding Competition was well attended. It included much reminiscing with Alan Patching, Tony Tabart, Max Hedt and Haidyn relating their individual stories. Tony and Haidyn are competing this year, after competing 50 years ago in the first Horsham Week.

BELOW: Max Hedt and Trophy

David Wilson, although not flying at the first two Horsham competitions, has flown every year since, except for one or two. Nostalgic photos, newspaper articles and Guest Book attendances from 1967 were displayed and made interesting reading. A delicious meal was prepared by Lorelle and her volunteers and enjoyed by all.

CUMULUS FILLED SKY

Weather was predicted to be blue, however, during gridding and launching, cumulus clouds gradually filled the sky to 9,000ft. Tasks over 400km for Open/18M, 15M/Standard, plus smaller AAT for Club class, were achieved. Speeds over 100km/hour brought many smiling faces, as some pilots achieved their fastest speeds.

Today, Keith Willis, sniffer pilot in his PW5, reached a personal goal of 500 flights of -hour duration. Well done, Keith!

TEMPERATURE TRACE

After a cancelled day due to weather, a temp trace was flown. David Wilson explained that the conditions would be similar to yesterday. A trough was moving a little to the east and conditions were not suitable for tasking. The day was cancelled and the pilots' meeting followed briefing.

No flying provided an opportunity to visit the surrounds of Horsham - the stunning natural beauty of Mt Arapiles, the peaceful scenery of Halls Gap and the Grampians. The Horsham Arts Council is celebrating its 50th Anniversary Spectacular and there are many cafés, coffee shops and so on in which to meet and relax.

AAT TASKS FOR ALL CLASSES.

On Wednesday the tasked area was under thick cirrus from a weak cold front sliding away to the south that affected the heating and thermal strengths over the tasked area. A number of outlandings resulted, and a difficult day for pilots. Peter Champness, who was retrieved by Mike 'Wombat' Cleaver, released at 1,200 ft and just made it home. Maybe a contender for the turkey award?

The next day a fixed task today for all classes was set, Open/18M 311.4km, Standard the same except for the starting point.

XCSoar, RASP and David's interpretation of weather for the day, using his modelling, again provided an accurate forecast. Open/18M class went to Task B 258.91km.

On Friday, the Max (Hedt) task, first introduced in the 1970s, was reintroduced for this conetst. Max was one of the founding members of the Wimmera Soaring Club, now renamed the Horsham Flying Club. The Max task is basically a distance task adapted to AAT rules.

David Wilson predicted a blue day with a light westerly drift, and maybe a few cu's, a late seabreeze if there is one. Temperature was predicted at 35°C. Additional printed information on the weather was provided to assist for the free distance task. Discussion ensued regarding the tasking!

DIFFICULT DAY

David Wilson stated that Sunday would be a most difficult day to forecast. Prefrontal cloud then a cold front approached today, with wind getting stronger from the west during the day. In the end the day was cancelled.

PRESENTATION DINNER

The presentation barbeque dinner was enjoyed by all and provided an opportunity to socialize. The raffle was drawn with Craig Dilks as the lucky winner of the Tablet.

Competition Director Ian Grant thanked all those who contributed to the success of the competition. In particular President of the Horsham Flying Club Arnold Niewand, Ops Director Selwyn Ellis, Safety Officer Mike Cleaver, Scorer Tim Shirley, Task Setting Jarek Mosiejewski, Weather David Wilson, and Lorelle, Sue and Steven in the kitchen. Lorelle has given 35 years to supporting the club kitchen.

The Turkey Award was presented to 'three older turkeys' - David Wilson, Haidyn Dunn and Tony Tabart.

The Max Hedt Vintage Trophy Award for best placed wooden glider was awarded to Peter Champness.

JUNIOR PILOTS

Following the presentation of trophies, pilots Ailsa McMillan and James Nugent were asked questions about their recent experiences at the Junior World Competition held at Benalla. They provided an interesting discussion. It was a fitting completion to a very well run, enjoyable and friendly competition with the youngest and 50th year pilots and many in betweens!

It may be that Horsham Week is the longest continually running competition in Australia, and possibly the world. With that in mind, encourage those you know to come along next year for a week of competitive flying, socializing and good times so that we enable the iconic Horsham Competition to remain well attended and grow in future years – maybe the next 50!

GA

BELOW: Keith Willis who flew his 500th five hour flight in his PW5.

TOP: 50 years on - David Wilson, Haidyn Dunn, Tony Tabart.

ABOVE: Winners 15M / Standard - Jack Hart, Andy Smith.

LEFT: Mike Cleaver, Safety Officer.

50TH HORSHAM WEEK
HORSHAM
6 - 13 FEBRUARY 2016

OPEN /18 METRE

1 PI	MARK PATERSON	HPH 304S SHARK	4,720
2 ZV	HAIDYN DUNN	ASW 28/18M	4,200
3 FJS	PETER BUSKENS	JS 1 REVELATION	3,928

15 METRE / STANDARD

1 PH	JACK HART	DG 400	4,406
2 GJ	JOHN ORTON	SZD 55	4,400
3 TB	ANDY SMITH	VENTUS	4,333

CLUB

1 RY	PHILIP RITCHIE	MOSQUITO	4,751
2 VH	BERNIE SIZER	PIK 20 B	4,734
3 WQF	JAREK MOSIEJEWSKI	PIK 20 B	4,541
4			

FULL RESULTS AT **www.soaringspot.com/horsham-week-2016**

SILENT ADVENTURE AT VARESE

BY MARK DALTON

Mark Dalton discovers the Silent is golden when in northern Italy for a flight in Alisport's electric-powered self-launcher.

ABOVE: Beautiful Lake Maggiore.

BELOW: Varese is north of Mllan and just south of Lake Maggiore, which stretches up to the Swiss Canton of Ticino in the north.

Nestled in the foothills of the Italian Alps, on the shores of Lake Varese, sits a charming airfield, home to the Aero Club Adele Orsi. Or at least this is how I would have described the place if I were working for a travel company.

I had travelled to Milan, having arranged a flight in Alisport's electric-powered selflauncher, the Silent 2 Electro. The short drive from Milan was relatively unremarkable, unless you take into account the fact that Italian drivers view the road markings on the motorways as more of an interesting suggestion at best and a minor inconvenience at worst.

The standard Italian driver feels that it is his right to drive pretty much wherever he pleases and at any speed, which often includes high-speed overtaking on the inside. Of course, this playful fun frequently leads to highly enjoyable exchanges of delightfully complex hand gestures between drivers, presumably to indicate their pleasure at being out on the road together and as a sign of Italian friendship and unity. I must say I found the whole thing very pleasant and even tried out a few of the simpler hand gestures myself. Judging by the animated responses, I think they were well received.

On arrival at the club, well before the appointed hour, my Italian companion and I settled down to a very civilised luncheon in the balcony restaurant overlooking the well manicured grass airfield. Beyond this, the vista opened up to the lake itself, with the grandeur of the snow-covered Alps beyond. There was even a sparkling swimming pool just below the restaurant. As we tucked into our respective hors d'oeuvres (or should I say antipasti), I contemplated how elegantly Mediterranean countries, but perhaps particularly Italy, manage to live. And it's not only about the weather. Here in Australia, the weather is often perfect and certainly well suited to outdoor entertainment, but perhaps the style of living here is not as, well, stylish, shall we say, as its European counterparts.

While we were eating, we were entertained by a procession of vintage gliders being towed out to the launch queue, many of which I was unable to identify. A little later, we were met by the very pleasant and personable general manager of Alisport, Stefano Ghiarzo, and his equally likeable technical manager, Matthias. Both spoke English perfectly. However, since my companion was a native Italian, their conversation occasionally lapsed in to rapid-fire Italian. From my very basic understanding of what was said, it went something like this:

Stefano (to my companion): Can he fly?
Companion: Dunno.
S: Why don't you know?
C: I've never seen him fly.
Matthias: But does he seem to know his stuff?
C: Dunno.
S (to M): He's got the right hat. Maybe he'll be OK. We'd better do an aerotow launch though.
M: Isn't he that bloke who landed wheels up and then wrote about it in S&G?
S: Oh God…

At least that seemed to be the gist of it. In the ensuing pleasantries I happened to mention how unusual I thought it was to have a swimming pool at a gliding club.

"That is not a swimming pool," said Stefano, with what I thought was a hint of a smile. "It is the reserve water supply for the emergency fire service." He was trying hard not to smile. I had to suppress a laugh. It is interesting how imaginative people can be when faced with bureaucratic red tape. In this case, the problem of the need for a forbidden swimming pool was solved by merely renaming the aforementioned body of water as something else. Presumably there was nothing in the rules prohibiting human immersion in said glittering pool.

Anyway, after that, for reasons which are not clear, I was treated like royalty. The Italians really know how to turn it on hospitality wise. And yet I did not feel that I deserved it. Perhaps there had been some case of mistaken identity, rather like that episode in Fawlty Towers where Basil Fawlty mistakes a hotel guest for an undercover food critic. In any case, I was not complaining as I was gently ushered to the hangar, where my faithful steed stood glinting in the sunlight.

I jumped into the very comfortable cockpit and was quickly shown all the usual controls. With one exception. On the left of the panel was a large switch with OFF and ON clearly marked. Beside that was positioned a rotary knob.

"That is for the engine," stated Stefano. "Motor," corrected Matthias. (He WAS the chief engineer, after all!)

Matthias then showed me the complicated way of starting the electric motor. Switch the switch, turn the knob. Take off - or go home. That's it. Absurdly simple. The motor ran with a throaty whine (if there is such a thing) and, after switching off, the blades settled neatly back alongside the nose. All very reassuring.

By now the vintage gliders were launching and it was time to fly. As we towed out to the runway, after being introduced to several Robertos and Albertos, I was unceremoniously launched skyward by aerotow. I had been previously firmly told that this was to be the method of launch as using the electric motor as a launcher 'could be a bit tricky' and 'requires concentration', or words to that effect. Clearly my companion had not sufficiently reassured the two gentlemen as to my abilities. And I could not, in all honesty, blame them.

The launch was uneventful, apart from being told to 'go up' by the tuggie. We do low tows in Australia and I clearly was not concentrating enough. The flight itself was an absolute joy. With the glittering Lake Maggiori below me and snow-covered mountains in the distance, the scene reminded me of those 1960s cinema advertisements for Peter Stuyvesant cigarettes, where curiously handsome and healthy men and women dressed in loose white linen cavort about in beautifully crafted speed boats on the crystal lakes of northern Italy (presumably all wondering where their next gasper was coming from).

There was even what looked, from a distance, like a castle perched precariously on a nearby cliff face. On closer inspection, it appeared to be bristling with radio and TV antennae with a variety of satellite dishes included for good measure. It was the sort of castle one expects to see in an old Bond movie, belonging to the Bad Guy intent on world domination. Bad Guy (stroking white fluffy cat): "Ah, Mr Bond. We've been expecting you." Bond (handcuffed): "Do you expect me to talk?" Bad Guy: "No, Mr Bond, we expect you to die…" [Demonic laugh] [fade]

It's amazing where the mind wanders when you're having fun! After an hour or so, I reluctantly turned for home. After a brief period at VNE, I set up for the downwind leg and called downwind. Stefano came on the radio, "Mark, have you put the wheel down?" "Affirm. Wheel is down and locked." "Mark, are you sure?" I thought I detected a smile in his voice.

ABOVE: The Silent 2 Electro on its maiden flight.

I think Stefano had definitely read that episode of S&G where I failed to put the wheel down. I did, however, triple check that it was, indeed, down and locked.

The landing was straightforward, if a little unnerving, since standard procedure is to land in the opposite direction of take-off. That is, downwind. When I asked about this before the flight, I was told that they 'didn't do this if the wind is strong'. I walked away from that conversation with some confusion as to whether something had been lost in the translation.

As for the glider itself? It's a wonderful example of the best of Italian engineering, coupled with the convenience of an electric self-launcher. Whichever way you look at it, as battery technology improves, field landings will become a thing of the past. It is, in my view, the way of the future. As we rolled the glider back in to its hangar, I tentatively asked how much I owed for the flight. "Nothing," said Stefano. "But," I felt like saying, "I'm really not an undercover glider critic working for a really important international organisation." GA

BELOW: Mark about to fly the Silent 2 Electro at Aero Club Adele Orsi on the shores of Lake Varese.

Find out more about Aero Club Adele Orsi at acao.it
Alisport alisport.com

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HOOKED FROM MY FIRST FLIGHT

BY MAX ROSE

Little did I know when I went to visit the small Grafton Gliding club hanger for the first time that I would be staying for more than a short visit.

Tentatively wandering through the carefully arranged gliders I had no idea what controlled the planes, let alone that I would be allowed to fly one by myself after some training. I was hooked from my first flight … and so were my siblings, who desperately asked Mum and Dad if they could go for a joy flight as well - showing that for every training teenager, there are usually a few jealous sibling joy flights!

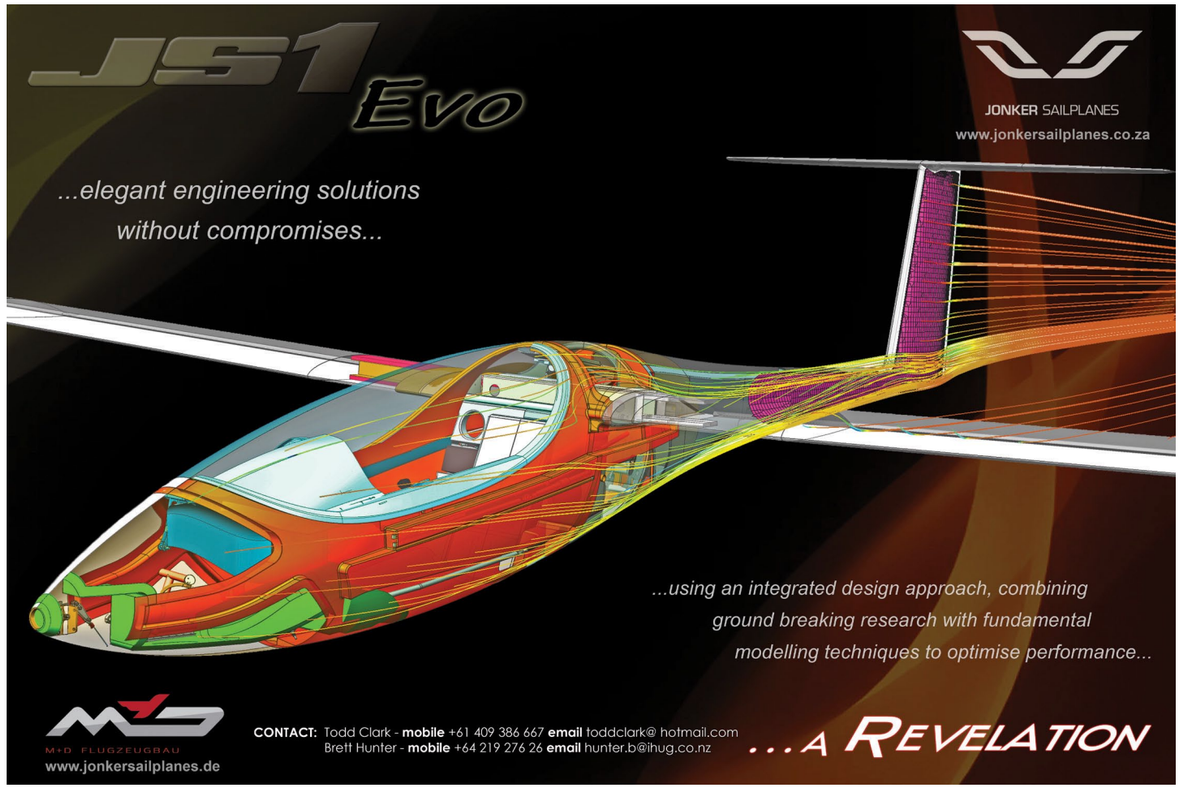
Over the months that followed, I learned the ins and outs of the small club. With about six active members, everyone has an important role to play. Becoming authorized as a winch driver meant learning to herd cattle off the strip to give the 'strip and airspace clear' command. A slightly deflated tire during the daily inspection meant a little bit of ingenuity with oil drums and levers to jack the glider off the ground. I was introduced to the ancient art of rope splicing after two consecutive cable breaks, and there were always cow patties to be shovelled off the ground roll. My experience was not limited to flying and levering but being involved in the clubs' operations. I would watch in awe as senior members took off in the Libelles and wouldn't be seen again until hours later.

Only with a little more experience, when I could more accurately feel a thermal, could you convince me flying cross country wasn't sorcery - a concept that many young people I talk to still can't understand.

But there were also things I was able to teach other members. For the first time the club could be found online via a Facebook page and there was normally a young set of legs willing to run a wing. Getting sucked into forums and online videos, I would have to balance my time to make sure I keep studying. Commitments such as school kept me from attending every weekend though I tried my best to keep as current as I could. This ultimately hindered my progress through the syllabus though I made sure I savoured every minute of time spent out at the strip.

A family trip to New Zealand meant the opportunity to fly a Duo discus in Omarama, an experience that truly showed the difference technology has made from the vintage 50-year-old k7 that I had been flying. Although there was no lift to be found on the day, it was amazing to see the difference between a small club such as Grafton and a commercial operation where a pilot is somewhat separated from daily operations. I began to appreciate the simplicity of the old gliders when watching and assisting in the form 2's, learning valuable skills along the way.

Eventually came the day of my first solo. After having a check ride my instructor Warren suggested one more. It was only after I completed my basic checks that he quickly jumped out, secured the back harness and told me it was all mine, citing later that it didn't give me enough time to get nervous! That day I managed to float around the airstrip for over an hour reaching my Silver C height of 4,500ft before reluctantly coming down to give some others a go. With the ever increasing pressure of the HSC approaching I hope to continue flying at the club for as long as possible, eager to continue in hope of some badges. A massive thanks goes to the small Grafton crew for giving up the time to keep us flying. I keenly wait for each Saturday to hoist the windsock up in preparation for another flying day. GA



HYDRAULIC JUMP PART 2

Bernard Eckey continues his research into this fascinating weather phenomena.

Pseudo lenticular of the Hydraulic Jump

The general concept of a Hydraulic Jump was introduced in the December/January issue of **GA.** I'm very grateful to the surprisingly large number of fellow pilots who have provided feedback and passed on their practical experiences. More on that later!

Let's start with a little recap and a definition. A hydraulic jump occurs when a medium travelling at high velocity transitions into a zone of lower velocity. When this medium is abruptly slowed, its initial kinetic energy is converted into potential energy by piling up on top of itself. For illustration purposes the spillway photo is reproduced below but interested readers can easily create a hydraulic jump at home. By fully opening the tap above the kitchen sink the effect can be observed on a small scale.

Another even more impressive photo was found on the Internet. It shows fast flowing water draining off a reef on the far left and by doing so it is forming a hydraulic jump on the right of the picture. [See photo next page.]

Although the density of air is only about 1/800 of water, scientific papers and practical experience suggest that the vertical extent of such a hydraulic jump can be even more substantial in the atmosphere.

Figure 1: Hydraulic Jump at spillway

DELVING INTO RESEARCH LITERATURE

As part of my research into this phenomenon I obtained a copy of **Jean-Marie Clément's** new book '***Dancing with the Wind***'. It contains 26 pages on the subject and highlights that the scientist **Giorgio Bidone** already provided the theoretical basis of the hydraulic jump in 1819. Although it is a regular occurrence in mountainous terrain or hilly areas, it has not yet found its way into gliding literature after almost 200 years.

Back to more practical matters now and on to the question of how we can identify the hydraulic jump and distinguish it from the much better known lee wave. Clément provides a few clues, allowing us to recognize a hydraulic jump by ground or airborne observations alone. To start with, it is almost always accompanied by an upper level cloud formation which - at its leading edge – can appear similar to a lenticular cloud. Clément uses the term 'pseudo lenticular' when he refers to this high-altitude condensation cloud. It gives its true nature away by a serrated leading edge with comb-like 'teeth' extending hundreds of meters or even several kilometers into wind. By way of an example he has kindly made the picture above and he believes that the hydraulic jump can even be encountered over relatively flat ground. In this case the initial trigger would be an air mass (cold and/or dry) flowing across a convergence.

To allow readers a comparison with classic lenticular clouds I have included a photo taken while flying in New Zealand. [See photo on opposite page.]

Glider pilots with practical hydraulic jump experience know that – compared to conventional lee wave - the hydraulic jump updraught extends over a larger area but generally provides more moderate climb rates. Classic lenticular clouds are usually bulging at the top and can often be identified by the Foehn gap as well as their arrangement in rows running parallel to the obstacle on the ground. The pseudo lenticular of the hydraulic jump, however, is mostly flat and can extend over tens of kilometers downwind. By far the most important characteristic, however, is an almost total absence of downwind secondary or tertiary airflow oscillations.

But Bidone is not the only scientist who has studied the hydraulic jump in detail. The American Meteorological Society published two scientific papers by L Armi & G Mary in 2011. The most relevant one is titled 'The descending stratified flow and internal hydraulic jump in the lee of the Sierras'. The authors investigated a westerly airflow across the Sierra Nevada ranges in California including the downslope flow into the Owens Valley, which is located just to the east of it. Feel free to contact me at Eckey@internode.on.net if you are keen to wade through 17 pages of scientific papers and require a copy. The following is an attempt at an abstract with an emphasis on practical implications and without naming any topographical features of the area.

The research states that air density differences upstream and downstream of a mountain barrier are crucial for a development of a descending flow into a downwind valley. Even a strong cross-barrier flow is not sufficient to cause air to flow towards the valley floor on the lee side. Although the air overflowing the barrier is typically colder, it only descends into the downstream valley if its temperature has fallen to match the potential temperature of the downstream valley floor. (For an explanation of 'potential temperature' refer to the insert over the page.)

Air creeping through various mountain passes prior to the onset of the hydraulic jump is referred to as 'gap overflow' but it was found to have no bearing on the subsequent event. Only when the bulk of the air mass - the substantially thicker 'jump layer' - crossed the barrier the hydraulic jump was triggered and was subsequently confirmed by soundings and observations. Simultaneous airborne measurements from within the University of Wyoming's research aircraft (King Air) found that the hydraulic jump only occurred in a single location and provided updraughts of up to 7 m/sec (14 knots). The 'waving aloft' extended to an altitude of around 22,000ft. Lower down, the air was moist enough to form clouds who's thickness and extent was recorded by the aircraft's cloud radar. Subsequent evaluations also confirmed only a single airflow oscillation and a gradual downwind collapse of cloud patterns. These findings are in line with the practical experiences of Jean-Marie Clément and indicate that the visible effects observed with fluids can be directly applicable to the atmosphere.

Meteorologists use 'potential temperature' to compare the properties of various air parcels located at different levels in the troposphere. Temperatures normally decrease with altitude and to allow proper temperature comparisons they bring air parcels adiabatically to a standard level of 1,000 millibars.

PRACTICAL EXAMPLES

By now it would be obvious that the hydraulic jump is caused by a fast flowing downslope airflow and gets triggered when it is slowed to a critical velocity or when it collides with an orographic obstacle. With conventional lee wave the likely area of lift can be determined by a rule of thumb, which states that it is normally located around ½ wavelength from the summit. This is clearly not the case with the hydraulic jump! According to Clément it is found much further away from the mountain range and can be located downwind as much as 5 to 10 times the wavelength of a classic lee wave. The meteorological conditions for lee wave are also vastly different.

Hydraulic jump in the ocean.

Now to more practical matters and to reports from fellow pilots who have responded to my request for feedback in the December/January issue of **GA**. The first response was received from **Alan Patching** who reported on a flight downwind of the escarpment at Bacchus Marsh. He stated, "Derek Reid - a very good meteorologist and glider pilot - had a winch launch that broke the wire at about 200 feet and he climbed away 'zig-zagging' long enough to give us a reason for the flight which he called Hydraulic Jump."

Barry Hendy provided feedback on a flight in a Super Dimona over the Yarra Valley. The flight was accompanied by severe turbulence and variometer indications of ±1000 ft/min. Quote: "I tried to 'push forward' thinking I was in the rotor but I could not engage any wave either forward or backwards of the buoyant but turbulent lift area."

John Gwyther submitted another valuable contribution. His airfield is in the lee of the Great Dividing Ranges in Gippsland from where he operates a self-launching ASH 26 E glider. He has taken video clips of cloud formations and believes that one of them shows the underside of a hydraulic jump. He writes, "I'm now looking at my memories of wave-like clouds down here….. and believe that the hydraulic jump occurs relatively frequently. It shows up on radar with strong NW winds and showers on the main range…"

Classic lenticular lee wave.

Terry Jones – a New Zealand based glider pilot - is pointing out that the phenomenon is often encountered in

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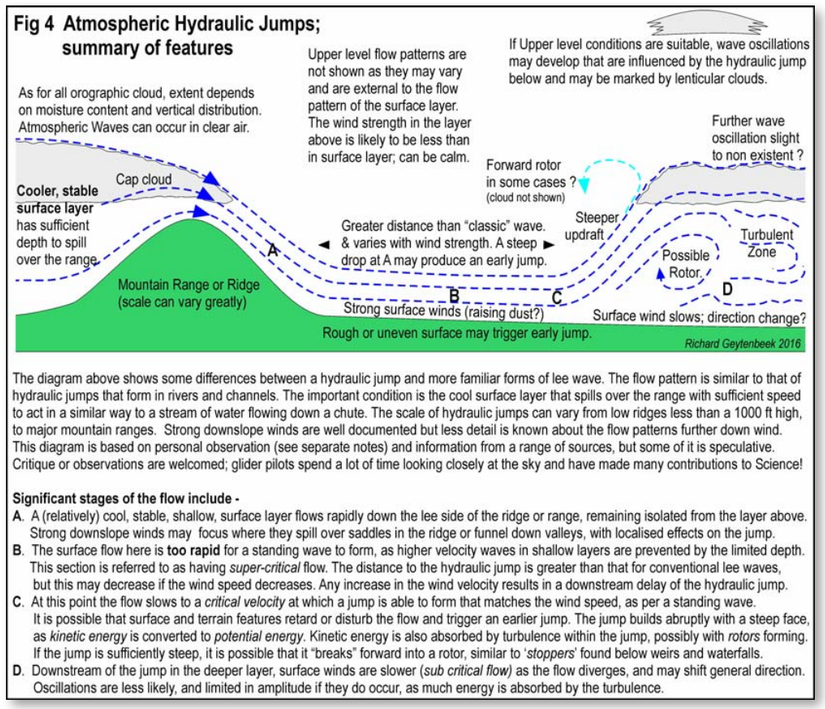


The diagram above shows some differences between a hydraulic jump and more familiar forms of lee wave. The flow pattern is similar to that of hydraulic jumps that form in rivers and channels. The important condition is the cool surface layer that spills over the range with sufficient speed to act in a similar way to a stream of water flowing down a chute. The scale of hydraulic jumps can vary from low ridges less than a 1000 ft high, to major mountain ranges. Strong downslope winds are well documented but less detail is known about the flow patterns further down wind. This diagram is based on personal observation (see separate notes) and information from a range of sources, but some of it is speculative. Critique or observations are welcomed; glider pilots spend a lot of time looking closely at the sky and have made many contributions to Science!

Significant stages of the flow include -

A. A (relatively) cool, stable, shallow, surface layer flows rapidly down the lee side of the ridge or range, remaining isolated from the layer above. Strong downslope winds may focus where they spill over saddles in the ridge or funnel down valleys, with localised effects on the jump.

B. The surface flow here is **too rapid** for a standing wave to form, as higher velocity waves in shallow layers are prevented by the limited depth. This section is referred to as having *super-critical* flow. The distance to the hydraulic jump is greater than that for conventional lee waves, but this may decrease if the wind speed decreases. Any increase in the wind velocity results in a downstream delay of the hydraulic jump.

C. At this point the flow slows to a *critical velocity* at which a jump is able to form that matches the wind speed, as per a standing wave. It is possible that surface and terrain features retard or disturb the flow and trigger an earlier jump. The jump builds abruptly with a steep face, as *kinetic energy* is converted to *potential energy*. Kinetic energy is also absorbed by turbulence within the jump, possibly with *rotors* forming. If the jump is sufficiently steep, it is possible that it "breaks" forward into a rotor, similar to '*stoppers*' found below weirs and waterfalls.

D. Downstream of the jump in the deeper layer, surface winds are slower (*sub critical flow*) as the flow diverges, and may shift general direction. Oscillations are less likely, and limited in amplitude if they do occur, as much energy is absorbed by the turbulence.

the area around Mt Cook. Colder air often pours over from the West Coast and descends close to the steep slopes into the valley floors below – a drop between 3,000 to 4,500ft. Terry goes on to say that the resulting lift is quite reliable, but due to the rather special topography the air bounces back very close to the descending air mass. (I have witnessed this downslope flow of clouds myself but have never been game to get close due to a total lack of outlanding options in the area.)

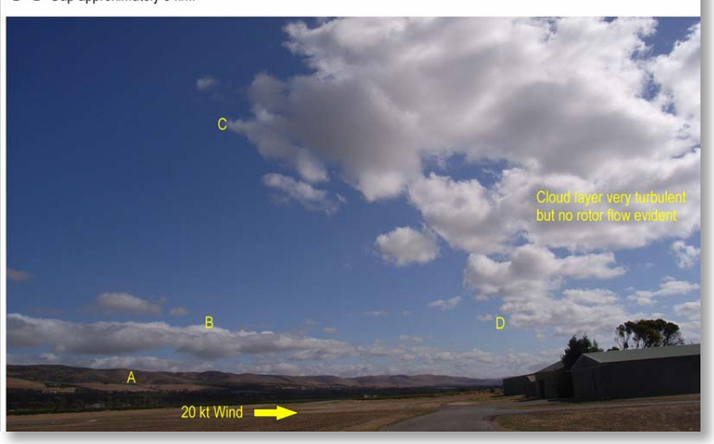
Richard Geytenbeek, a highly experienced glider and power pilot, has provided by far the most extensive input, which is reprinted in full next.

HYDRAULIC JUMP OBSERVATIONS, RICHARD GEYTENBEEK

I have observed what I believe to be hydraulic jumps on a number of occasions along the Mt Lofty Ranges in South Australia. I have for many years lived within the zone of strong down-slope winds (known locally as gully winds) that blow over the Eastern suburbs of Adelaide when cooler maritime air spills over the range with winds approximately from the South East. These are strongest at night, aided by surface cooling, but can begin before sunset and persist into the next day. I have sometimes observed a line of ragged standing clouds that develops several kilometres to the lee of the ranges, at the point where strong surface winds abate beneath the clouds, an indication of a possible jump. Further south at Aldinga Airfield, I photographed a similar cloud line [see below left]. The surface wind was 15-20kts and the internal cloud motion was very turbulent. The cloud-free gap from the range was approximately 3km, significantly greater than the gap observed for classic low level lee waves that I have soared, along similar low ridges near Burra to the North.

The most convincing example of an atmospheric hydraulic jump that I have seen was in a layer of maritime air in Backstairs Passage between the Fleurieu Peninsula and Kangaroo Island, SA. This layer was made visible by sea fog [next page]. The fog approached from the SE as a smooth layer visible to the horizon, converging to pass through Backstairs Passage. Where the layer slowed as Backstairs Passage widens, it jumped abruptly into a smooth hydraulic jump that maintained position for more than an hour. This was the smooth undular form (having a smooth surface below), rather than the turbulent form seen in the spectacular Owens Valley photo taken by Robert Symons. There were several downwind oscillations, similar to undular bores in tidal rivers. (Try Google images.) In this case the rapid flow and subsequent slowing resulted from the lateral constriction of the adjacent coastline, a common occurrence in rivers where hydraulic jumps can occur as constricting banks widen. I took photos, temperature and wind observations to the Bureau of Meteorology in Adelaide where Dr Warwick Grace confirmed that this was a hydraulic jump. Warwick subsequently prepared a paper on this event, having previously conducted extensive research on hydraulic jumps in the down-slope winds of the Mount Lofty Ranges, including the use of a motor glider and sounding balloons to gather data. I would like to thank him for kindly providing papers and texts to further my interest and for reviewing my annotated diagram for this article. The sea fog example supports the possibility of atmospheric hydraulic jumps forming or being accentuated where a cool surface layer spills through saddles in ridgelines, or emerges from larger valleys.

Fig 5 Cloud band (standing) over Aldinga Airfield SA, looking approximately South, January 2008
A North-Western edge of Willunga Scarp approximately 1100 feet above airfield elevation.
B Cloud layer above Willunga Scarp.
C - D Leading edge of cloud band aligned crosswind above Aldinga Airfield
B - D Gap approximately 3 km.



CONCLUSION AND OUTLOOK

Hopefully these two articles are helping to shed light on a phenomenon that has so far attracted little interest among the wider aviation community. Surprisingly, even the worldwide gliding fraternity has almost completely overlooked this very valuable source of soaring energy but almost 200 years after Giorgio Bidone first established the theoretical fundamentals this topic is finally creeping into gliding literature. Bidone might have based his theories on fluids but thanks to his scientific groundwork we can now explain some mysterious encounters with large-scale areas of lift. Perhaps we would be well advised to replace the name 'hydraulic jump' with another term that better reflects this near vertical air mass deflection and one that glider pilots around the world can better identify with.

Let's learn from each other and freely share our experience with this very interesting phenomenon. Ongoing feedback would be most welcome, as it will help to identify areas where hydraulic jumps are frequently encountered. My sincere THANK YOU goes to all fellow glider pilots who have already done so. Pease contact me on:

eckey@internode.on.net.

Fig 6 Hydraulic Jump in sea fog near Cape Jervis SA, looking West, 2 May 1988
A Extensive surface fog layer approximately 300 ft deep.
B Face of Hydraulic Jump to approximately 1200 ft AMSL
C - D Coastline of Backstairs Passage.

Any relevant feedback or practical experience could well provide a clearer picture. It will help to gain a better insight into this aspect of our sport and might even be incorporated into future publications on this interesting topic. Many thanks in advance!

BERNARD ECKEY

GA

CONVERGENCES AT BATHURST

My home club is Bathurst Soaring Club located on the western edge of the Great Dividing Range in the Macquarie River plain, 200km from Sydney and the ocean. Famously, the Blue Mountains lie between the coast and Bathurst.

We frequently get convergences of air that come across the mountains from the east and collide with a warmer, drier airmass coming from the western slopes and plains.

Bands of clouds quickly set up along the hills about 20km from our club at Pipers Field. It can be very rewarding and fun to surf the convergence. Often the line of clouds will march out from the hills heading west. Whisps of cloud will form at the front like wave clouds. They grow, then another whisp forms ahead and so on until you are soaring the line directly above Pipers.

I took the photo above in February. It shows the lower step cloud to the east and higher cloud to the west. In fact, three levels of clouds can be seen. In this dynamic system, sustained climbs of 9-10 kts were achieved.

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

NATIONALS OF THE WORLD

BY TIM SHIRLEY
PHOTOS BY JUTTA GOLD MANN AND AL SIM

The 54th Multiclass Nationals were held at Benalla from 4 to 15 January 2016. This was one of the largest Nationals ever held, with 77 gliders in three classes – 17 in Open Class, 28 in 18 metre and 32 in 15 metre. We had eight tugs, seven Pawnees and an 'Airtruck' - unlikely looking, but it did well.

The Nationals, themed Ozglide, also served as the Pre-worlds for **WGC2017** whIch will be held at Benalla **8-21 January** next year.

There were 28 overseas entrants who came to familiarise themselves with the WCGC contest area. The countries represented were **Austria** (1), **Czech Republic** (1), **Finland** (1), **France** (5), **Germany** (1), **Hungary** (4), **Italy** (1), **Japan** (1), **New Zealand** (5), **South Africa** (2), **Sweden** (2) and **USA** (4).

The most common glider type was the ASG29 (17), followed by LS8 (13) and JS1 (11). As you can tell, a fairly serious grid!

Briefings were held in BPACC (Benalla Performing Arts and Convention Centre). This is a 300-seat professional theatre complex a short walk from the airfield, and provided a very good environment for the briefings with a professional sound system and technician, and a full sized theatre screen. For Ozglide, we were limited in the time we could spend there, but for the Worlds the time will be extended.

GOOD MIX OF WEATHER

The weather was variable with both good and weak days, and a couple of days of very strong northerly and southerly winds that resulted in cancellations or difficult crosswind takeoffs. Tasking was a mixture of racing and AAT tasks, start lines were used throughout, and the finish was a 3km circle with most finishes from the East onto runway 26. In total, seven days were flown in 15M and 18M and six in Open Class.

The first contest day saw difficult conditions with a 3.5 hour AAT for 15M class and 3 hours for the others. There were quite a number of outlandings in each class, and the conditions saw everyone working hard. Day winners were Bruce Taylor in Open Class, David Jansen in 18M and Matthew Scutter in 15M.

Day 2 had good conditions, with four 500km tasks for all classes. There were no outlandings. Open Class was won by Ian Craigie at 136kph, Tom Claffey at 131kph in 18M, and again Matthew Scutter won 15M at a speed of 121kph.

FIRST DAY WIN FOR BRYAN HAYHOW

The next day was slow and difficult day for many, with a lot of speeds less than 100kph for the day. The tasks went north of the Murray River, but not too far. Bryan Hayhow in a Discus was the winner in 15M class at 102kph – his first day win in a Nationals. Peter Temple won in 18M class at 109kph, and in Open Class Scott Percival, with Ingo Renner as co-pilot, was first in his ASH25.

On Day 4 the weather conditions were average to good with tasks to the west and then north. Tasks had to be reset on the grid, but eventually the day started and after that some good racing was had. Ian Craigie was best in Open Class at 134 kph, 18M found the going tough around Murchison and John Buchanan won at 115kph. Adam Woolley won 15M class at 124kph.

STRONG DAY

The next racing day started late but was strong once it got going. Racing tasks were set, 445km for 15M over flat country and the other 2 classes went into the mountains. 18M had 450km, which was won by Peter Temple by a very wide margin, and Open Class around the Albury airspace with 600 km. Bruce Taylor won with a speed of 145 kph. Norm Bloch won in 15M class at 142 kph - a good day all around.

Monday 11 January was cancelled on the grid, despite some good conditions being forecast, which caused disquiet among some competitors. However, very strong winds and an approaching front made conditions later in the day look dangerous, and so the decision was made on safety grounds.

THE LONGEST DAY

Good forecast conditions saw long racing tasks set for all classes. Open class 556km, 18M 650km, and 15M flew

LEFT TOP: The tugs ready to scramble.

MIDDLE: Tobi Geiger flew in 15M Class and will be representing Australia ath WGC Lithuania in August 2016.

BELOW: Stormy skies over the hills south of Benalla.

OPPOSITE TOP: Ian Craigie came third overall flying a JS1C.
CENTRE: Competition Director Tim Shirley.
BELOW: Benalla tie down area.

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575km. This was a very challenging day and in hindsight was overset. There were many outlandings especially in the 15M class where only 9 of 32 completed the task. However all outlandings were completed safely. 15M class was won by Frenchman Eric Bernard, 18M by John Buchanan at 120kph, and in Open Class the best was first time winner Grant Hudson from Waikerie.

SHORT AND FAST

The final flying day proved to be a difficult day for launching, with extremely strong northerly winds making for crosswind launching right at the limit of what was possible. After considerable delay, the 15M and 18M pilots were launched into booming but stomy conditions on short AAT tasks. Open Class could not be launched due to the crosswind. In 18M only one pilot flew less than 120kph, and the winner was Petr Verebelyi from Hungary at a speed of 160kph. 15M was won by Adam Woolley at 159kph, and 24 of the 32 entrants exceeded 120kph.

The remaining days were not flown due to poor weather. On 14 January a strong southwesterly wind made conditions impossible, and on 15 January a very strong southerly also provided no opportunity.

We had no significant incidents during the event, and only a couple of scratches on gliders during outlandings that did not stop the gliders being flown. There was serious damage in two cases, but not in flight operations – one where a glider rolled off the weighing scales and damaged the rudder, which was repaired and flew the event, and another with wings damaged when it was towed away from its tiedown with the wing straps still attached.

There were no breaches of official airspace, but a few pilots crossed competition airspace boundaries and received small points penalties as a result.

We were grateful for the support of a number of sponsors, the chief ones being **Tallis Wines,** who provided the Day Prizes, and **Supagas,** who provided oxygen for the competitors. Both of these sponsors will also support the World Championships next year.

HIGHLY COMPETITIVE

The event was hotly contested, especially by the Australian pilots who had a realistic chance of selection for the Australian WGC team. Although there was a lot of close gaggling at times, in general the pilots worked well together and there were few reports of safety issues. Despite the large field, pilots were careful and well-behaved when finishing and landing – most landings were straight in or modified circuits when winds required it.

We learned a lot that will help when planning for the Worlds next January, and we certainly appreciated the support and patience of all pilots as we worked through some of the options. The advice from pilots about what worked and what could be improved was also very much appreciated.

RIGHT: Andrew Georgeson landing, followed by Grant Hudson. Andrew finished the contest in second place in Open Class and is on the team for WGC2017.

MIDDLE LEFT: Ingo Renner flew as co-pilot in Open Class with Scott Percival in his ASH25. Ingo won Open Class at the last WGC Benalla in 1987.

BELOW: Matthew Atkinson landing his Ventus 2CX.

VOLUNTEERS

I would like to thank everyone who supported us before and during the event, especially the many GCV members who contributed. Events like these can only work with the willing help of volunteers. This is even more true for the World Championships, and we would like to hear from anyone who is willing to come and give us a hand during the event. **A volunteer register for the Worlds will be on the WGC2017 website by the time this is published.**

Keep up to date with developments in the lead up to WGC2017 Benalla

wgc2017.com

facebook.com/WGCBenalla

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ABOVE: National Champions and WGC2017 Australian Team members, Peter Temple, Matthew Scutter and Bruce Taylor.

RIGHT: Zoltan Verbelyi, Hangary, Best International pilot 18M Class.

TOP: Makoto Ichikawa, Japan, received the award Best International pilot 15M Class.
MIDDLE: Paul Croft received the Sir Donald Anderson Trophy for best performer in 1st or 2nd Nationals
BOTTOM: Adam Woolley with the Bruce Brockhoff, Speed Award for fastest handicapped speed.

54TH MULTICLASS NATIONALS BENALLA

4 -15 JANUARY 2016

OPEN

1 B3	BRUCE TAYLOR	NSW	JS1C	5,695
2 AG	ANDREW GEORGESON	QLD	JS1C	5,606
3 Z5	IAN CRAIGIE	QLD	JS1C	5,394
4 1W	SCOTT PERCIVAL	WA	ASH25M	5,200
5 AM	LEHTO & LUUKKANEN	FINLAND	ARCUS M	5,192

18 METRE

1 PT	PETER TEMPLE	SA	ASG29	6,344
2 BB	JOHN BUCHANAN	QLD	ASG29	6,082
3 T1	TOM CLAFFEY	NSW	ASG29	6,045
4 HI	ZOLTAN VEREBELYI	HUNGARY	ASG29E	5,984
5 FA	PETR SVOBODA	CZECH REPUBLIC	ASG29	5,949

15 METRE

1 A1	MATTHEW SCUTTER	NSW	DISCUS 2A	6,203
2 1A	MAKOTO ICHIKAWA	JAPAN	LS 8	6,085
3 GG	STEPHEN O'DONNELL	QLD	LS 8	5,963
4 LV	NORM BLOCH	WA	LS 8	5,764
5 XLG	MARCUS NOUWENS	SOUTH AFRICA	LS 8	5,696

FULL RESULTS CAT SOARINGSPOT.COM/EN_GB/54TH-AUSTRALIAN-NATIONALS-OZGLIDE-BENALLA-GLD-2016/RESULTS.

20M TWO SEAT NATIONAL CHAMPIONSHIPS

BY BERYL HAARTLEY

This event is slowly growing in size, seemingly due to the import of new high performance two-seater club aircraft. Narromine also seems to be a popular central site for visitors from Queensland, South Australia and Victoria.

The weather provided excellent conditions in which to find the National Champion. The crew of Peter Temple and Brian Rau in Graham Rau's Arcus M won the championships, a second win for Peter following up on last year's success in the DG1000.

The official practise day was a promise of things to come with a cloud base of 14,000ft to the north west and 11,000ft locally. However, a cool change moved in overnight and the first contest day proved to be a day of poor tasking, poor weather and poor terrain. The pilots who fly from sites with similar terrain featured on the day with Peter and Brian along with Graham Rock and Paul Jacobsohn completing the task. Allan Barnes and Dudi Kartohadiprodjo, along with Harry and Wendy Medlicott, finished the last glide on their engines, and Mark Rowe with Phil Eldridge landed just 20 klms from the finish.

The next three days were blue, cool and challenging for both the pilots and the tasksetters to ensure everyone was able to complete a task that suited all the participants. The AAT tasking was a popular choice and had all home except for one unfortunate poor start from the IE team of Graham and Paul and a motor start near the end for Tom and Murray.

The championships have become an excellent venue for a number of pilots seeking a high level of coaching. This year we saw an increasing amount of coaching from the experienced competition pilots and their student partners. Allan Barnes flew with two Indonesian pilots who were anxious to study and learn about soaring championships in Australia. The visitors had an excellent experience with three daily wins and overall second place. Jenny and Jeremy Thompson took turns flying with new Duo Discus owner David Griffin. Terry Cubley partnered with Ian Steventon.

Contest director Paul Thompson brought fluffy cotton balls to the briefing to remind the pilots of the visual clue for cumulus that was promised on the next days and this proved to be the case with excellent fast high conditions.

Day 6 produced a cloud base of 13,000ft. All pilots were ready with oxygen bottles filled and an earlier launch. Peter and Brian zoomed around the task at an average speed of 147.6 kph over a task distance of 563.57 klm. Many of the competitors achieved their fastest personal best flights on this day.

Damien Pasin carried out the daily weighing and ground launching. Fiona Rowe produced daily catering. Contest Director Paul Thompson led the operations crew of Arnie Hartley, safety officer. Brad Naylor, Ken McAnally and Roly Elder were tug pilots. Beryl Hartley was responsible for weather and tasking.

The live track 24 tracking system was carried out daily and managed by Nikki Douglass. This was very popular, with family and friends logging in to follow each day's race.

Tim Bates again did the remote scoring and as usual was a very professional scrutineer of the championships.

A social mix of pilots enjoyed flying together and a fun competitive event over seven successful flying days.

GA
GA

20M TWO SEAT NATIONAL CHAMPIONSHIPS NARROMINE

STD & 15M

1 TEMPLE & RAU	ARCUS M		6,290
2 BARNES & KARTOHADIPRODJO	DUO DISCUS T	5,989	
3 ROWE & ELDRIDGE	DUO DISCUS	5,689	
4. CUBLEY & STEVENTON	DUO DISCUS	5,220	
5. DOWNES & CODLING	DUO DISCUS XL	5,1425	

FULL RESULTS AT soaringspot.com/en_gb/2016-aus-two-seat-nats/results/double-seater

DUELS IN THE DESERT

BY ROLAND STUCK

ABOVE: The six competitors from the left, Roman Mracek, Werner Amann, Rene Vidal, Giorgio Galetto, Tilo Holighaus and Sebastian Kawa

BELOW: Roland Stuck

GLIDING AT THE FAI WORLD AIR GAMES IN DUBAI

Gliding races in the desert at the FAI World Air Games took place in Dubai from 1 to 12 December. IGC member Roland Stuck tells us about this event.

The Federation Aeronautique Internationale (FAI) has tried for years to submit one or more air sports to the Olympic games but without success. To try to compensate for this absence, the FAI has launched its own games, the FAI World Air Games (WAG), bringing together most air sports every four years. The WAG 2015 edition was eagerly awaited because its organization had been entrusted to the Emirate of Dubai, which fosters international recognition by organizing major sporting events. This WAG promised to be even more prestigious as they were actively supported by the Crown Prince, Sheikh Hamdan bin Mohammed bin Rashid Maktoum, an air sports enthusiast and skydiver. The Prince created an important centre for the practice of this sport called SkyDive Dubai, which manages the main sites for the sports that take place at the WAG.

The FAI had insisted that its air sports commission be present at this event. Gliding participation in these games was not without serious problems. Indeed the airspace planned for gliders was only a few square kilometres. The airspace of the Emirate is heavily congested due to the presence of two major international airports and intense activity by the UAE airforce. Also, the hinterland of Dubai is desert and any landout on the distorted sand dunes and scrub might end badly. Finally, the Games were to be held during a not very favourable season for thermal activity since December is also the winter in Dubai, although temperatures remain relatively mild.

NOT TO BE MISSED

Nevertheless, at its plenary meeting in February 2015, the IGC decided that the sport of gliding could not afford to be absent from this great festival of air sports. Personally, I found myself embedded in this case because I was not able to say no to my friend Eric Mozer, President of the IGC, when he asked me to give him a hand to organize in Dubai something that resembles a gliding competition. This project would keep me occupied for quite some months and give me a lot of trouble!

DESIGNING A RACE

Given the restrictions we faced I fairly quickly came to the conclusion that we could organize a pure race competition between two gliders. That's when I remembered the Grand Prix in Luchon organized by the FFVV in 1986 and '88. At the time we had two gliders take off with two tugs and drop them close together at the same height. Both gliders then conducted a number of circuits of the bowl in Luchon, veering around balloons set on the slopes, and the first passing the finish line was the winner. The race was spectacular but was abandoned for safety reasons, as banking the gliders so close to the ground was dangerous. I can testify that this was true as I saw it very close up!

I followed a similar idea for WAG 2015, but tried to do something safer.

Keeping the idea of dropping two gliders at the same altitude and distance from the start line, the plan was to fly around turn points placed on the line of the runway while keeping the gliders to either side of this line. To avoid any risk of collision, the glider that is positioned to the right of the line turns right, while the glider on the left turns left. To avoid low turns, we set a minimum finish line crossing height of 30 meters as we usually do at Grand Prix competitions. To win, you must not look for thermals but optimize the speed of flight and especially anticipate the turns so as to spend as little time as possible in the turning circles [beer cans].

Obviously, this type of race has nothing to do with conventional gliding competitions.

ABOVE: The racing took place at an airfield called the Desert Drop Zone (DZ) 50km from the city of Dubai.

GLIDER MATCH RACING

At first we called this concept 'Parallel Glider Racing' as an analogy with skiing, but then we renamed it 'Glider Match Racing', which seemed sexier because we had to have two heats, semi finals and finals.

At first we could not make good contact with the local organizers through the FAI and we struggled to get accurate answers to our questions. For various reasons, neither Eric nor I were able to attend the first meetings of the organizing committee that took place in Dubai and we could not meet with key local officials until two months before the games. It was not until that moment that the idea really progressed.

On this occasion we visited the two sites where the games would be held. One of them was the Palm Drop Zone situated on the main beach in Dubai, which has a large 800m runway built out into the sea like a jetty! There is also a luxurious paratrooper landing zone and a 'zero gravity' wind tunnel for skydiving training.

DESERT DROP ZONE

The second site, called the Desert Drop Zone (DZ), is near a small village called Margham about 50 kilometres from Dubai. It is equipped with a 1,500m runway, a grassed landing area for parachutists and another turbine indoor sky dive centre. After careful consideration we chose the Desert DZ mainly because we were certain of being able to obtain flight windows of sufficient durations to stage our competition. There was much less flying and parachuting activity at this site than at the Palm Drop Zone. In addition the long track in the desert seemed to us more suitable for simultaneous speed arrivals of two gliders than the short runway of the Palm DZ. We were aware we were going to lose visibility because there would be fewer spectators due to the 50km drive each way in heavy traffic.

Eric Mozer was responsible for the selection of pilots. Given the time we had to put the event together, it was physically impossible to organize national selections. So we decided to invite a dozen pilots from among the pilots of each nation ranked highest in the IGC ranking list. Eric contacted many pilots but few of them accepted the invitation. It is true that they had to pay for the trip, and the competition format was still rather unusual.

Furthermore, we had some late cancellations including that of Didier Hauss, the only French representative, so that only six pilots finally agreed to participate: Sebastian Kawa from Poland, Werner Amann - Austria, Tilo Holighaus - Germany, Giorgio Galetto - Italy, Roman Mracek - Czech Republic and Rene Vidal from Chile.

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FAI WORLD AIR GAMES

The FAI World Air Games is the biggest air sports event in the world. This multi-disciplinary event is the only world competition that brings together the various different air sports and their very best athletes.

The last edition took place in Dubai from 1 to 12 December 2015, hosted by the Emirates Aerosports Federation. The program consisted of the following sports: **aerobatics, aeromodelling, airships, amateur-built aircraft, general aviation, gliding, helicopters, hot air balloons, microlights, parachuting, paragliding and paramotors.**

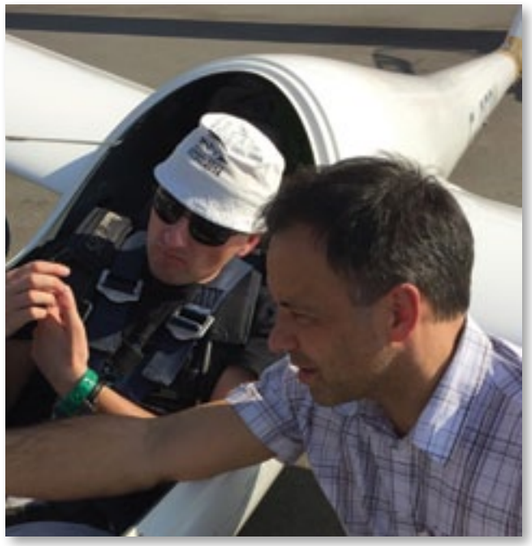
The previous editions of the Games were held in Turkey (1997), Spain (2001) and Italy (2009).

worldairgames.aero

ABOVE: Two gliders landing at the finish of a race. Glider Match Racing involves two gliders at a time in a round robin competition.

RIGHT: Giorgio Galetto

BELOW: Sebastian Kawa helps Roman Mracek with his instructions.



We regret the absence of female pilots although we did invite many.

NO GLIDING IN DUBAI

We also had to take care of logistics. As there is no gliding in Dubai, there was no chance of finding gliders there. We initially tried to rent two self-launching gliders but we drew a blank. Finally I called Jean Emile Rouaux who gave us a big boost by agreeing to rent two 18 metre Discus 2Cs from St Auban to the local organizers. A big thank you to him and our director Luc Guillot, who took care of all the administrative issues, including lease, insurance, shipping by boat and so on. Luckily the two gliders are almost identical, even empty weight, have the same centre of gravity and are equipped with the same instrumentation, LXNAV S 80 and FLARM IGC, which we complemented with Oudies for the pilots to better visualize the circuits. As the competition was a pure glide test and the pilots did not all have the same weight, we had to balance the two machines so that their takeoff weights and centres of gravity were as close as possible for all driver combinations. The Schempp Hirth engineers managed this task by calculating the weight of the lead we put in the nose and/or in the fuselage before the batteries, as well as the amount of water to put in the tail tank. Consequently, the masses of the gliders were the same to around 1kg, and the positions of centres of gravity did not differ by more than a few centimetres!

Another challenge was locating tugs. Organizers initially offered a Pilatus equipped with a 600 hp turbine (!) that would have allowed us to perform double tows, but they finally preferred to use a Super Cub 150 hp belonging to the Prince, and to bring in a Maule 180 hp from Saudi Arabia. The pilots were an Italian and a Hungarian who had good experience towing. At our request the organizers also purchased sufficient towropes, which were shipped in the same trailers at the same time as the lead weights.

We could not validate the concept of 'glider match racing' until rather late. We were able to do some testing in September on a no-fly at the FAI World Grand Prix Final at Varese. Several pilots agreed to be test pilots. We could verify as a result of those tests that a glider with 18 metre wingspan released at 1,000m could keep up spectacular racing for about 20km without risk of exceeding either the outlanding or manoeuvering speed when making the control points. We could then finalize the race setup that is still available on the crosscountry.aero/wag site.

Finally, we set up the team responsible for the technical part of the operation. To view and score the competition, we planned to use the tracking FLARM, which we decided should be possible with a single receiving antenna since the gliders were still quite close to the airport. Mira Valek, a young Czech whom I had met at the Grand Prix Frydlant and who had impressed me with his skills in many areas, built two FLARM receivers to visualize tracking with the latest version of the Silent Wings Viewer scorer and real-time races with crosscountry.aero. We used the new scoring software developed by Alexander Georgas to score Grand Prix.

As head of towing, I recruited my friend Pierre Laulhère. He led tug pilots from the passenger seat of the Maule to release their gliders in the right location and at the right altitude, and perfectly fulfilled his mission. The US delegate to the IGC, Rick Sheppe, completed the team. He was particularly busy with glider instruments - he worked for Cambridge in a past life. He also looked after the website dedicated to gliding tests we had to set up at the last moment because, just two weeks before the games, we were informed that we would not have direct access to the WAG site. Of course, Eric Mozer was also present as a liaison officer with the FAI and as President of the Jury, which fortunately did not receive any complaints. This 'dream team' worked hand and hand with a rare efficiency.

BELOW & CENTRE: Tilo Holighaus ready to race.

BOTTOM: Forbidding country off the end of the runway.

LET THE GAMES BEGIN

Arriving in Dubai a few days before the start of competition under beautiful cumulus, we first went to the Palm DZ to register and pick up our cars. We then travelled to the Desert DZ where, unfortunately, nothing was ready. Contrary to what was agreed with the LOC by email and at the October planning meeting, no gliders were on site, or tugs or a location to install our headquarters into. We worked for three days before everything came together with the help of the manager of the DZ, a friendly and very efficient Japanese national.

On 3 December, the first day of training, we planned for each pilot to make two flights to allow them to familiarize themselves with the gliders, their instruments, method of departure and the formula of the competition.

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ABOVE: On the runway built over the sea at the Palm Drop Zone.

BELOW: Landing after flying the skyscrapers.

Unfortunately our tugs, which were also working at the Palm DZ towing the aerobatic gliders in the WAG, arrived an hour and a half late, which did not allow us more than one flight per pilot. These test flights, however, allowed us to draw some very positive conclusions.

Contrary to my fears, departures posed no problem. Pierre worked to align the gliders before release and the pilots flew the course perfectly from the same altitude. The test provided us with a turn point 3.5km north, a turn point 4km to the south and then a return to the north control point prior to turning for the finish line. The pilots achieved an average speed of 160-180kph, leaving them enough speed to allow them to safely cross the finish line. Although visibility was a little foggy you could pretty much follow the circuits from the ground and see who was in the lead according to their position east or west of the runway. The pilots took this seriously, although the flights were very short.

The tracking worked properly but we had a serious problem with the scoring. Indeed Alexander and Mira realized that, in fact, the data sent by the FLARM was unusable to score the competition because it corresponds to positions ahead of the actual position of the glider given by the IGC files. In other words, the signal emitted by the FLARM indicates that the glider has already penetrated into the observation zone, even though it had not. The error was between 200 and 300 metres. We decided to use the IGC files from the FLARM to score, so we downloaded the files after every flight to slow down the pace of launching somewhat. We also configured two wirings for visualizing data from FLARM on the Oudie. The evening of 3 December, a grand opening ceremony was held in a giant stadium erected for the occasion at the Palm DZ.

QUALIFICATION FLIGHTS

On 4 December, we began the qualification flights, although we could not hold a training flight for each pilot the day before. Indeed, the weather forecaster announced that the wind would increase and likely blow sand by the end of the week. If accurate, this would be likely to prevent us from flying on 7 and 8 December. The qualifications were held as a 'round robin' over a three-day period during which each pilot competed against all the others. In a moment of weakness, I accepted a request from the pilots to remove the 30 metre minimum altitude limit at the finish line, but I warned them that I would restore it if I saw any dangerous situations.

Before the first race we held a lottery to select the gliders that each pilot would use and the side of the track assigned to each of them. Unfortunately, we could perform only four races because the tugs had arrived more than an hour and a half late. Werner Amann beat Giorgio Galetto, Sebastian Kawa took off Tilo Holighaus, Roman Mracek won against Rene Vidal and Tilo Holighaus emerged victorious from his duel with Giorgio Galetto. Apparently there is no advantage to flying one glider over another and the side of the track did not seem to matter.

On 5 December we could start procedures as soon as the tugs were available at the end of the morning. By accelerating the launch procedures, the reading of flight files and changing of the weights in the gliders, we scheduled seven competition flights in the afternoon. Werner Amann and Sebastian Kawa won all of their races, while Giorgio Galetto still had no win on his ledger.

The next day, the last qualifying day, the wind began to blow harder and would favour the pilot that turned into the wind compared to the one that must turn downwind. After a first flight during which René Vidal was victorious in his duel with Giorgio Galetto, tension mounted as the first two in the intermediate classification, Werner Amann and Sebastian Kawa, clashed. Both pilots were neck and neck, but seemed very low on the penultimate leg. Kawa actually beat Amann by a breath but the two gliders crossed the line at a very low height and with so little residual energy that they made the spectators shudder by performing a final turn through the streetlights lining the road. I felt obliged to give zero to both pilots for dangerous flying. The following competitors allowed more margin for safety and Galetto beat Mracek. On the last qualifying flight, Amann was leading but was low enough to again choose a direct landing but was overtaken by Vidal passing above his flight with a little more energy. As I found it unjust that Amann lost for choosing to land directly [instead of flying through the finish line at high speed. Ed.] for safety, I cancelled the result and let them do a re-flight.

This time the race was won by Amann, as Vidal missed a turn point. Overall, Kawa and Amann were tied for first place with 4 points and had to do a flight to break the tie, since both had zero during their initial flight against each other. In the tie-breaking match, Werner Amann won and secured the top seed, entering the semi-finals. Vidal and Holighaus were tied with 2 points for third place. Vidal, by virtue of his head to head win over Tilo, secured the 3rd seed. Similarly Galetto was ranked ahead Mracek. We returned to Dubai somewhat reassured because we now had enough for a definitive result for the event, should we no longer be able to fly before the end of the races.

SLOPE SOARING THE CITY

On 7 December, the morning weather was as expected and we woke up to the wind whistling on the balconies of our skyscrapers and low clouds coming from the sea, moving quickly. We cancelled the day and stayed in Dubai. I helped Tilo Holigaus and Klaus Ohlmann negotiate a flight slot for the Arcus M, which posed no problem, as many events had to be cancelled given the wind. The idea was to see if it was possible for Klaus, with the wind coming from the sea, to go slope soaring along the line of tall skyscrapers called the 'Skyline'.

A television crew filmed the event from a helicopter. Klaus and Tilo went to the Desert DZ, got into the Arcus M and got a tow from the Maule through the complicated airspace to the Palm DZ. With the strong wind, the Arcus M began to slope soar the skyscrapers. Ohlmann and

ABOVE: The Arcus M slope soared the skyscrapers of Dubai with the breeze coming from the Persian Gulf.

BELOW: 'TIFFs' were flown with local royalty and VIPs.

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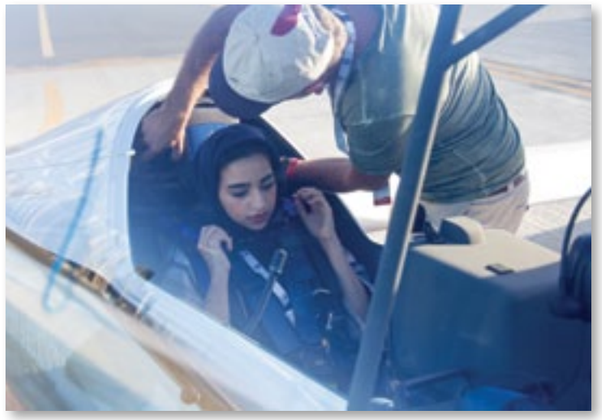


Holighaus reported climb rates of over a metre/sec and climb to over a 1,000m. The spectators were fascinated by the surreal vision of a glider soaring with grace in such an environment. After an hour the Arcus M returned to the Desert DZ. The videos and photographs captured from the helicopter will feature prominently on the WAG website

The next morning we decided to go to the Desert DZ as the wind was slightly less strong but we were quickly forced to change our minds as the conditions were not suitable. Instead, Klaus took a ruling family member of the neighbouring Emirate of Abu Dhabi, who is an aviation enthusiast, for a flight in the Arcus, including a thermal partially over the sea. Other flights with VIPs followed. Meanwhile, the pilots went with a Discus in a trailer into the desert to shoot a group photo with camels in the background.

On 9 December the good weather returned and we left very early to Margham, hoping to fly both the semi-finals and finals. The conditions were ideal with almost no wind. I restored the altitude limit to avoid excessively dangerous passes and we began with the first semi-final that pitted the first seed Werner Amann vs the fourth seed Tilo Holighaus. Werner won both matches in the best two of three. In the second semifinal Sebastian Kawa beat René Vidal, also in two matches. In the match for the bronze medal between Tilo Holigaus and René Vidal, Tilo took third place.

RACE FOR GOLD

Finally we arrived at the high piont of the competition, the race for the gold medal. Sebastian Kawa beat Werner Amann significantly in the first race. The second was tighter and it looked for a moment as if the Austrian had taken his revenge because Sebastian was penalized for crossing the line below 30 metres. However, the review of Werner's file showed that he had missed the last turning point by turning too soon. This left Sebastian Kawa in first place, adding one more title to his collection.

I planned to tow the two finalists at the Palm DZ to simulate an arrival in front of many spectators, but I did not get the permission of the Flight Director. The seaside runway was temporarily closed following an accident in which a gyroplane was damaged at sea and the pilot was critically injured. We returned by car as quickly as possible because the ceremony for the medals and diplomas was scheduled for the same evening.

The next day, we put the gliders in trailers and prepared them for the return voyage to St Auban. I also had the chance to have a flight in the Arcus above the skyscrapers along with Tilo Holighaus - an unforgettable memory. That evening with Pierre, we took the return flight to Paris.Thus ended our adventure.

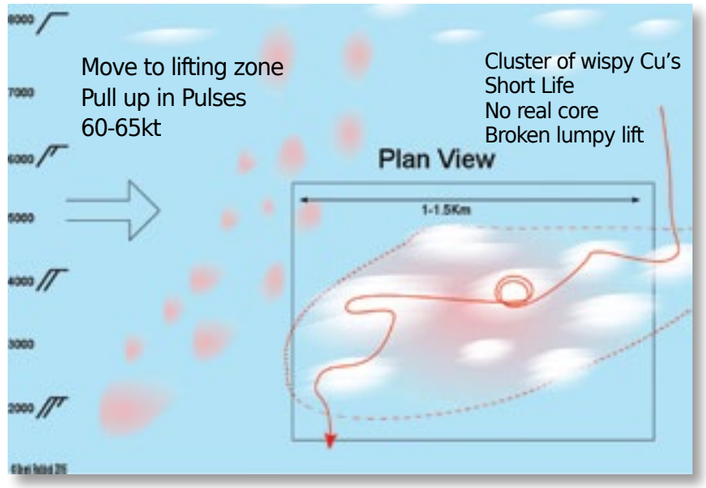
In summation, the formula of 'glider match racing' allowed gliding to be present at the great festival of air sports in Dubai with a true competition. The competition itself was interesting and the pilots took to the format. The Arcus M videos flying over the Dubai skyscrapers have created a buzz on the internet. It was a positive experience, which did not prevent some criticism in some media. But as they say in the desert, the dogs bark and the caravan moves on.

You can see more at crosscountry.aero
Watch video at tv.glidingaustralia.org GA

LADDERS OF LIFT

RICHARD FRAWLEY
NATIONAL COACHING DIRECTOR

When wind decreases
with height
5kts at 8,000ft
15-20kts at 2,000ft



Hot Surfaces
Cool Airmass
Tending to dry out

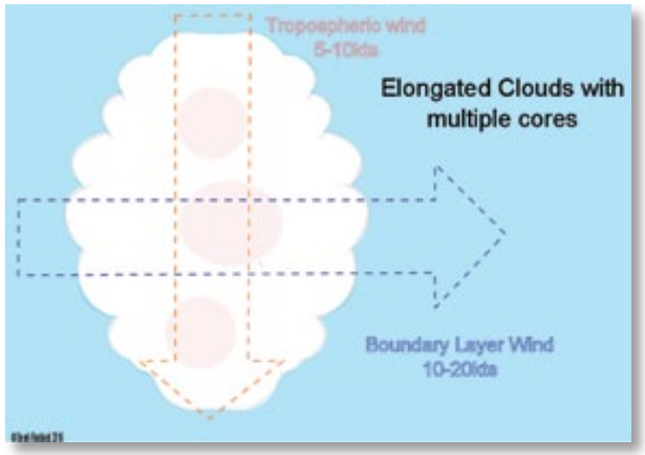
Enter downwind of the Cu's. Follow the energy lines into wind. Move about and follow the strongest line. Circle in a bubble until you lose it. Exit any circling into wind. It's like climbing steps.

FUN WITH INSTANTANEOUS WIND

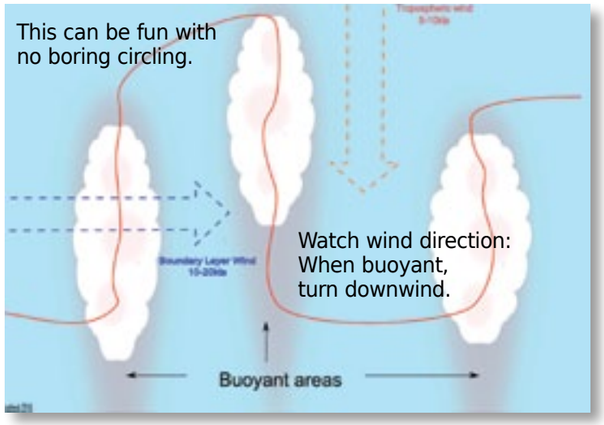
Tropospheric Wind at 90° or so can elongate the cloud forms. This tends to create quite large areas of buoyant air. The strongest lift lines, however, can be fairly narrow and need to be hunted out with careful, sensitive flying.

On many days this pattern creates many laneways of elongated clouds.

A navigation instrument with IW makes this an easier task, as it points to where the lift is strongest.



FUN WITH INSTANTANEOUS WIND (NO CIRCLING)



BORDERTOWN VINTAGE RALLY 9-16 JANUARY 2016

BY ROB BENTON

LEFT: Bordertown 2016 crowd. Photo Detlev Reuff.

BELOW LEFT: Peter Raphael wrapped in his Cherokee. Photo Dave Goldsmith.

BELOW: Ka6E, Cherokee and Boomerang. Photo Dave Goldsmith.

BOTTOM: David Howse and his restored Super Cub. Photo Rob Benton.

Another successful gathering, thanks to the Bordertown Keith Gliding Club and particularly JR, John Marshall VGA president, and his clubmates, who ran winches and also did a splendid job with catering. Thank you all. Flying was logged on five days, and mostly local. It was a bit difficult to get away. A wonderful exception was Jenne Goldsmith flying her Ka6E back to Bacchus Marsh on Sunday 17 January, which was the return home day. This was about a 400km trip. Pretty special, indeed, and more about that later.

Vintage gliders in attendance were John Ingram with K7 GNU, Dave and Jenne Goldsmith with their Ka6E GEA, Bob Hickman with his Boomerang GQY, Mike Renahan (Rena) with Boomerang GTL, Peter Raphael with Cherokee GPR, JR with Olympia GFW, Rob Benton with K6CR GFF, and Kim Van Wessem with his Cherokee GLU, which was not flown.

On Day 1, Saturday 9 January, Rob and Rena got away from winch launches, each for 2 to 3 hours of local probing, both scoring about 80km on OLC. Rob first had a launch with a newly made cabriolet (open) cockpit, and found it ... different - flying with goggles, maybe. Anyway, the cockpit was swapped back to the normal one for subsequent flights.

Day 2, Sunday 10 January, brought limited vintage flying due to the wind. Dave Goldsmith climbed away downwind and we expected a retrieve call, but he kept climbing and successfully pushed back, scoring 54km OLC in a couple of hours. John Ingram took a launch in the K7, and for the second year running had to land in an adjacent paddock. JR showed country skills, knowing which bit of fence could be successfully flattened without wrecking it to get the trailer to the glider. Monday 11 January was too windy for us, and most wooden gliders were safely re-stowed in their trailers. Dave just corralled his K6E in a circle of vehicles.

Day 3 for flying was Tues 12 January. The Met briefing was much more promising, and David Howse had arrived with his gorgeous Super Cub. When David announced that he only had enough fuel for two launches before flying to Naracoorte to refuel, the first two hands to go up were from Bob Hickman and Rob Benton. This was a good decision, because it gave them a head start before the winch launchers were going cross country. They both started by going west, but not in sight of each other. Bob finished with 291km, as scored by OLC. This compared to Rob's 262km and gave Bob the award for handicapped best distance flown at the Rally. Jenne Goldsmith, despite a late start, scored 139km and climbed to 8,400ft. To show that the thermals were working well locally, David Howse thermalled his Super Cub for 20 minutes at idle. Most impressive. At the prize-giving, this was recognised as the best flight by a 2-seater.

The next two days were blown out - really blown out, with a gust of 38kt recorded.

Friday 15 January was another soarable day, but didn't invite going away from the airfield vicinity till quite late. Four of us flew about 100km for respectable flights. They were Bob, Rob, Rena and Jenne.

Saturday 16 January was spent flying, then packing up before the farewell dinner and guest speaker. Pretty much everyone had a flight, and 6,000ft was achievable. Ged Terry had TL up and away, as did Peter Raphael in the Cherokee. John Ingram flew his K7 with Jeff Watson and Rob Benton. During this event, Keith Willis recorded his 500th 5-hour flight. Quite amazing. We had a great crowd for the farewell dinner, and our guest speaker Marion McCall had a very interesting talk. Her husband is the Anglican Bishop for an enormous area in South Australia. She was very entertaining, as she told us about being persuaded to speed up his travels around the

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TOP: JR presents the Concours d'Elegance award to Peter Raphael for the restoration of his Cherokee II. Photo Kim Van Wessem.

BELOW: Andy and Rob Benton's open cockpit Ka6. Photo Rob Benton.

congregation by getting a pilot's licence herself, and the funny, interesting and rewarding things that happened along the way. She even won an international challenge. She had our attention completely. Thank you for organising that, Garry Crowley.

On Sunday 17 January, after packing and hooking up for the long drive home, I was aware that Jenne was still rigged. I had heard a rumour that she hoped to fly back to Bacchus Marsh, a flight of about 400km. She was able to take advantage of the Met information provided by Peter Bannister. Peter is a retired Meteorologist, and generously gave us a met briefing each morning after he had analysed the information collected by following a met balloon with a theodolite arrangement. On the 17th, the expected lift, and upper winds were encouraging. She was going to need her oxygen. David Howse delayed his Super Cub departure, to give the required aerotow. That Cub is a Super-duper Cub, in a gorgeous American military paint scheme. Peter Raphael joined the ground convoy. They DID it, and this sets a mark for next year's award for the best distance flown between rallies straight away! Maybe they will not have to shift the trophy, as Dave currently holds it. So, that is the Vintage Rally for 2016. It was decided that next year would be at Bordertown, again, from 8 to 15 January 2017.

MOUNTBATTEN IN A SLINGSBY

Lord Mountbatten flew with the RAN Gliding Club. CMDR. Goodhall was his pilot. Photo courtesy RAN.

Kimberley Dunstan saw the RANGA Scholarship mentioned on the glidingaustralia.org website and there was a mention of the Slingsby T31b Tutor glider, which was brought to Australia by Tony Goodhart. Kimberley sent the photo above.

Mountbatten visited RANAS Nowra in April 1956 when he was First Sea Lord of the British Royal Navy and had a flight in the T3ib. As you can see, the glider is still airworthy and in full flying condition in Queensland.

WORLD TEAMS SELECTED

MILES GORE-BROWN
Chairman ITC

The International Teams Committee (ITC) has finalised the teams for the Lithuanian and Benalla World Championships, including the appointment of the two Team Captains. This has been a more complex task than usual due to the unfortunate withdrawal of several selected pilots from both teams for all manner of reasons. In some cases pilots were selected for both championships which would have been a considerable time and financial commitment for those pilots.

The selection process used for the initial pilot selection is as published on the GFA website. However, after several pilots withdrew some classes had vacancies. In order to fill the vacancies for the second round of selection, the ITC applied the policy of selecting pilots based on their overall pilot ranking considering their competition performance across all National Competitions with a cut off ranking score for funding of 90. This follows current funding policy. ITC also decided to include the results of the Junior World Gliding Championships as the 60% ranking component, so that Juniors who performed well could also be provided with the chance to be selected for the team vacancies.

The ITC carried out an exhaustive process for the second round of selection, providing all qualifying pilots the opportunity to express their interest in the vacant funded positions with the order of selection based on pilot ranking, irrespective of classes flown. In addition to this, ITC asked all pilots who flew in the 20m Nationals, who would have qualified for selection, of their interest to fly the 20m World Championships. No pilots indicated an interest in competing. Two pilots who did not fly the 20m Class Nationals expressed an interest in competing in the 20m World Championships. ITC selected the pilot with the highest overall pilot ranking for the Australian 20m class position.

In addition to selecting pilots, the ITC along with the Sports Committee also carried out a selection process for the Team Captains. The ITC would like to thank all those who applied for these positions. The position of Team Captain is an extremely important role and one that requires a considerable amount of time and financial commitment. This is a voluntary position with responsibilities no different to that of an Olympic Team manager.

THE SELECTED WORLD CHAMPIONSHIP TEAM MEMBERS ARE

LITHUANIA

Team Captain: Catharine Conway
20m Class: Matthew Scutter, with Dylan Lampard as co-pilot
Club Class: Tobias Geiger, Allan Barnes
Std Class: John Buchanan

BENALLA

Team Captain: Mandy Temple
Open Class: Bruce Taylor, Andrew Georgeson
18m Class: Peter Temple, Tom Claffey
15m Class: Matthew Scutter, Stephen O'Donnell

TASMAN TROPHY

The ITC is also responsible for selecting a pilot to compete for the Tasman Trophy. The Tasman Trophy is contested at the Australian and New Zealand National Championships on a two-year rotation. The previous two years have been contested in New Zealand, with the next round being contested in Australia. The host nation provides entry and arranges a glider for the pilot to fly.

This year the Tasman Trophy was contested in the North Island of New Zealand at a very challenging site – Taupo Gliding Club. If you look at the daily results of this competition you will be able to judge the difficulty that this site poses. The weather is very challenging. Steve Mc Mahon from Kingaroy Soaring Club (assisted by Neil Dunn) was the Australian pilot for this round and ITC would like to congratulate Steve on a very commendable result under the challenging circumstances.

The Nationals at Kingaroy later this year will be the next Tasman Trophy event. The ITC is ready to hear from pilots who may be interested in competing for the Tasman Trophy. Pilots who have not flown in an international competition and are intending to fly the Nationals Championships to be held at Kingaroy this year, are encouraged to apply.

SELECTION CRITERIA

The ITC has identified several shortcomings with the current selection criteria, especially when trying to fill team vacancies as a result of pilot withdrawals. It is intended to address these areas in the near future in order make the process simpler and more transparent.

A Selection Criteria group has been established to address the current process with the aim of simplifying procedures. The current prescriptive process of only selecting pilots from the class flown at the last Nationals is too limiting in many cases. This year highlighted that problem.

ITC FUNDING

The ITC has carried out a detailed study of the performance of the ITC fund and after considerable analysis and discussions within the Sports Committee a recommendation was made to the GFA Board to amend the funding processes.

As a result the ITC has had to make some funding cuts that will take effect from 1 May 2016, with the exception of Benalla. In summary the changes are a reduction of pilot funding to $4,500 and $3,375 for Team Captains. In addition to funding changes, the number of pilots funded will also be reduced, with 20m class pilots not funded and Open Class and Women Worlds reduced to one funded pilot.

The contributions to the ITC will also change slightly with the ITC Levy being raised to $65 per pilot at the Multi Class and Sport Class Nationals and GFA contributing $10 per GFA full member to the ITC fund. It has been projected that by 2018 the fund's performance will improve to the extent that these funding and pilot reductions can be revisited.

ITC REPRESENTATIVES

The ITC representatives are voted for at each pilot meeting and this year the selected representatives are as follows:

Juniors: Eric Stauss
Multi Class: Jim Crowhurst
Club Class: Luke O'Donnell
Std Class: Kris Kauffman.

If you have suggestions for ITC, please make sure to contact your representative.

The ITC would like to wish all the World Championship Team members a safe and successful competition.

GA

THE FUTURE OF GFA AIRWORTHINESS TRAINING

PETER CESCO
Vice President
VP@glidingaustralia.org

It's not that GFA airworthiness courses are not exciting and full of information, mateship, long term objectives ...it's just that sometimes … it's just too hard, or we don't know about it until the last minute. We need to change that.

I remember my first airworthiness course in the mid 1970s, where the instructor asked a question. "After all the people things were sorted, what is the first thing you would do as the club airworthiness person when you saw your club's main 2-seater crash and be seriously broken?" he asked.

The answers varied from "Draw an outline of where everything ended up" to "Make sure you get every part into the club workshop". The instructor's answer was different and has stayed with me to this day. He said, "You sit in your moaning chair and think."

His reasoning was that the hour or two's thought that you put into what you will do to fix the aircraft will save you days and even weeks in the repairs. He was right.

Really, in this fast paced, quickly changing world, airworthiness hasn't changed much since those days. The technology is different, the standards have changed (note I didn't say improved), the bureaucratic rules have been pinned down so we feel under siege ...all to allow us to work on our own and our club gliders, to keep them in the air, to keep our sport safe.

By and large we have not done a bad job. We do not have hundreds of gliders falling out of the sky because of airworthiness mismanagement, our fleets are largely well maintained, and many members spend inordinate amounts of time and effort doing quality work in our maintenance framework.

We have what I consider to be an enviable back up system in our full time maintenance organisations, our RTO/Airworthiness system, our experienced inspectors. They are all necessary because no one knows it all, and sometimes you have to get information, help or support.

But the training system to continue the ongoing support of airworthiness has been failing, due largely to the workload on the RTOs who have been loaded up in the last few years playing catch-up with club audits, as well as trying to support and manage airworthiness in their regions.

We have also largely not moved with the times. Still, we have 7 or 8-day airworthiness courses that start at 8 or 9am, go all day and then have lectures in the evening. There is plenty of information to gather, but after a while the poor student gets mind freeze and cannot absorb any more.

Western Australia has a system in which they get together for a weekend in a central location and conduct the theory for the coming Form 2 course, then they go home to study for a few weeks and do some homework, and then they spend four days on site doing the hands-on practical work that is absolutely necessary, and less classroom work. It's relatively easy for them - the majority of West Australian members live in Perth. That is not the case for most regions, however, and distance is a significant issue if we want to be the best we can in this area.

SO, WHAT HAS HAPPENED SO FAR IN THE TRAINING ARENA?

The Basic Sailplane Engineering (BSE) is out of date and needs to be updated. Each section is currently being forensically reviewed and updated to meet current standards. Concurrently, each section is having a tailored training module developed that includes both theory and practice, as well as feedback documents for both the trainee and trainer. The intent of this is to ensure quality standards are maintained using modern adult learning outcomes in the future. Currently there are 11 people working on various modules of the BSE. They may come and ask you about something they are not sure of. The updated BSE will not be perfect, but with annual reviews and a method of input from our members, it will remain the information source and training support we need it to be.

The training modules mentioned in the BSE sections also have another important feature, that is, to allow the building of airworthiness knowledge by the development of 'bite size' courses that both refresh current airworthiness personnel knowledge, and allow the further development of skills in a time-poor world. The extra advantage of this approach will allow non-airworthiness approved members to build an understanding of the skills and knowledge needed to become approved, and slowly build those abilities. Where this will go in the future, I am not sure. Perhaps smaller airworthiness activities will be authorised, such as non-motor glider electrical as a stand alone. I don't know, but things like this almost always add complexity and bureaucracy, things we don't want. We want and need our system to be simple, easy and certain to manage and support the learning we need in the future.

The access to the modules will be available on the website, and the intention is that a prerequisite for attendance at a Component replacement or Form 2 NGS airworthiness course will be the prior completion of all applicable theory modules. Eventually and logically, these will morph into web-based, interactive learning, but that is still some way in the future.

FORWARD PLANNING

Another of the issues that airworthiness has faced is the lack of forward planning, I was at a national Championships recently where some people expressed frustration at not being able to organise leave (in this case for competitions) because they had to apply to their employer up to 12 or 18 months in advance. This is a significant issue for keen and dedicated members who want to be involved in our airworthiness, operations and competitions. It is the intention to attempt to forward plan our trainings in airworthiness at least out to the next year. GFA Office is tasked with placing courses on the GFA calendar, and hopefully we will also use the GFA Forum to bring newly planned courses to members' notice. Fiona in the GFA office has lists of people who have indicated they are interested in airworthiness courses. When courses are planned, appropriate emails are sent to these members so they can apply for a position.

All training and development material available from the airworthiness system will be copyrighted to GFA, it may surprise some members but this is not always the case. This will allow and enable us to update all our material on a regular basis and not have to receive third party approvals.

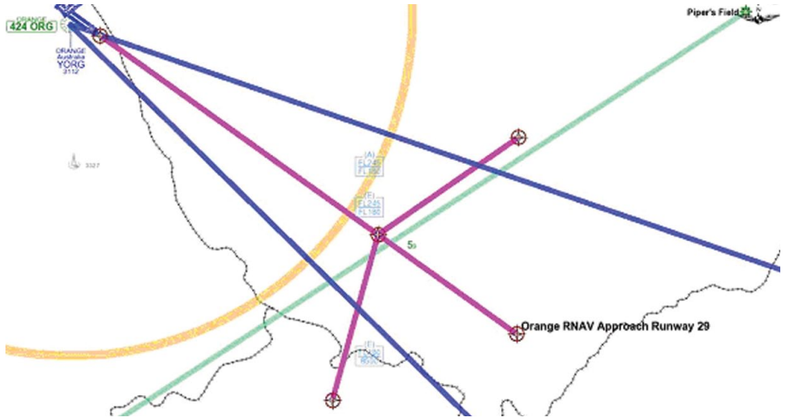
In the recent past the GFA airworthiness system has been in a bit of turmoil, and we are slowly but surely getting back to a 'business as usual' situation. The intent of these changes is to allow the airworthiness training system to have a slow, methodical build that will allow a consolidated rebuilding of a system that is in need of updating. The secondary reason is to allow for future growth of a new generation of smart, and efficient airworthiness people who can take us strongly into the future and support those people who have held the system up credibly for the past 30, 40 or 50 years.

Clearly, there are details some will disagree with, directions that won't suit everyone, and aspects that will be discussed and debated in the implementation of these goals. The important thing is that we all need to support our airworthiness people - they do a lot of work to enable you to fly.

GA

CONFLICTS WITH NON GLIDER TRAFFIC

GRAHAM BROWN
Airspace, Airfields and Avionics Officer



We fly our gliders under the Visual Flight Rules (VFR) and most Clubs have a copy of CASA's Visual Flight Rules Guide (VFRG) in the clubhouse. A good knowledge of this document will not only tell you the rules you must fly by in a glider, but will also give you insight into the rules other aircraft are operating under.

See and avoid is the basis of our separation from other aircraft and besides our eyeballs we now use radio and FLARM to assist in this. We all know about lookout and indeed cannot go solo until we have demonstrated good lookout. We talk on the radio to find out where the other gliders are and FLARM indicates the ones that sneak up on us. This is appropriate as glider to glider risk of collision is our greatest in air risk. But what do we do about other aircraft such as the regional airlines, GA aircraft, business jets, air ambulance, bank planes and the 5,000 or so RAAus aircraft also operating in Class G airspace?

Over the years the regional airlines have been very worried about the risk of a collision with gliders. This is why they pushed us to have transponders. They now know it is impractical for us to carry the existing technology and to their credit they have worked with us to develop procedures to improve safety. During this consultation it became apparent that a working knowledge of how each one operates allows insight and guidance to develop procedures to mitigate some of the risk. Knowing the routes, altitudes, aircraft profiles, waypoints, schedules and the like of RPT aircraft helps us avoid each other.

REGIONAL AIRLINES NOW:

- Check our significant Gliding Activity email. So make sure your gliding event is included in it.
- Check NOTAMS for gliding activity.
- Know that gliders thermal under cumulus clouds.
- Route away from some known gliding airfields.
- Brief their pilots accordingly.
- Sometimes call on 122.7 at the top of decent or taxing for take off if they know gliders are around.
- Provide us their routes, RNAV waypoints and schedules.

GLIDERS NOW:

- Use standard CTAF procedures within 10nm of and overflying airfields.
- Stay away from the airlines' likely paths.
- Monitor the frequency the airline will be on if they are in an area of possible conflict. This is usually the CTAF. Most radios can monitor both the gliding frequency and the CTAF simultaneously.
- Alert glider pilots of the schedules and routes of known airline flights.

To take advantage of these procedures you need to be aware of how airlines operate and have situational awareness of their calls in the air.

- **Regional airlines typically cruise at 9,000ft to 17,000ft and start their decent 30nm out. This is outside the CTAF and about 6 or 7 minutes before they land. The decend at 1,500 ft/min to an RNAV (GPS) waypoint at 10/5nm for a straight in approach. They are typically doing 200knots. So be aware if you are in a CTAF or if you are aligned with a runway or a route outside the CTAF as they may be transitioning to/from cruise. On take off they climb at 1100 ft/min at 176 knots. So if you are in this position listen out on the CTAF or better still scan the gliding frequency and the CTAF until you are clear.**

WHAT ABOUT OTHER POWERED AIRCRAFT?

This is where a working knowledge of the VFRG comes in. It helps if you know the calls VFR aircraft will make in the CTAF. Understand the inbound calls of distance, direction, height and time of arrival. Understand the circuits and heights powered aircraft fly.

You should develop your situational awareness to the point where you can decide if a conflict is possible. Understand the circuit calls and the departure calls and again, decide if a conflict is possible. On route, powered traffic will usually obey the hemisphere rule for cruising. That is, headings from 0 to 179 degrees will be odd thousands plus 500ft and headings from 180 to 359 even thousands plus 500ft. They don't change their altitude much and don't suddenly pull up into thermals.

Your greatest in-air risk is another glider, so lookout and communication with other gliders is paramount. Regional airlines have surprised a few glider pilots, usually in the transition to/from their cruise. Be aware these transitions are made just outside the CTAF and they descend and close distance very quickly.

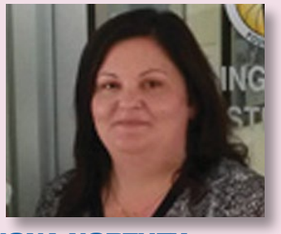
Further reference on this can be found in CASA CAAP 166-2 and our Ops Safety Bulletin 02/14.

GA

THE GFA SECRETARIAT ROLES

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.

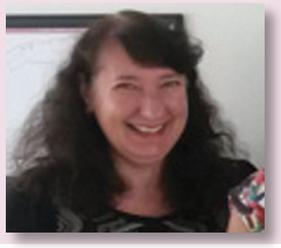


FIONA NORTHEY
fiona@glidingaustralia.org
- Organises travel and meeting arrangements for the Executive, Board employees.
- Assists the Airworthiness department.
- Assist in members' queries.

CAROL BARAN
FINANCE OFFICER
Finance@glidingaustralia.org
- Bookkeeping and re-imbursement of expenses.

Note We all multitask and know basically what each other's jobs are and should be able to pick up easily if one of us is on leave, with the exception of Glider registration. Fiona and Cathy will both be trained in Registration (scheduled by CASA for November 2015).

CATHY CASSAR
cathy@glidingaustralia.org
- Memberships and sales including the online shop and classified advertising.
- Assist in members' queries.



ACCIDENTS & INCIDENTS DEC 15 - JAN 2016

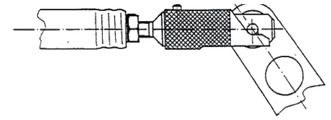
All clubs and GFA members are urged to report all accidents and incidents promptly using the using the GFA's occurrence reporting portal at glidingaustralia.org/Log-In/log-in-soar.html as and when they occur.
This is always best done while all details are fresh in everyone's mind.

1-DEC-2015 NSWGA
GROUND OPERATIONS ASW 28 & LS8-18
It was the first competition day of the Junior World Gliding Championships. After launching several gliders it became obvious to the organisers that the 'slow moving front' was in fact moving in more quickly than predicted and the day was cancelled. Mid-afternoon wind gusts up to 50 knots were experienced at the airfield. In the tiedown area, a glider that was not securely tied down was blown backwards into another glider causing minor damage to both aircraft. Gliders parked in the open should be securely tied down at the nose, wings and tail, and control surfaces secured (use chocks and/or harness) to prevent wind damage. Quality rope should be used and sturdy tiedown anchors should be driven well into the ground at a 45° angle with the head pointing away from the direction of pull. The strongest configuration is where the rope is also at a 45° angle.

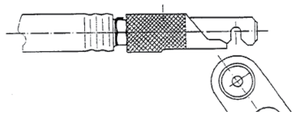
2-DEC-2015 NSWGA
GROUND HANDLING LS8-18
A strong gust of wind rotated the glider while it was being towed to the launch point and the tow-out bar detached from the tail dolly. The glider continued to rotate until the trailing edge of the port wing caught the rear of the tow-out vehicle. The port aileron was split along trailing and suffered delamination.

5-DEC-2015 QSA
DOORS/CANOPIES DUO DISCUS
While the crew were strapping in, the front seat pilot temporarily closed the canopy to check clearance overhead. When he opened the canopy again, the forward (carbon-fibre) hinge arm failed. The canopy fell outboard, but was caught by one of the ground crew assisting. No further damage resulted. The two hinge arms are intended to fail as part of the canopy jettison system and are a designed weak spot. The club proposes to replace the hinges at more regular intervals.

5-DEC-2015 VSA



A) Joint Connected and Secured



AIRFRAME PW-5 'SMYK'
During the Daily Inspection the left aileron control linkage was found to be unlocked. This aircraft uses a sliding sleeve with a locking pin to connect the control linkages of the ailerons and air brakes. The Inspector identified the locking pin may not have been properly engaged upon its return to service from an Annual Inspection the previous weekend, although he could not discount that someone subsequently unlocked it during the intervening week. Both inspectors involved in signing out the aircraft believe that they checked the connection and were satisfied it was secure. While they are both experienced in airworthiness matters and are conversant with the particular control hook up system, neither could rule out an oversight, although the inspector who undertook the dual control check recalls actually looking at the connection using a torch and cannot understand how it could have been missed. Maintenance is a major cause of system failures and this incident highlights the importance of conducting a thorough Dual Inspection before releasing the aircraft to service. It also confirms the vital role a thorough Daily Inspection plays in our risk management system. For further reading, refer to ATSB publication 'An Overview of Human Factors in Aviation Maintenance'.

6-DEC-2015 VSA
RUNWAY INCURSION
DG-500 ELAN ORION & SZD-50-3
The gliders were operating at a busy site on a day when conditions were not soarable. Visibility was diminished due to smoke haze and high level cloud. As the DG505 was on downwind, a Puchacz landed on the 'grass right' runway and another glider landed on the centre runway. The 'grass left' runway was occupied by several gliders awaiting launch. The pilot of the DG505 was monitoring the situation and noticed the Puchacz being pushed off to the side, thereby allowing sufficient room to land grass right. As the DG505 turned final, a golf cart pulled out in front of the Puchacz and commenced to tow it back to the launch point. With the runway now occupied, the pilot of the DG505 closed the airbrakes and over flew the Puchacz to land safely further down the runway. The pilot in command advised he had not seen the DG505 although the golf cart driver said he had had seen it but did not mention it to anyone and proceeded to expedite the retrieve of the Puchacz to clear the runway. This incident highlights the importance of clearing the airspace before moving a glider across a runway, and for all members of the crew to ensure there is adequate separation before crossing the approach path of an aircraft.

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6-DEC-2015 QSA
ENGINE FAILURE ASK 21 MI
The self-launching sailplane departed the runway normally and the pilot commenced a left hand turn at about 300ft to fly parallel to the cross strip. Shortly afterwards the command pilot noticed the engine surging followed by an uncommanded reduction in engine revs. The command pilot conducted a modified circuit onto the cross strip and the engine stopped during the final approach. The aircraft landed safely with the engine deployed. After the landing the command pilot identified the ECU and volt meter indicted low supply voltage. Electrical power is supplied from a Lithium Iron Phosphate (LiFePO4) battery. These batteries feature a high discharging current, are non-explosive, have a long cycle life and their voltage remains almost unchanged down to about an 80% discharged state. However, when the battery starts running out it drops rapidly. Pilots flying aircraft with these types of batteries need to be aware that a satisfactory voltage check does not guarantee there will be sufficient charge available during flight. The only safeguard is to ensure the batteries are kept fully charged.

7-DEC-2015 NSWGA
HARD LANDING LAK-19
The pilot was competing in the Junior World Gliding Championships and was on final glide following a 4.5 hour AAT flight of over 500 kms. When about 30kms out and at a height of about 3,200ft AGL the pilot took a weak thermal but failed to climb. The pilot pushed on into a 14 knot headwind on a marginal final glide. Despite getting below circuit height the pilot continued to fly towards the finish circle with the aim to land in a paddock straight ahead. At about 100ft AGL as he approached the boundary of the paddock the pilot noticed power lines and decided to land in a cotton field he had just overflown. The pilot completed a 180° turn downwind and landed heavily. The aircraft was substantially damaged. The pilot noted that "damage could have been avoided by making an earlier decision to outland without crossing the finish ring". A common reason for outlanding accidents is the pilot not accepting soon enough that an outlanding is likely, and not prioritising the available height to allow them to fly to a good safe area. Pressing on

with the flight in the hope that that all will be well is fraught with danger. Unlike landing at the home airfield where the runway layout, ground features and hazards are usually well known, when landing in a strange paddock the pilot is faced with the unknown. Such a situation demands the pilot take additional precautions to ensure a proper survey is undertaken of the landing area so as to identify all hazards and ensure a safe landing can be accomplished. In power flying this is called a 'precautionary search' and is commenced from no lower than 500ft AGL, although in gliding one must obviously start a lot higher. Guidance on conducting precautionary searches for outlanding can be found on page 78 of the book 'GFA Basic Gliding Knowledge'. When flying cross-country it is important that pilots plan and think ahead so that they are always in a position to make a safe landing. At low levels a pilot's priority will change from searching for lift to finding a suitable area in which to land. This requires good flight management and discipline because flying at low level is unsafe:

- there are more obstacles to avoid, many of which are hard to see until it is too late (e.g. power lines and birds);
- pilots have a higher workload because there are more hazards to negotiate in the environment;
- there may be turbulence and wind shear that pilots do not encounter at higher levels; and
- there is very little time to recover control of the aircraft if something goes wrong. For example, consider a low level spin.

For competition pilots, the race to the finish is a high workload and dynamic situation. In such circumstances, being near the ground at a height where it is not possible to assess and check an available landing paddock is a high risk situation that must be avoided. Human factors including decision biases, goal fixation and cognitive tunnelling in competition may lead to pilots eroding safety margins more than in normal non-competition flying. Being aware of the dangers of continuing into marginal circumstances, 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.

7-DEC-2015 NSWGA
NEAR COLLISION PIPER PA-25

Late in the day and during a competition, the tow pilot was requested to conduct the retrieve of an outlanded glider. After waiting for several 'finishing' gliders to land, the tow pilot broadcast his intentions on the CTAF and departed at low level to the west before turning south. Two sailplanes enroute to the airfield passed off to his left side well clear but a third flew head-on and passed 200ft over the top of the tow plane. The tow pilot was aware that other gliders may have been finishing from the south and noted that he should have tracked further west before turning south so as to avoid oncoming traffic.

7-DEC-2015 NSWGA
WHEELS UP LANDING DISCUS 2A

The pilot was competing in the Junior World Gliding Championships and had just completed a 540km task after being in the air for 7 hours. Just after crossing the finish line at a height of 1,000ft some 3kms from the airfield, the pilot configured the aircraft for landing by lowering the undercarriage and dumping water ballast. Nearing the runway the pilot made an orbit to provide separation with a glider on short final and then made his approach to land. Upon touchdown the undercarriage collapsed and the aircraft suffered minor damage. The pilot noted that he did not properly lock the undercarriage in the down position.

10-DEC-2015 VSA
TAXIING COLLISION / NEAR COLLISION DG-500 M

While the aircraft was being towed to the launch point, the tail dolly split apart on rough ground and the aircraft rudder hit the tow car. The tail dolly main shaft nut had come loose and the ball bearings fell out. The dolly was subsequently repaired but a new main shaft nut could not be sourced so the damaged nut was welded in place. While towing the glider to the launch point the weld holding the nut broke and the dolly came apart, resulting in the glider running into the car and suffering substantial damage to the rudder. The pilot's CFI noted that missing a couple of days flying to source a new castoring dolly wheel would have been less costly.

13-DEC-2015 NSWGA
NEAR COLLISION DG-1000S

During a training flight and while thermalling at 8,000ft near the home aerodrome the DG-1000 instructor noticed an ASH-25 approaching head-on at high speed. The instructor momentarily levelled out and widened the turn to avoid conflict and the other glider passed close by to the left. The pilot of ASH-25 had seen the thermalling glider and flew to join it. He entered the thermal at much the same height as the DG-1000 but on the opposite side of the circle. As the thermal was weak, the pilot of the ASH-25 straightened up and flew on, only to encounter a strong core nearby in which he commenced a turn. The Instructor in the DG-1000 discontinued thermalling to avoid overlapping his circle with the ASH-25. A circling glider attracts other gliders like a light attracts moths, so it is important to keep a good lookout at all times. Pilots should always join a thermal so as not to interfere with other gliders, and when at similar heights the joining glider should fly towards the outside of the circle made by the other glider. Remember, gliders already in a thermal should not have to manoeuvre to avoid you as you enter the thermal.

14-DEC-2015 NSWGA
ROPE/RINGS AIRFRAME
STRIKE GROB G 103 TWIN II

Following a weak link break on aerotow, the rope wrapped around the tailplane and the weak link shackle damaged the top surface. The glider landed safely.

17-DEC-2015 QSA
HARD LANDING KR-03A PUCHATEK

The student was conducting an outlanding under instruction but mishandled the landing and touched down heavily. The instructor took over but during recovery the wingtip caught in grass and the glider ground looped.

18 -DEC-2015 WAGA
RUNWAY EXCURSION VENTUS-2CX

On tow out to the launch point the ballasted glider's wing walker broke, causing the wing to drop. The pilot placed a wing stand under the wing to keep it level while he repaired the wing walker. Upon his return to the glider the pilot found the wing resting on the ground and that some water ballast had drained from the wing. When the pilot placed the wing back on the wing stand he did not notice any remarkable difference in wing balance, and after completing the repair the glider was towed to the launch point. The pilot completed his pre-flight checks and boarded the aircraft for launch. After connecting the tow rope to the glider, the wing runner advised the pilot that the left wing appeared to be heavier than the right but the pilot decided to continue with the launch as the tow plane was in the process of taking up the slack in the rope. Just after the 'all out' command had been given and the wing runner let go, the left wing fell to the ground and the pilot immediately released. The glider veered off the runway to the left and suffered minor damage. Pilots need to be aware that asymmetric wing loading is hazardous and usually results in loss of control. If you believe the wings are out of balance before launch, either empty and refill them, or fill them up completely and release sufficient to meet weight and balance requirements.

19 -DEC-2015 QSA
LOSS OF CONTROL PIPER PA-25-235 & SZD-50-3 'PUCHACZ'

This was a training flight where the student was to conduct a release failure exercise and then ascend into high tow and await the wave off signal from the tow pilot. Following the successful release failure exercise, the student established in the high tow position at about 1,500ft AGL. Shortly afterwards the student allowed the glider to climb too high. The instructor had allowed the student time to get back into station but the student's reactions were too slow and the tow plane ran out of elevator control and its nose pitched forward. Upon seeing this, the instructor immediately released to rope and the tow pilot recovered flying attitude. A glider pilot's aerotow training emphasises that correct position behind the tug is essential and that he must release if he is losing control. However, tug pilots must be vigilant during the early stages of the launch for any tendency of the tug to be pitched nosed down. Below 600ft, monitor the tug's attitude and if a gentle back pressure is insufficient to prevent any nose down pitch - release immediately. Above 600ft, the glider pilot may be given the opportunity to correct the situation. Be aware that tug upsets can happen rapidly with little warning. Glider pilots should release immediately if the glider is going high and the tendency cannot be controlled, or they lose sight of the tug.

19-DEC-2015 QSA
HARD LANDING ASK 21 MI

The glider bounced on landing and pitched forward onto the nose wheel incurring minor damage to nosewheel steering fork and mount. This type of aircraft has minimal clearance between the ground and nose/tail wheel, which enhances the tendency for the aircraft to oscillate if the recovery from a bounced landing is misjudged. Another contributing factor was rough ground. The pilot was briefed on the issues.

26-DEC-2015 QSA
HARD LANDING H 36 DIMONA

The experienced pilot had prepared the aircraft in the hangar and had not noticed that the weather was deteriorating. After taxying from the hangar the pilot completed his pre take-off checks, during which time light rain began to fall. The pilot decided to conduct a circuit and then put the glider away. Shortly after becoming airborne the rain and wind increased in intensity. Unable to land ahead due to insufficient available runway, the pilot climbed to a safe height and conducted a 180° turn to land back on the runway. The pilot misjudged the round-out and landed heavily. The glider bounced and touched down again while travelling sideways and the undercarriage collapsed. Causal factors include poor aeronautical decisionmaking, adverse weather conditions, stress and a high workload.

27-DEC-2015 WAGA
LOW CIRCUIT SZD-50-3 'PUCHACZ'

The low experience pilot broke off the flight at too low a height to conduct a normal circuit. Despite opportunities to land on an alternative runway, the pilot continued the circuit onto the duty runway and completed a low final turn. Fortunately the pilot maintained safe speed near the ground and landed safely. The pilot reflected on the flight and noted that, despite his training, he became fixated on landing at the take-off point. Goal fixation often manifests in times of stress which, coupled with inexperience, results in a failure to analyse information appropriately and loss of situational awareness. Remember, situational awareness must precede decision-making because the pilot has to perceive a situation in order to have an outcome. Situational awareness also allows us to stay ahead of the aircraft. To prevent the loss of situational awareness, implement proven best practices (circuit joining, radio procedures, lookout, etc) and know the Rules and Regulations.

28-DEC-2015 NSWGA
WHEELS UP LANDING LS 3-A

While outlanding the pilot became confused about the position of the undercarriage and retracted it during the landing flare. Fatigue may have been a contributing factor.

29-DEC-2015 NSWGA
RUNWAY EXCURSION LAK-19

The pilot was flying cross-country on a weak day and decided to return to the home airfield using the electric sustainer motor. The pilot subsequently flew through lift and decided to continue on task. On return from the turn point the pilot found himself getting low again, so he restarted the electric motor and headed towards some hills in search of lift. Unfortunately, the battery power was low and the motor warning lamp illuminated. The pilot turned off the motor and was immediately faced with an outlanding. While the aircraft was now over hilly terrain with limited landing options, the pilot located a paddock of suitable dimensions with some minor slope. The glider landed at speed and it is suspected that the wheel and starboard wingtip touched the surface simultaneously, resulting in the wing catching in long Lucerne and causing the glider to ground loop. The aircraft was substantially damaged - suffering a bent undercarriage and separation of the starboard wing extension. Pilots of gliders capable of self-retrieving need to fully understand the limitations of their type of motor and must make decisions at sufficient height and with safe landing options available.

30-DEC-2015 VSA
WHEELS UP LANDING DG-400

At 200ft AGL during self-launch the pilot retracted the undercarriage. At 400ft AGL the engine stopped. The pilot completed a 180° turn and landed with the motor extended and undercarriage retracted. Investigation revealed the cylinder head temperature probe had worked loose and ejected from the engine, resulting in a loss of compression and power. While the CHT probe was lock-wired in place, it was not sufficient to prevent vibration eroding the thread to the extent that it failed. Pilots should check security of the probe during the Daily Inspection. Due to the high workload when landing motor gliders, pilots should also be in the habit of having the undercarriage down while the motor is deployed during take-off or landing.

31-DEC-2015 SAGA
DEPART/APP/LAND
WRONG RUNWAY DISCUS B

Following an uneventful launch to 2,000ft AGL, the low hours pilot searched for lift but was unsuccessful. The pilot eventually entered circuit on the reciprocal of the operational runway. A safe landing ensued, albeit with an extended ground roll due to the light tailwind. The pilot noted that he became frustrated and distracted by his inability to locate lift for the second day in succession and inadvertently set himself up on circuit for the previous day's operational runway.

31-DEC-2015 VSA
WHEELS UP LANDING NIMBUS 2

The pilot did not complete a post-launch checklist and left the undercarriage down during the cross-country flight. Upon return to the airfield and on the downwind leg the pilot retracted the undercarriage as part of his pre-landing checks and proceeded to land with the undercarriage retracted. This accident highlights the importance of visually checking the undercarriage lever is in the 'down and locked' position against the placards.

2-JAN-2016 QSA
DOORS/CANOPIES STANDARD CIRRUS

The ground-crew member assisting with the aerotow launch noticed the canopy had been closed with the canopy strap hanging out. The pilot was asked to open the canopy and the strap was tucked inside the cockpit. The pilot closed the canopy but did not properly lock it. During the aerotow and at a height of about 300ft AGL the canopy started to lift. On noticing this the pilot attempted to close and lock the canopy but in so doing allowed the glider to fly out of station and the weak link broke at the tow plane. The pilot regained control, released the rope and landed safely on the reciprocal runway. This incident highlights the importance of going through the pre take-off checks again if distracted during the pre-launch routine.

2-JAN-2016 QSA
NEAR COLLISION ARCUS M

Under investigation. A model aircraft was flown across an operational runway and came within close proximity to a landing sailplane.

9-JAN-2016 QSA
NEAR COLLISION ASW 27-18 E

The pilots were competing in the Australian Multiclass National Gliding Competition. During the third leg of a four-leg task, two pilots who had been flying together for most of the flight joined a thermal. During the course of thermalling and while at similar heights one glider turned inside the other, requiring the other glider to take avoiding action. Gliders established in a thermal should not have to manoeuvre to avoid

continued over page

another glider. Pilots must match the other glider's bank angle and speed so that they fly the same size circle. It is NEVER acceptable for a glider to turn inside another at the same height.

10-JAN-2016 VSA
WHEELS UP LANDING PIK-20B

Under investigation. Pilot forgot to lower the undercarriage.

12-JAN-2016 NSWGA
COLLISION WITH TERRAIN LS 6

This accident occurred during the Multiclass Nationals. The task for this particular day was challenging and nearly two thirds of the class outlanded. The pilot elected to return to the home airfield via another regional airport. When the pilot reached the regional airport he realised that pushing on was futile and made a decision to land and get an aerotow retrieve. There were already a number of gliders that had landed at this airport and three were circling nearby. The pilot joined circuit and two other gliders joined behind. The pilot elected to land short on the grass verge to the left of the main runway. In order to provide separation from the gliders following, he manoeuvered to stop between the gable markers to his left. Unfortunately the pilot misjudged the speed at which he was travelling and a collision with the runway markers was likely. Rather than re-enter the runway and infringe the other landing gliders, the pilot elected to ground loop between the markers and airfield boundary fence. The glider completed a low speed ground loop and in the course of this manoeuvre the right wing contacted the top wire of the boundary fence. The pilot did not believe he was fatigued or dehydrated but indicated that a contributing factor was his desire to land short in the hope of getting an aerotow retrieve before sunset.

12-JAN-2016 VSA
CONTROL ISSUES ASW 19

During a winch launch and at a height of about 150ft AGL the cable broke. The pilot immediately lowered the nose to maintain safe airspeed and pulled the cable release to ensure the cable and parachute were clear of the glider. After establishing safe airspeed the pilot opened the airbrakes to land straight ahead. The pilot found he could not get full travel on the airbrake lever and a visual inspection of each wing confirmed the airbrakes were only half extended. A safe landing was made on the available runway. Post flight the pilot found that the tiedown kit had slipped from its stowed position and lodged under the lower control rods of the airbrakes, thereby obstructing their full travel. The tiedown kit was stored in a drawstring bag on a shelf behind the pilot's seat and wedged in a hole in the bulkhead designed to carry an oxygen bottle. A secure container will be fitted to contain the tiedown kit and prevent it from moving.

14-JAN-2016 NSWGA
GROUND HANDLING JS1 B

The pilot attempted to tow the glider from tiedown before removing tiedown sling from right wing. The wing suffered substantial damage. The pilot had been competing in the Multiclass Nationals and noted that the effects of cumulative fatigue over the preceeding days may have led to this mistake.

17-JAN-2016 NSWGA
WHEELS UP LANDING MOSQUITO

Following a 9-hour cross country flight, the experienced pilot raised the undercarriage during the downwind leg and landed with the wheel retracted. The pilot was on a 'skinny' final glide and was looking to do a straight-in approach and landing. When close to the airfield the pilot lowered the undercarriage. When the glider arrived at the airstrip the pilot had sufficient height to conduct a normal circuit. When on downwind the pilot completed the pre-landing checks and retracted the undercarriage. During the landing flare the pilot received a radio call advising the undercarriage wasn't lowered. The pilot's attention was drawn to the undercarriage lever and this distraction resulted in the glider landing heavily and damaged the undercarriage doors. The pilot believes fatigue and the stress of a marginal final glide may have contributed to this accident. This accident highlights the importance of checking the undercarriage lever to the placards. It also serves as a reminder to external observers not to distract the pilot during the critical stage of a landing.

18-JAN-2016 VSA
ROPE BREAK/WEAK LINK
FAILURE TWIN ASTIR

At commencement of launch at the end of the take-up slack process the glider was jerked forward and over ran the rope. The tow plane attempted to proceed with the launch, however the rope was under the main wheel of the glider and the resultant jerk resulted in the rope separating from the tow plane. This sort of incident can be minimised by the tow pilot taxying slowly and the glider pilot applying the wheel brake while the slack is being taken up.

23-JAN-2016 QSA
COLLISION WITH TERRAIN DISCUS B

While landing in gusty crosswind conditions, the pilot was unable to prevent the right wing from contacting the ground and the wing subsequently collided with a runway light. The glider suffered leading edge damage requiring repair.

31-JAN-2016 QSA
AIRCRAFT SEPARATION
PW-6U & PIPER PA-18-150

Under investigation. Glider was launched by aerotow while the runway was occupied by a backtracking aircraft.

31-JAN-2016 SAGA
AIRCRAFT CONTROL ASK 21

Injury, nil damage, nil phase landing PIC, age 75. The student pilot had recently come to gliding with previous power flying experience. This was the third day on which he had flown gliders under instruction and it was the first time he had flown with this particular instructor. The student recalled telling his instructor beforehand that he had attempted various phases of approach and landing before but on each occasion the instructor had taken over. On the second flight of the day the instructor agreed the student would attempt the landing. Just after rounding out, the student advised the instructor to take over but let go of the controls before the instructor had time to react and the aircraft touched down 'with a bump'. Fortunately the experienced instructor was quick to regain control and landed the aircraft without further incident. It was subsequently determined that the student had exaggerated the number of actual landings he had attempted, and from his own report it seems he included his home flight simulator experience. It is very important to be clear who is flying the glider at any time. Whether you are a student pilot, instructor or flying mutual, when you hand over control say clearly "You have control" and only take your hands and feet off the controls when you have heard the other pilot respond with "I have control". Similarly, when you take back control, say clearly "I have control" and start flying only when you have heard the other pilot say "You have control". The actual phrase is not too important as long as its intention is clear and it is used consistently and religiously. It is also a good habit for instructors to review the student's logbook to confirm experience. Similarly, instructors should write something useful in their trainees' logbooks that will provide guidance for subsequent instructors on the trainees' next steps.

The Gliding Federation of Australia Inc
SOAR Accident and Incident Occurrences
General Statistics

Date From: 01/12/2015
Date to: 31/01/2016

Damage	VSA	NSWGA	QSA	WAGA	SAGA	Total
Nil	5	2	5	1	2	15
Minor	4	7	3	1		15
Substantial	1	4	1			6
Total	**10**	**13**	**9**	**2**	**2**	**36**

Injury	VSA	NSWGA	QSA	WAGA	SAGA	Total
Nil	10	13	9	2	2	36
Total	**10**	**13**	**9**	**2**	**2**	**36**

Phases	VSA	NSWGA	QSA	WAGA	SAGA	Total
Ground Ops	2	3	1			6
Landing	4	4	4	1	2	15
Launch	4	1	3	1		9
Outlanding		3				3
In-Flight		1	1			2
Thermalling		1				1
Total	**10**	**13**	**9**	**2**	**2**	**36**

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