

Canterbury Gliding Club

March 2017

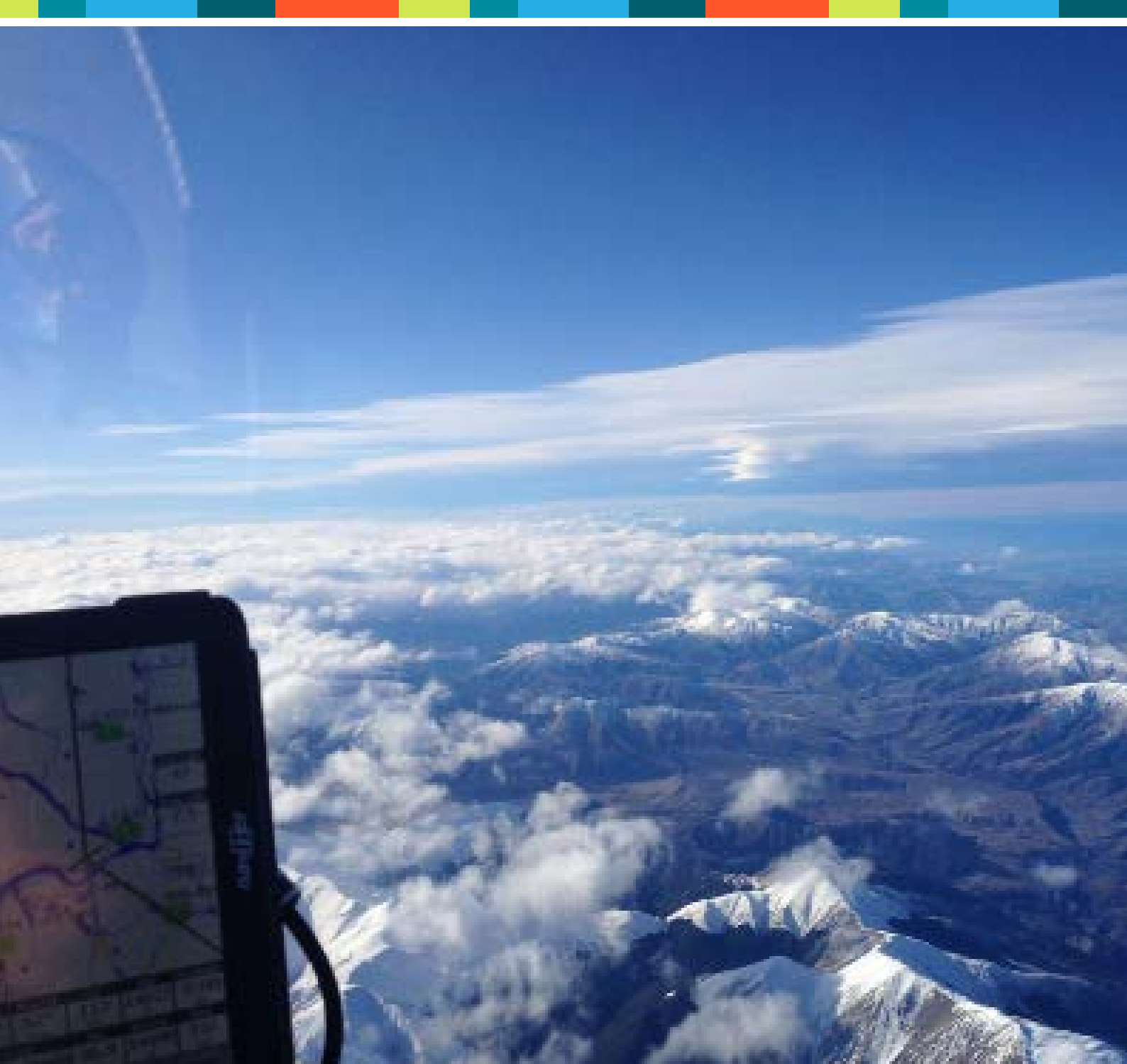
UPDATES FROM THE EXECUTIVE COMMITTEE

TERRY'S WORLD RECORD



FLYING UP AT NELSON LAKES

9500' FLIGHT OFF THE WINCH



President

Terry Delore

Secretary

Kevin Bethwaite

Treasurer

Dave Tillman

Chief Flying Instructor

Warwick Bethawaite

Chief Tow Pilot

John Goddard

Glider Engineer

Mike Mara

SF Ground Engineer

Grant Shaw

Club Captain

John McCaw

Promotion

Neil Walker

Postal Address

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From the President

On field Operations Centre, or Kraak Kontrol centre

Derek has kindly donated a portable building and arranged free transportation courtesy of Smiths transport, the plan is to construct on this building a sun shelter and seating deck and to install facilities to make a cup of tea or coffee, this will be the new Springfield base operations room.

It will be a more professional look than the current time expired caravan and be more welcoming to visitors. The proposal is to position it off the end of the hangar and connect power to run the computers etc. This will tie in the parking for visitors, aircraft movements closer to the operations room and prove more social and welcoming.

This building transported and positioned on site is going to be a great asset to the daily operation a big thank you to Derek from all the members.

Farewell to Paul Marriott

Farewell for now and a big vote of thanks to **Paul Marriott** for a great going away BBQ Party. It was a shame we have had one of the worst soaring seasons in many years and Paul was not used to his potential but for the many times he was doing his towing or instructing he did a great job so Paul take a bow and for your info you did not take the weather with you it has deteriorated further since your departure we all wish you well for the UK summer and look forward to your return.

World Junior Soaring Championships in Lithuania this August

Our young **Guns Nic Oakley** and **Alex McCaw** will hopefully be attending the World Junior Soaring Championships in Lithuania this August and Mother Bear **Lynette** and Father Bear **David Tillman** hope to be there for a week or so to keep an eye on the our Young Guns along with **John and Jill McCaw** and possibly one or tow other members. Talking to Nic it sounds like **Ross Drake** (son of Bruce, a past member) is loaning them gear and helping out which is really good of Ross.

Suggested general meeting to discuss the future and possible upgrading of the fleet

The committee will access the amount of flying both Papa Bravo our twin trainer and Golf Kilo the Libelle

and decide if moth-balling either or both is best access options available for the demand we have and look at what the members want?

To this end it would be good to have a general meeting to discuss the future and possible upgrading of the fleet and what resources and support are required for resident tow pilot(s) and instructor(s) and discuss what members want in regards to away camps and time away our gear has at Omarama. I am getting many comments and opinions that need to be shared and discussed further regarding time spent away from Springfield.

Terry



Treasurer's Report

Things are ticking along nicely, the biggest challenge as always is utilisation. Weather at times doesn't help, but even on nice days we still have underutilised assets.

There's no simple solution to this but if you're pondering "should I go flying" the correct answer is 'Yes'.

It's great to see DYT is so popular at home and at Omarama. Financially the plane is performing well and fingers crossed it continues to do so.

On another note we are in the process of drawing down a \$100,000 loan from the Umbrella Fund (GNZ) to repay the Clover Hill Loan. The paperwork has been a bit of a mission and we owe a big thank you to Kevin Bethwaite for all the work he's put into it, plus the four members who have gone guarantor (Kevin Bethwaite, Jerry O'Neill, John McCallister and Nigel Maxey) – thank you.

Something we're actively trying to eliminate is cash at Springfield as it does create a lot of work and in this day of electronic banking it shouldn't be necessary apart from when the odd Trial Flight rocks up. So long as it's not disadvantaging club members then we are only too happy to have the utilisation and potential new member a trial flight brings.

When taking the cash just make sure that the paper trail is clear for those behind the scenes i.e.

Record the receipt number against the flight in Glidetime, and

Put the yellow copy of the receipt with the money in the secure box in the hangar

Pretty straightforward and makes balancing the books a lot easier.

Seems a bit early to mention the AGM, but it will be here before you know it. I've done six years now as Treasurer (and fill in Treasurer) and won't be standing for the position at the AGM. Rather than have the job thrust on someone I'm more than happy to show anyone who's interested how it works and what's involved. You'll find that after the AGM I'll be available for as much help and guidance as required – think about it and feel free to give me a call.

That's my lot for now.

David Tillman



Glider Engineer's Report

The Exec has appointed me as a Club Glider Engineer

I am able to do any maintenance items that fall within the Class 2 GNZ Approval. Kerry Jackson, the Club's Maintenance Controller is still required to do the maintenance items outside the Class 2 e.g. - annual inspections and fiberglass repairs etc. So Kerry and I work together to best use the club's resources and personnel.

The Exec also want me to ensure we have a surveillance programme running for the maintenance of parachutes, batteries etc.

In order to make things run smoothly I intend using Wal's white board in the hangar to display :

- how any maintenance items found in a DI should be handled (still a work in progress)
- the current state of gliders' serviceability and the next scheduled maintenance
- maintenance tips
- what maintenance items a pilot is allowed to do under MOAP Appendix 3 C

I also intend to set up a mini tool cupboard to contain expendables like white tape, WD40, tyre inflation extensions, plus a small tool box etc. (does anyone have a cupboard they would care to donate?).

Ideally, a 'team' of club members could form a Maintenance Group. A 'team' of one is a bit lonely! So, contact me if you want to be part of the Maintenance team.

MAINTENANCE TIP

Tyre inflation - OR is having a new tyre fitted due to radial cracks appearing in the wall? The manufacturer says these radial cracks are OK provided they don't go through to the ply. The cracks don't enter the ply but discretion says change the tyre - cost approx \$400.

Cracks like these are due to under inflation, same as you'd get in your car if you drove it with a tyre under inflated. But worse - the force of landing on the under inflated tyre, causes the tube to rotate inside.

The next person to DI the glider finds they can't inflate it because the valve stem is at an angle. So they leave it. Or worse, mangle the thread and stem in an effort to extract the stem.

If you can't visually establish that a tyre appears correctly inflated then use a pressure gauge. Tyre pressure ranges are in the flight manual.

IDEA - write the pressure required adjacent to the wheel in marker pen.

Cheers **Mike**



From the Chief Flying Instructor

This may not spin everyone's wheels but the big news from me is the progress being made by Martyn Cook and others with their revamp of the Training syllabus. If you haven't heard about it go to the Wellington Club site and have a look.

The new system uses a lot of the existing training notes and supplements with other information from a variety of sources including the Australian and British syllabus. It is presented in such a way as to be easier for both trainee pilots and instructors to see where they are at and what the next goal is. It is easy to follow and very much puts the emphasis on self learning. Preparation by the trainee is at the core of the system which certainly gets my tick of approval. The GNZ operations team are meeting soon to hopefully give this new approach their tick of approval.

Another hot topic is what do we do next season after now having had the experience of a live in instructor (Paul Marriott) for this season. Obviously there are always going to be limitations if you have only one person on site. How many extras, how it is structured, for how long etc etc are all important questions. Please put your thoughts to me or anyone on the executive committee. At this stage Paul has said he is keen to return but for a slightly shorter term. No decisions have been made yet.

You may have noticed a large white board has been put up in the hangar. This is being sectioned up into blocks of info needed by all pilots. Headings are Maintenance/Parachutes/Spots and ELBs/Varios and Transponders/Local area map/Emergency procedure/BFR's and Currency/Batteries/Hangar protocol and positioning/maybe more....

The information under each section is not supposed to be complete, but should be enough for any new member to see the process and be sent in the right direction for any more detailed information they need. Club members who have responsibilities in any of these areas will have their contact details listed.

Please please smile nicely when I ask you to look at my camera or if you are shy just send me a selfie (clothes on thanks!!). I am putting together a pilot list that mainly concentrates on early stage trainees and records where they are at etc. A photo needs attached because at instructors meetings it is nice to know who we are discussing. It's not unusual for

a new member to be in the club for months before being introduced to all instructors. I will be keeping general information on this file like previous experience/ratings, held/relevant training notes etc. It will be in a format that can be accessed by the club member if they desire. The reasoning behind this idea is purely to facilitate communication between instructors to hopefully be in a position to give better instruction.

Moving on we have just started training five new instructors - **David Palmer, Karl Ridgen, Abbey Delore, Peter Taylor** and **Edwin Oude Vrielink** have all fronted up. There is a lot of enthusiasm in this group so let's all get behind them and help make it a positive experience.

I'm very pleased to see **Jono, Karl and Abbey** looking to get a Youth Glide Canterbury group going. Again let's get this initiative moving with loads of enthusiasm and help from all.

I think I speak for a lot of the existing members when I say that the Youth Glide experience from a club perspective has been less than satisfying. I'm very much hoping that we can get a group of young people together that take an active role in club activities on a regular basis and don't only do the camp at Christmas. It feels very much like a huge chasm between a teenager looking for a flying experience and a mature adult with hundreds of hours in the sport. Each group within our sport has its own expectations and they can be hard to satisfy. Trying to accommodate different needs shouldn't be rocket science if communication is open and honest.

Harking back to the potential new syllabus there is a requirement in the first module for the student to be on a club roster and turn up as one of the required ticks before solo. (I bet this gets some robust discussion)

Come prepared, fly with discipline, have fun

Wal

From the Secretary

I'm often asked why person A or B doesn't seem to be on our CGC members list. Usually they are meaning someone's name doesn't appear as a CGC member on the GNZ data base.

The answer is commonly that some members of CGC have their "home club" elsewhere and have "associate" membership of CGC.

I encourage all those who can, to be a full flying member of CGC if they in fact do the majority of their flying using CGC facilities including towing at OA.

Looking at the GNZ list right now CGC has 65 Flying

members, 3 Juniors and 11 Social (who get the Soaring Magazine).

Also you may be interested to know that in 2016 we had 13 members join/re-join the club and 16 resignations. When I look at the names who resigned vs those who have joined/re-joined we had quite a few resign who were simply not flying at all and those who have joined/re-joined have for the most part all done quite a bit of flying so the activity per member is better.

Regards

Kev

Youth Gliding Report

So far this year we have had five enquiries, and we are working towards more.

Ben Carlisle is our newest member and had a great flight with John McCaw in February. On the same day Rene, a young glider pilot from Germany, came out and had a great flight.

We have also contacted Darfield High School to see if they are keen to start Gliding as an option for

their weekly sport. If this happens it will likely be towards the end of the year.

If you see any youth out at the airfield say hi and show them things they can do to help out

Thanks

Karl

Club Captan's Report

We have farwelled Paul Marriett last week back to the UK. Paul held a very successful dinner on the 25th of February with at least 30 club members and families attending.

There has been a successful working bee at the start of March, with seven members making really useful progress on the club rooms. Another one is scheduled for the weekend of 18/19 March.

We have had some reasonable flying with quite a few overseas visitors, and trial flights.

We are hoping to plan a Club Dinner in April for everyone to catch up.

Decisions need to be made regarding the Easter camp.

To all club members are encouraged to fill in the online survey by GNZ.

The Club will hopefully welcome the Annual Aorangi Scouts Aviation Camp on the 7th to the 9th of April at Springfield.

John

YSDC 2016

Good morning

First of all, thanks to the Canterbury Gliding Club for supporting this year's Youth Soaring Development Camp.

The weather was certainly more challenging than any previous camp but it was another successful camp as the following stats show.

We had 30 students attending; including one from Canada, one from Germany, two from France and three from NZ clubs flying "alongside" as honorary youths!

- 352 flights were flown during the 10 day camp
- 285 hrs gliding were flown
- 84 hrs being flown solo
- 5 First Solos and several re-solos after last year
- 6 A Cert's completed
- 1 B Certificate
- 2 FAI Silver Duration
- 1 FAI Silver Height Gain
- 1 FAI Gold Height Gain
- Numerous type ratings

Kim and her team raised \$2000 to go towards the camp flying by providing extra catering for the two fund raising dining events held in the terminal as well as catering for the 50 attendees for the 10 days.

OR and GK did plenty of flying, as did DYT. It was great to have **Paul Marriott** there and he was very helpful providing both instruction and towing. Tow pilots **Chris Garton** and **Pete Chadwick** did a huge amount of launches...a great effort.

Graham Erikson was an absolute Trojan with his instructional work and ROO oversight and **Jenny Wilkinson** and **John McCallister** made an excellent contribution to the instructional workload on the days they were able to be there.

Mike Marra provided fantastic engineering support and amongst many other engineering related things and helping with managing the grid, fixed the wheel

brake on OR, minimising its time out of the air.

Connor James was one of the attendees who did their first solos and completed his A Certificate.

Jake Bevan had a very good camp and was awarded the Glide Omarama two-day Mountain Soaring Course prize to help him progress his x/c soaring.

John Hudson flew "alongside" and had a good camp with a good intro to wave flying so is well placed to do more. Unfortunately, a logger failure denied him several badge achievements.

OR and GK have been left clean and securely picketed and all extraneous club gear has been secured in the club caravan.

Many thanks to our overworked time keeper, **Peter Town** as well, helping us putting together our camp stats:

- OR did 57 flights; 1862 mins and earned \$1117.20
- GK did 10 flights; 860 mins and earned \$430
- MQ did 10 flights; 800 mins and earned \$400
- DYT did 176 tows; 1127 mins and earned \$7816.70

Best regards

Roger Read



YOU ARE INVITED

SOCIAL DINNER
@TUTTO BENE
6 APRIL
7.30 PM



TERRY'S 300 KM SPEED WORLD RECORD

By Abbey & Terry

1 Jan 2017. Happy New Year! With reminasce of his Mexican moustache (vivid permanent marker) Terry was stalled out on the couch after a large brunch in Omarama. Dragging Dad off the couch in desperation not to miss a fab wave day we self launched cruising north to Mt Cook with no intentions other than a nice wave flight.

The sight out east looked fantastic, suitable for Terry's 300km 15m FAI speed World Record that he had been regularly attempting recently. Conditions were moderate Northwesterly with mid level moderate to strong wave conditions.

We had caught up with John Gorringe in his ASH30 taking photos alongside and decided to hoon flat out back to Omarama to get the ASW 27B RX in the air as soon as poss. The task was on.

Dad and I got ZF parked up, got the trailer and rigged RX, tanked it up with water, loaded tasks, got Official Observer Max Stevens on the flight plan, towed to grid, dealt with a water balance issue in the left wing and was airborne all within an hour of touching down in ZF.

Terry was towed up wind of the launch point about



2.5 miles where moderate to strong thermals gave a rapid passage directly into the wave.

His flight report stated

"This wave lead straight to the start point where one successful start was achieved and moderate to strong wave ran directly along the long first leg past Mount Cook to the North end of the Tasman Glacier.

This leg of the task was key to the flight with an average speed of 281 kph. The next leg of the task was unexpectedly slow and I was not able to find suitable wave to achieve my target height of 24,000 ft. Instead I had to settle for 18,000 and had to fly off track to minimise sink on the down side of the wave.

The second turn point was reached without problem and 3 or 4 moderate climbs were made on the final leg into wind to the finish point at Omarama saddle finishing about 1000 ft higher than required for safety reasons of severe turbulence in the area."

Smoking the current record by over 20kph Terry broke the world record with an average speed of 198.107kph.

All good things take time and Jim Herd said "What makes this record far more meaningful and impressive is the fact that Terry has been lusting after it for a couple of decades – since Klaus Ohlman took it away from him. Terry has driven 4 hours from Christchurch to Omarama 20 or 30 times in that period, expressly to attempt that same set of turn points at world record speed, only to be skunked on the ground as conditions didn't materialise. Also 20 or 30 actual flight attempts that didn't quite get the ball over the goal line for one reason or another."



CREWING - EUROPE EXPEDITION 2016

Living in Arizona I made a leap to the U.K. where I was invited by John Gorringer and Andy Perley owners in CC the hot spanking new ASH30mi syndicate to join a venture in Europe in June 2016.

Adventure being my middle name, I said absolutely and prospects were looking like soaring the Atlas Mountains in Morocco as John and Bill Walker previously did. Having visited this country before I couldn't wait to return and ended up exploring the scorching Sahara Desert.

Plans had changed with the glider and soaring across the English Channel to west Europe was plan B. We gathered at Lasham Gliding Club and packed the glider for a months sunshine retreat. Terrible weather forecast crossing the channel saw plan C arise to head for Spain and eventually France.

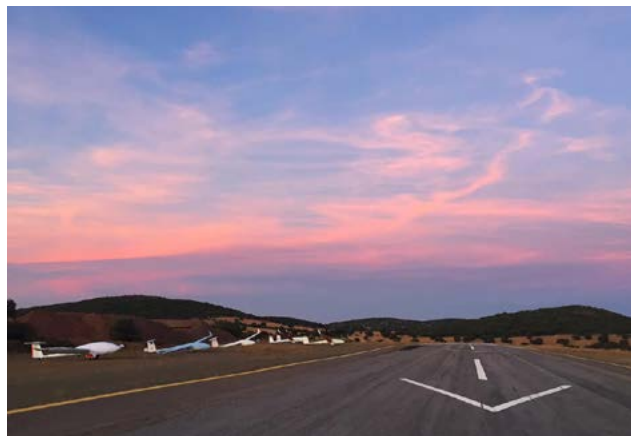
We boarded a 24hr ferry from Portsmouth - South England to Bilbao in North Spain, heading south to Fuentemilanos. We spent a bunch of days here as Perley and John were getting familiar with the hotship and soaring in a foreign land John had once visited years ago. When the boys were airborne and established I would visit the town nearby Segovia that was just stunning. The great thing about being in the remote backcountry no one spoke English. Anywhere. I recalled conversations ordering margaritas with Mexican locals.

CC joined forces with a Spanish self launching soaring group who were doing a similar exploration with catering and the whole shebang so we jumped on board the venture.

Everyone set south staying inland to a place barely on the map called 'Torre de Juan Abad'. Following CCs spot I would either call ahead or rock up to a truck stop, fluke some Spanish to leave the trailer parked safely and then go search for the boys location. This particular spot off the beaten track (literally) was tricky to find but amongst the rolling hills was this beautiful long sealed run way. The rest of the Spanish exploration fleet were there watching a magic sunset. Ox tail was served in a hay shed and the next few days the boys flew before heading north.

4hours north to Sotos near Cuenca (east of Madrid) was the next gliding destination, surrounded by a village with absolutely tiny street roads. Rather interesting expressions from locals sitting outside as I navigated a 40ft trailer through the most skinny twisty streets. You'd be proud.

A couple of flying days here in the cranking heat with the other Spanish guys and then we were Au revoir for France. This driving day was a patience test for sure on the day of Brexit, getting through it with Johnny Cash where by hour 18 I had lost my marbles with cabin fever. Nevertheless it was wonderful to be in France having an overnight stop in a rural French town north of Perpignan.



The next day we had a scenic drive to Serres in the French Alps. This air field is awesome! What an absolute gem. Surrounded by neat scenery, superb soaring, fantastic biking and not to mention an airfield pool and French cuisine.

This place will definitely win your spouse over for a gliding vaca. We were here over a week where John and Perley had some spectacular flights, joined by another syndicate member Afandy. Honorary Kiwis G and Annie were here also coaching a group from Lasham. I was lucky enough to soar the French Alps heading towards Italy, over many ski resorts with sight of the Matterhorn. Amazing!

Massive cudos to John for all his planning and prep as well as Perley for helping make the trip happen. I had an absolute blast!

- Abbey



FLYING UP AT NELSON LAKES



This year Greg Tucker and Kev Bethwaite took PB up to Lake Station/Nelson Lakes to fly at this club's annual "open week".

Nelson Lakes club has been holding this "open" week regularly over the past 15 years or so. I believe they started as an initiative by Jerry O'Neill (who is also a NLGC member) to foster camaraderie between the South Island clubs and in the early years it was common to see about 20 gliders from away.

This year it was a bit sad to find only 3 "foreign" gliders in attendance BUT we had some great flying.

The "open week" actually ran from Saturday 18th Feb through to Sunday 26th Feb, so 9 days in all.

Canterbury club was agreeable to PB going up just mid-week so as to retain availability to members on the weekend at SF. Kev packed up PB after regular flying at SF on the Sunday and drove up that evening. Greg had already traveled up with Sue the day before in their very cool retro caravan and set up camp down by Lake Rotoiti.

After dropping PB off at the airfield Kev continued up to Richmond to drop wife Lyn off at her sister's for the week (Lyn finds it more exciting talking to her sister than doing walks and reading books at the Lake).

Nelson Lakes doesn't have a tow plane, but does have a very good dual drum Tost Winch pulling wires out about 1500 m.

Monday saw Greg getting PB rigged and by the time Kev got back to Lake Station that morning the thermals were starting to pump. We launched up to about 1400ft AGL, the thermals died around 4500ft but we had a couple of hours reminding ourselves of the beauty of this region. Tuesday was a stronger day and we went out towards Murchison and down towards Lewis pass. On Wednesday Tim Hughes (who had been on holiday at Mapua) came down to see if a flight was possible. It looked like a beautiful day but turned out to be the only day we could only get up to the nursery ridge to the north of the field, so Tim and Kev went back and forth on the ridge (between 2900ft and 3300ft) for about an hour and a quarter.



Thursday and Friday were excellent days and our range extended over to Mt Owen, the 100 acres?? down to and over to the Raglans. Terry Delore casually flew his ash up from SF on Friday for a beer and back to SF on Saturday giving Frank Saxton a ride back down to SF. Not sure how Frank made it back to Nelson Lakes but obviously the attraction of a back seat ride with Terry was pretty much worth the hassle of somehow getting back home.

Kev and Greg packed up PB on Friday after flying and Kev drove it back to SF on Saturday morning to find a huge crowd at SF, not particularly waiting for his arrival but simply all out wanting to fly as it was a purler in Canterbury that day.

Cheers

Kev



TIM HUGHES: 9500' FLIGHT OFF THE WINCH

On Sunday afternoon, after Gerry self-launched and headed west into the mountains, reporting shortly after that there were great big blue thermals out there, and suggested that Derek Kraak might like to take a look.

With the tow plane briefly out of action, it's all hands to the pump to get everyone flying. Gerry often says you get out of a club what you put in, and I think it's great advice. Derek had been happily winch driving all day, but after Gerry's report we (at the caravan) decided there were enough volunteers happy to take over, so we made sure Derek could go flying, and I took over the winch driving for the rest of the day, until the last flight.

The winch drivers seat is a great place to figure out how things are going. You can watch the drift of the climbing gliders and the descending parachute to figure out the low level wind layers. You can watch the gliders after launch getting tossed about in wind-shear and realise that the low level sea breeze isn't very deep, and above it different conditions prevail.

Derek took off in PB with a passenger, with the surface wind more or less from the north with a bit of drift across the strip (windsock pointing at the clubhouse) and flew straight from the winch to the downwind hills to the south, successfully maintaining height on the ridges back toward bell hill, and inching very very slowly higher. Eventually he found some thermals and convergence to climb in front of Bell Hill, cross the gap to the Springfield ridge, get some wave and move off to the Cragieburns. It was plenty of careful work at

low level before getting into the good air- a job well done, and carefully observed from the winch seat.

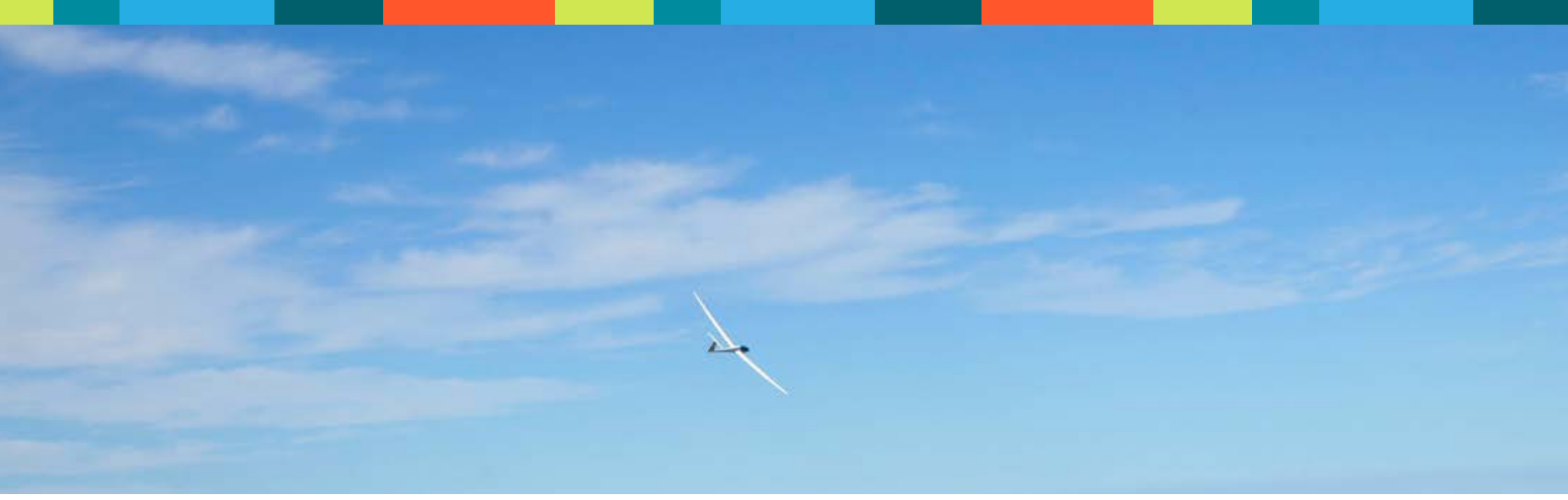
On later flights, the parachute came down from about 1000' agl first drifting toward the Springfield ridge, then for most of the way down drifting toward the clubhouse, then from about 200' drifting strongly toward the Springfield ridge. The surface wind had moved more easterly, nearly at times straight down 10. Aloft, there was clearly a norwest breeze generating wave.

In the bigger picture, Paul Marriott pointed out that the sea breeze pressure was likely also pushing up from the Rakaia end of the ridges and generating a local convergence in the gap between Bell Hill and the Springfield ridge.

So: the launch plan. I thought that there might be low level ridge lift near the quarry from the sea breeze, but the norwest over the top would make the area hazardous by creating lee turbulence on the eastern side of the ridge. Previous flights struck strong downdraft (8 knots) in the normal down wind (04) area straight off the winch wire and landed after a single circuit. The general plan was:

- head straight for the low ridge by the quarry after launch and look for local ridge lift from the sea breeze.
- stay within gliding range for a straight in landing on 10, bearing in mind the strong-ish surface wind and likely sink between the ridge and the runway
- climb near the ridge/quarry if possible, maintaining safe speed near the ground and an





easy escape away from terrain in the event that a big downdraft arrives.

- Try and work enough height to search for convergence lift in "the gap", or get into the norwester and go take some ridge lift from Bell Hill or it's spurs.
- Keep hoping for finding some wave once some altitude is gained. Derek got into wave near the Springfield ridge at 5500', and conditions were likely similar.

How did it work out?

Not bad, at first. 1100' from the winch launch: then straight to the ridge south of the quarry, accelerate to 60 in anticipation of the expected sink in the valley, and keeping a sharp eye on a landing on runway 10. Found sink on the way, then as I approached the hill, some lift, then a lot of lift. Going up at 4 to 7 knots with some turbulence, then going down at about the same speed. I s-turned around looking for the lift generated by the ridge, and working northwards towards higher ground. After making it to above 3000' towards the northern end of the ridge, encountered strong sink that I couldn't escape from and made a rapid trip back to the quarry and the end of the low ridge at 2000', close to downwind for 04, and back where I started.

Try 2: low level ridge soaring to find the lift again, a couple of s-turns back and forth to gain height, then strong turbulence and sink abeam the quarry - and control challenges! Keep your speed up at low level, fly with an escape plan and all that... good advice. Clearly I'd encountered some lee turbulence, nose down, maintain speed and flight angle of attack, quick turn away from the ridge toward the quarry, and maintain speed out of the valley toward that lovely landing vector 10, and re-entering the fairly reliable ridge lift on the way.

Try 3: The sea breeze and ridge... managed to stay out of the lee turbulence and found strong lift again, as expected upwind of the top of the ridge, maneuvered to keep in the strongest lift. I really enjoy that view when the ridge ahead just seems to fall away. Strong climb 4-9 or more knots all the way to the top of the ridge, and through the shear into the norwest. Turbulence was continuous, so I was obviously just above the low level breeze, but at about 3500' high enough to head off into the gap and on to bell hill. Found plenty of disturbed lift in the gap, then more consistent lift near Bell Hill, which I presume was the norwester pushing onto it there. At one point on that journey found what seemed to be a good thermal winding its way along, and spent many minutes quietly going in circles and drifting downwind in the norwest flow to about 7000' south of the field.

Then wave. Clearly, wave. smooth, not all that strong, but zig-zagging slightly left (upwind) and then right, helped find the best lift and I tracked north, parallel to the Springfield ridge and Torlesse range to stay with it. I figured it would be more or less about a constant distance from the Torlesse range. It had gaps every now and then, so I tooled around a bit to pick it up again. Three times. I was determined to get to 9500' if I could, and did so the third time I picked it up. The GFA was active, so 9500 was available overhead the field, and a quick check of the map told me not to cross the railway line.

I'm very grateful to everyone who hung about on the ground, as I was the last one up and keeping everyone waiting. Down there. Really small and far away looking. So - late enough in the day, and height goal reached, time to descend. There was now strong lift up there, so maneuver away from the wave and deploy the brakes, and make wide circles around the valley for ages. South of the field, and north east of it I struck strong lift , with

the glider climbing with brakes fully deployed. Change tactics to go look for sink.

Its a bit like coming back to Christchurch after a long powered plane trip; it just gets busier and busier as the landing approaches. On powered flights I used to make a point of trying to wake my self up from a lazier flight mode as the airspace got busier, and figured it would be wise on this flight too: so a bit of planning and mental rehearsal for landing on the way down didn't go amiss.

At low level down wind for landing, strong turbulence with occasional lift. Keep an eye on the windsock - no turbulence and not much wind at the surface. Presume strong-ish wind just above the ground as there was clearly plenty where I was at 700 agl. Check energy and height on cross wind leg - speed going up and down by 5 knots or more. Ouch. Make sure the energy level is about right (wanting 55-57 knots on average), on finals make sure brakes give undershoot/overshoot control,

then aim to easily clear the fence and maintain attitude/speed. Turbulence down to about 20 feet agl, then round out into less headwind! Keep the brakes well deployed as the airspeed increases during the flare in those conditions. It seemed impossibly calm on the ground.

Thanks to all who stood around waiting for the last straggler of the day. From my perspective , it was a great flight putting into practice all the pieces of the training I've received so far, and experiencing a bit of everything the area has to offer, including the views from on high. Now, I have to learn to leave the nest, and perhaps look for a glider of my own before too long.

Thanks too to all of you who have instructed me, or just let me listen in on the banter and the talk about techniques and experiences. It really is true: you never stop learning in this gliding game.

Cheers, **Tim**





CLUB CALENDAR

- **6 April** - social dinner at Tutto Bene (*details on page 9*)
- **7-9 April** - Scout camp at Springfield
- **12 April** - Executive committee meeting
- **14-17 April** - Easter weekend
- **25 April** - ANZAC Day
- **29/30 April** - Cross Country Course at Springfield
- **6-7 May** - Cross Country Course at Springfield
- **17 May** - Executive committee meeting
- **20 May** - Working Bee at Springfield
- **14 June** - Executive committee meeting
- **16 June** - Working Bee at Springfield
- **17 June** - Winter club competitions (to be confirmed)
- **12 July** - Executive committee meeting
- **14 July** - Mid-winter Christmas Party (to be confirmed)
- **15 July** - Working Bee
- **16 August** - Executive committee meeting
- **19 August** - Working Bee

Safety Briefing



Accident Review 2016

There has been an average of just over one fatality per year at BGA clubs in the nine years since 2008. This is a dramatic reduction from the nine-year average of more than 5 fatalities per year from 1974-2007. The reduction stems from fewer winch accidents, successful bailing out after collision, and fewer serious accidents in other categories. *Inadvertent spins, however, have continued.* This booklet offers guidance on how everyone can help to avoid a repetition of inadvertent spins and other accidents.



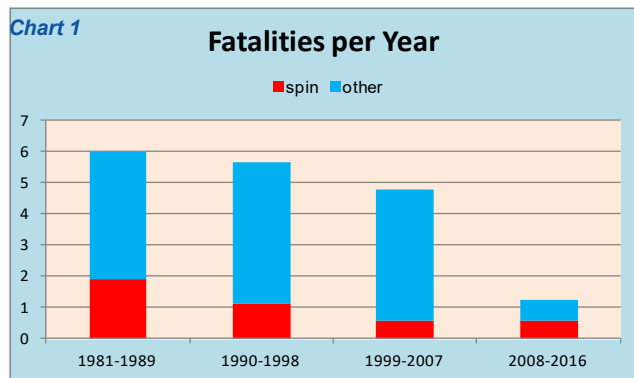
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Accident Review 2016

Fatal Accident Trends

The year 2008 was the first since at least 1974 with no BGA fatalities. In the 9 years since 2008 a total of 11 persons (9 glider pilots) have died in glider accidents - an average of just over one per year. The previous 9-year average was more than 5 fatalities per year. Chart 1 shows that while fatalities from winch launching, collision, and other categories have declined dramatically since 2008, spin fatalities have continued. Five of the 9 glider pilot fatalities since 2008 were from inadvertent spins.



This review covers the 12 months to 30 September 2016. There were two fatal accidents on 4 December 2016. One was a mid-air collision between a glider and a Cessna 150, fatal to the glider pilot. The other was from a failed winch launch. These accidents are being investigated by the AAIB and will be included in the 2017 report.

Accidents in 2016

Fatality

The single fatality in 2016 is under investigation by the AAIB.

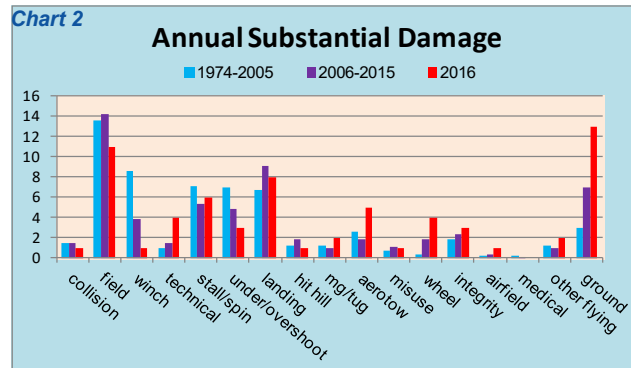
Serious Injury

Six people were seriously injured in 5 accidents:

- First take-off in Silent 2, climb gradually steepened until the aircraft stalled
- Distracted by possible lift, stalled on approach to field landing
- Glider flown over a flat area behind the ridge of a Spanish mountain, unable to glide back over the crest
- TMG, simulated approach into a field, engine did not respond, turn, wingtip caught ground.
- Glider being moved by hand, wing hit club member who fell, breaking leg.

Substantial Damage

Chart 2 compares substantial damage accidents in 2016 by category with the annual averages for the previous 10 years and the period 1974-2005. There were 6 stall/spin accidents in 2016 and just one winch accident. There were more non-flight accidents on the ground than from field landing.



Accidents by Category

1. Stall / Spin

Inadvertent spin can kill.

The stall/spin accidents in 2016 were:

- First take-off in Silent 2, climb gradually steepened until the aircraft stalled
- Distracted by possible lift, stalled on approach to field landing
- Pilot spun, recovered very low, and stalled at 20ft from a slow approach
- Flying close to the slope below the crest of a ridge, stalled and sank onto a plateau.
- 4 stalled landings at heights of 7 to 15ft.

The 6 substantial damage accidents is similar to the annual average in the past 10 years and from 1974-2005 (chart 2). Stall/spin accidents remorselessly continue in spite of repeated exhortation to Fly the Glider as the first priority regardless of the circumstances.

In the last 20 years, pilots with more than 20 hours as P1 accounted for 90% of stall/spin accidents with substantial damage. The accidents took place in circumstances of high workload and/or distraction. Nearly half of the accidents were while field landing, especially in strong winds. One-fifth followed an attempt to return to the home airfield.

These accidents are occurring to proficient pilots who had momentarily ceased to give priority to flying the glider. This may only have been for a few seconds, and this lapse may be the first in decades of accident-free flying. Survivors accounts speak of the spin being completely unexpected and surprise when pulling the stick back failed to raise the nose. These pilots knew how to fly. They were presumably in shock and reacted intuitively.

Please review and consider the following guidance in respect of your own flying and (if you are an instructor) how you teach pilots to keep safe.

- **Before the event**
Identify how stress could affect you. Perhaps speed control or general handling deteriorates, or your ability to analyse. Do you find decisions harder to take? Perhaps goal focus makes it harder to recognise the inevitable, in particular a field landing. Is your glider sensitive to mishandling? Explore the low speed end of the flight envelope at a safe height to avoid surprises.
- **Spot high stress situations before you are in them**
For example, fatigue, difficult soaring, marginal glidepath, field landing, engine deployment, wind and turbulence, poor visibility, airspace, air traffic control, hunger, dehydration, full bladder. Are you heading towards tougher conditions? Have you elected to continue the flight in spite of deteriorating conditions?
- **Take mitigating action**
Reduce distractions and prepare for the conditions - for example set the GPS to the nearest airfield, monitor your airspeed, attitude, and altitude more frequently. Consider a more spacious circuit, be prepared to choose between unpalatable alternatives. *Avoid a state of denial.* Think explicitly about AVIATE, navigate, communicate.

Accident Review 2016

2. Collision

There were no glider-glider or glider-aircraft mid-air collisions in 2016. This makes two successive collision-free years, after the four collisions in 2014 involving 10 pilots; 5 of these pilots bailed out - all successfully.

The advice to avoid a collision is unchanged:

- maintain **SITUATIONAL AWARENESS** and **INTENSIVE LOOKOUT**. Flarm is an **AID** to lookout.
- follow the guidance in the **BGA safe soaring protocol**.



<https://members.glidering.co.uk/?p=16726>

To bail out successfully:

- review the **BGA advice on getting out after a collision** at <https://members.glidering.co.uk/?p=16710>. Your life may depend on taking the correct actions immediately.

3. Glider Integrity

Shortcomings in preparing a glider for flight can be lethal and are completely avoidable.

Rigging faults were detected on four occasions in 2016:

- Unlocked Astir wing collars were found at DI, after 11 flights on 3 days
- A K21 hotelier airbrake disconnected in flight, after 92 flights since rigging
- A newly acquired Pirat was difficult to fly; at the next DI a pivot ball was found to be missing
- A DG505 had flown several times since rigging; at the next DI a drag pin was found to be incompletely inserted and insecure

The members conducting these DIs did well; previous DIs had not detected the shortcomings. In addition:

- 6 canopies opened in flight in 2016 and there were 7 instances of flight with airbrakes open, loose articles, and a tail dolly



A BGA booklet on safe preparation of a glider is available. It includes advice on making hotelier connections. Please read it.

<https://members.glidering.co.uk/?p=23161>

- **Rigging should be directed by a person experienced on the type, in accordance with the flight manual, without interruption or distraction.**
- **A newly rigged glider should always have a daily inspection (DI).**
- **The DI should be conducted by a person experienced on the type, without interruption or distraction.**
- **Positive control checks should be carried out every time a glider without automatic control connection is rigged.**
- **The pilot should carry out proper pre-flight checks, again without interruption or distraction.**

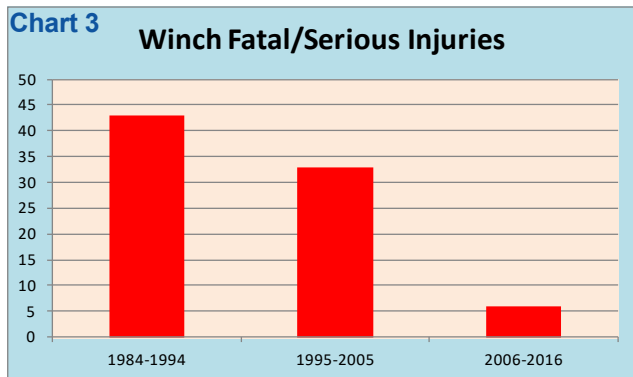
4. Winch

There were no fatal or serious injury winch accidents in 2016 and only one substantial damage accident.

There were three wing drop accidents and incidents:

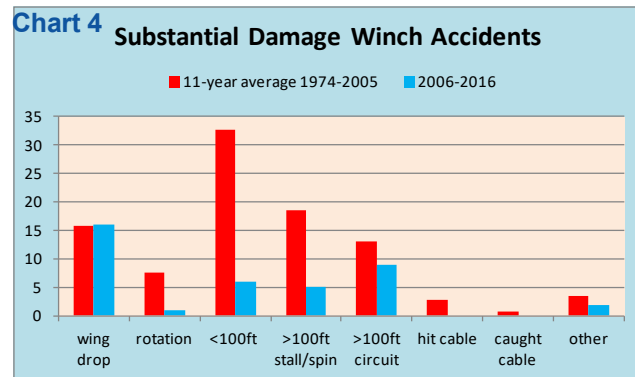
- wing drop, stop signal, pilot picked up wing, rotated too rapidly and too steeply, power cut at about 40ft, glider descended stalled through the wind gradient
- wing drop, late release, groundloop
- wing drop, continued with the launch; a video of this incident is available (<https://members.glidering.co.uk/?p=28059>) showing how little time there is to release before the wing touches the ground, and hence the importance of keeping the hand on the release and releasing IMMEDIATELY if there is difficulty in keeping the wings level.

Chart 3 shows that in the 11 years of the safe winch launch initiative there have been 6 fatal or serious injuries from winch accidents compared with totals of 33 and 43 in the two preceding 11-year periods.



Fewer fatal or serious injuries from winch launches has been driven by fewer injuries from an accelerated stall during rotation, from a stalled landing after launch failure below 100ft, and from a spin after launch failure in mid launch. There were 3 such stall/spin injuries in the most recent 11 years compared with a previous 11-year average of 31 such injuries.

Potentially fatal wing drop/cartwheel accidents continue. Three of the six fatal/serious injury accidents since 2006 followed a wing drop and cartwheel. Chart 4 shows that the substantial damage wing drop accident total in the last 11 years is exactly the same as the previous 11-year average.



5. Ground

In every wing drop accident the wing dropped immediately after the wing tip holder let go. That means there was an up or down force at the stationary tip that the wing tip holder was resisting. Guidance for the wingtip holder to stop the launch if there is an up or down force at the tip is included in the current edition of the safe winch launch booklet and leaflet but this has clearly not reached everyone.

The wing tip holder has a safety critical role in a winch launch and should be trained accordingly to STOP THE LAUNCH while the glider is still on the ground if there is an up or down force at the tip. Please ensure all your members are aware of this guidance.

Advice to the pilot needs continual reinforcement, not least to new members. Please ensure all club members are aware of the safe winch launch booklet (<https://members.glidering.co.uk/library/safety/safe-winch-launching-booklet/>) and have access to a hard copy, available from the BGA office. The essence of safe winch launching is unchanged:

- If you have difficulty in keeping the wings level before take-off, release before the wing touches the ground
- After take-off, maintain a shallow climb until adequate speed is seen with continued acceleration. Then allow the glider to rotate at a controlled pace. If power is lost near the ground, immediately lower the nose to the appropriate recovery attitude.
- After power loss in mid-launch, adopt the recovery attitude, wait until the glider regains a safe approach speed, and land ahead if it is safe to do so.
- If you are an instructor and P2 makes a mistake, take over immediately and demonstrate a safe recovery.

33 accidents/incidents in 2016 took place on the ground, unconnected with flight. These included one serious injury, 13 substantial damage, and 17 minor damage accidents:

Moving gliders by hand

- Wingtip struck a club member, knocked to the ground, breaking leg
- While being pushed back to the hangar, the tug's wingtip hit a glider rudder
- A K13 wingtip hit a K21 elevator as the glider was being pulled forward
- Glider incorrectly loaded onto hangar dolly

Injury/damage caused by vehicle

- Gator suddenly went backwards running over a person and damaging a glider
- Four instances of moving vehicles damaging parked gliders

Winch cable

- The instructor and a trial lesson visitor dived to avoid the wing of their landed glider when it was dragged 50 metres by a winch cable
- Cable break on ground, glider pushed forward, radio call then broken cable towed towards winch, parachute hit a club member and knocked him onto the glider's wing
- Tractor brought 4 cables to the launch point, one not released, tractor driven round back of manned glider, cable struck person and cable pulled over the stationary glider

Towed glider

- Retrieve vehicle drove off before the glider had been released, two people were knocked down by the moving glider which also damaged another glider
- Pilot hit by wing leading edge just above an eye. The glider had been hooked up to a retrieve buggy and the driver moved off before the pilot was ready

Safe Trial Lessons/Introductory Flights

- Nine instances of a towed glider hitting the towing car, a parked glider, a parked vehicle, a hedge, a pole, and a crop

Taxiing accidents

- Three collisions and two prop strikes

Other

- Canopy blown shut, canopy damaged by mower destroying charging cable, pilot's parachute caught on canopy catch, jockey wheel of trailer disengaged damaging glider in trailer, TMG engine fire

Accidents on the ground in 2016 resulted in one serious injury and had the potential for several additional serious injuries. There were more substantial damage accidents on the ground than in field landing!

Can you help to stop these unnecessary accidents?

6. All Other Categories

The appendix summarises each one of the 66 substantial damage accidents in 2016. The totals in each category are also shown in chart 2. Thirteen of these accidents were field landing (of which two were stall/spin). Of particular concern was the glider that hit the ground in the lee of a mountain, 8 landing accidents on the home airfield, a take-off performance accident on aerotow, an attempted landing holding the flap lever instead of the airbrake, and the TMG accident with serious injuries when the engine failed to respond while practicing a field landing.

There were too many incidents in 2016.

Please ensure everyone in your club follows the guidelines on the BGA website ([Laws and Rules/Managing Flying Risk/Flying With Passengers or Student Pilots](#))

Towards Fewer Accidents

The sources of serious accidents have not changed. Means of avoiding these accidents are summarised in the following table.

Accident	Principal Cause	Actions for Avoiding
Winch	Stall/spin, cartwheel	Follow leaflet guidance
Stall/spin	Overload, distraction	Fly the glider! Take action to mitigate potential overload
Collision	Poor lookout	Lookout, Flarm
Integrity	Rigging incomplete	No interruption/distracton
Tug Upset	Poor technique	Training
Landing	Poor technique	Training
Field Landing	Field picked late	Pick field early

Accident Review 2016

Appendix – Fatal, Serious Injury & Substantial Damage Accidents in 2016

Category	Accidents	Circumstances
Field Landing	11	Final glide aborted at 300ft, hurried field landing
		Cross-slope, groundloop
		Attempting to climb at low level, drifted downwind, undershot
		Groundloop
		Approach too fast, attempted to change direction on ground, groundloop
		Landed in crop thought to be grass, groundloop
		Landed downwind, downhill, overshot into far hedge
		Stressed pilot but skilful approach into 200m field in Italian alps, bounce and yaw
		At 100ft half way across the field, tried to reverse landing direction, cartwheel
		Farmer's strip, lifted wing over bale, groundloop
		Power wires seen late, overshot, ran over boulders and through wire fence
Winch	1	Wing drop, stop signal, pilot picked up wing, rotated too rapidly and too steeply, power cut at about 40ft, glider descended stalled through the wind gradient
Stall/spin (includes field stall/spin)	6	1st take-off on Silent 2. Climb gradually steepened until the aircraft stalled, SERIOUS INJURY
		Early solo pilot, low sun, round out too high, stalled from 10ft agl
		Flying close to the slope below the crest of a ridge, the glider stalled and sank onto a plateau.
		First flight on type, stalled at about 15' agl.
		Distracted by possible lift, stalled on approach, SERIOUS INJURY
		Very slow approach, stalled onto runway from 7ft agl

Category	Accidents	Circumstances
Undershoot/ Overshoot	3	Overshot and ran into a stream
		Strong sink, undershot into rape
		Strong sink, undershot into rape (10min later)
Landing	8	P2 ballooned, P1 allowed the student to continue although the airspeed had decayed
		As the glider ballooned the pilot closed the airbrakes & then lowered the nose before landing heavily, bouncing and groundlooping
		Wind gradient, heavy landing
		Groundloop
		P2 locked onto the controls during undershooting approach
		Cartwheeled in wind in excess of 30kt
		Cross wind landing demo, collided with trailer; pilot fatigued
		Aerotow rope release at 400ft, heavy landing in turbulence
Technical	4	Undercarriage collapsed on landing, part of the operating system had failed
		Undercarriage collapsed during landing, the wheel fork was found to be fractured and bent.
		Undercarriage would not retract due to broken strut
		Tailwheel sheared off during normal landing
Hit Hill	1	Glider flown over a flat area behind the ridge of a Spanish mountain, unable to glide back over the crest, SERIOUS INJURY

Accident Review 2016

Appendix – Fatal, Serious Injury & Substantial Damage Accidents in 2016 (cont)

Category	Accidents	Circumstances
Motor gliders/ tugs (accidents different from stall/ spin, landing, etc)	2	Tow rope and rings hit glider.
		Successful simulated approach in TMG into a field, the instructor opened the throttle to climb away but the Limbach engine did not respond, wingtip caught on the ground during turn, TWO SERIOUS INJURIES
Aerotow	5	Wing drop, groundloop
		Canopy detached, tug upset, weak link broke
		Unfamiliar tug, unusual take-off run, tug stopped accelerating in long grass, tug pilot released, glider went through post and wire fence
		Wing drop, groundloop
		1st on type, belly hook, wing drop, late release, hit hedge
Control Misuse	1	Touched down long, PIOs, went through a/f boundary onto road, flap lever employed as airbrake
Wheel	4	P1 was coaching on circuit planning in high performance gliders, neither pilot performed pre-landing checks
		About to round out, swapped hands on the controls, tried to lower the undercarriage, heavy landing, bounce.
		On short final pilot thought wheel was still up, swapped hands on the stick, lost control of the glider, heavy landing
		Wheel up landing on runway
Glider Integrity	3	Rear canopy opened during aerotow.
		The pilot struggled to maintain a safe vertical position on aerotow, the airbrakes came open, the pilot shut them, released the rope at 100' agl, turn, wingtip caught on the ground
		Canopy detached on winch launch and hit tail
Airfield	1	Landing, pothole in runway

Category	Accidents	Circumstances
Other Flying	3	Bungee launch in 40kt wind, wing drop, glider blew over
		Birdstrike in Spain
		AAIB investigation, FATAL
Ground	14	Glider being moved by hand, wing hit club member who fell and broke leg. SERIOUS INJURY
		Retrieve vehicle drove off before the glider had been released, two people were knocked down by the moving glider which also damaged another glider
		Parked glider damaged by tow vehicle.
		Vehicle reversed into the rudder of a parked glider.
		Engine fire in parked TMG, 3 hours after flight.
		Glider being towed by a motorhome which made a tight turn, the ladder fixed to the rear of the motorhome damaged the glider's elevator.
		Club member forgot that the Nimbus was still attached to a club tow vehicle as he got into the car to put it away, Nimbus hit parked Vega
		Wing of towed glider hit crop
		Towed glider hit a parked car, then the towing car
		Wing struck towing vehicle
		Club landrover was reversed into the parked tug
		Tug pilot taxied into parked glider
		Gator suddenly went backwards running over a person and damaged a glider
		Exiting glider, parachute caught on canopy catch



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