



Soaring AUSTRALIA

July 2005



JoeyGlide 2005



When to Dare

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Open Libelle VH-GUK, flown by Mark Bland from Mt Beauty Gliding Club over Lockhart

Photo: Felix Niewenhuizen from Wagga Wagga Gliding Club Blanik, VH-GUH

Soaring AUSTRALIA



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News, Letters to the Editor, New Products,

Events Calendar entries

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HGFA members should submit classifieds (secondhand gear for sale) to the HGFA Office <office@hgfa.asn.au>. See HGFA Classifieds section at rear of this magazine for more details.

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Email Club News to <clubnews@hgfa.asn.au>
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DEADLINE FOR ALL CONTRIBUTIONS:

25th of each month, five weeks prior to publication.
Photos and materials will be returned after publication only if a stamped, self-addressed envelope is supplied. Otherwise, photographs, whether published or not, will be filed and may be used subsequently in further publications.

FLATTER THAN THE FLATLANDS

Birchip 2005

Ian Rees

OVER 60 PILOTS FROM VICTORIA AND SOUTH AUSTRALIA, BACK FOR THE 12TH ANNUAL FLATLANDS TOW COMPETITION OVER THE EASTER LONG WEEKEND, WERE WELCOMED ONCE AGAIN BY THE NORTH-WEST VICTORIAN TOWNSHIP OF BIRCHIP. PILOT BRIEFINGS WERE HELD AT THE RSL HALL IN THE CENTRE OF TOWN EACH MORNING. IT WAS HERE THAT HUGH ALEXANDER PRESENTED PRIZES TO THE DAY WINNERS AND ALSO TOLD STORIES OF MISADVENTURE. WESLEY HILL PROVIDED THE SCORING AND IAN REES WAS WEATHERMAN.

DAY 1

Winds were predicted to be out of the south at 20kt. We went to the paddock and waited for them to abate during the afternoon, but it didn't happen. The day was called due to the strong winds, with many large dust devils ripping through.

Later that day a well known SA pilot was seen to be converting his car number plate from ULG332 to ULGY332 with a black texta, unaware that the long arm of the law was watching. The polite Sergeant asked the pilot if he was defacing a number plate; the pilot was too shocked to offer a reply. However, this was Birchip and so only a good laugh was had.

DAY 2

The winds calmed to light and variable with a pressure ridge extending through the area around 4pm. We decided to tow from the eastern end of the paddock. Tow cars were triggering thermals in the paddock and the winds often sucked tailwind. Many pilots waited on the towline for up to an hour for the winds to enable a tow. Some were not patient enough and gliders took the punishment for poor technique. Mark O'Keefe tried the hardest to plough in during a blown launch attempt. Those that managed to get a tow got away and did well. The task was called to Beulah, 53km to the WSW. The South Australians showed that they had come to kick some arse; they filled three of the top four places for the day, with only Wesley Hill standing up for the Victorian team. Steve Blenkinsop won the day and was presented with the Superman costume the next morning. The day was worth only 271 points.

DAY 3

The weatherman had finally brought good news. Winds were forecast to be 10kt out of the WSW and a task was set to Lake Boga, 64km downwind. Many of the pilots had flown this task over previous years and the route to take was well known. It was to be a race, which saw 21 pilots in goal. Alan Beavis and Trevor Sangster both launched together at 1:58pm, about half an hour after the first pilots got away. They both used the slower pilots to their advantage and Beavo won the day with a time of 1:29, getting in five minutes before Trevor in second place. Overall, Beavo, Trevor and Wesley were in the lead. The Victorians had had some catching up to do in the team challenge and they did it well. Only one South Australian pilot got into the top 10 for the day. The Victorians were in front.

That evening, the tow teams performed in a Red Faces competition back at headquarters. The Berrigan Blow-ins performed the story of a cross-country flight using Andy Philips as the pilot in a simulator. The story followed the flight from the tow launch through mishaps along the way, such as a broken tow release system causing tomato sauce to spray Andy's face in a simulated recoil. Our guest judge from the local paramedics was a bit shocked when she saw what hang glider pilots get up to after a few beers.


DAY 4

The weather was forecast to be 10kt from the SSE, with no clouds and thermals to about 5,000ft. We set a task to Nandaly, 62km to the NNW. Scores were close and the winner was going to have to go fast. Pilots launched between 1:30pm and 3pm and 20 made goal. Steve B had nothing to loose after blowing Day 3 and he won

the day in a time of 1:40. Wesley Hill managed to stay one thermal in front of Steve and finished second for the day, which was good enough to hold on to first place overall. It was Wesley's first win at Birchip after 12 years of trying. Well done, Wes.

THE RESULTS AND BBQ

The last day finished with a BBQ back at headquarters where prizes were awarded from 1st down to 24th overall. Thanks to Vanessa for running the BBQ. The overall 1st place went to Wes, followed by Peter Lissenburg and Alan Beavis. The Kingpost class was won by Peter Davies flying an Aeros Discus followed by Nick Fletcher on an Xtralite 147. Since Peter also owns a topless, the prize of \$2,500 off a topless glider from Airborne Windsports went to Nick. Congratulations, Nick. See you at goal again next year. In the Floater class, Helen McKerral won in her first ever comp followed closely by Andrew Taylor. Helen also won the Skypig award for clocking the most hours. The lucky 13th prize of a new ICOM radio went to Adam White. The team's trophy was won again by "Show Me the Money", consisting of Wesley Hill, Steve Blenkinsop, Trevor Sangster, Migel DeJong and Ian Rees. "Team Clown" came second. The Victoria versus South Australia challenge was won by the Victorian team with a score of 7073; South Australia came in with 6,006 points. Ian McLelland (the landowner) received a nice 21-year-old bottle of port and a gift for his wife Anne from the pilots as thanks for use of the paddock and his preparation of the tow strips.

Special thanks go to all of our sponsors including Moyes Gliders, Airborne Windsports, Dynamic Flight, Peter Holloway, Peter Lissenburg and Peter Davies. 



Splint Does Dalby

Simon Plint

IT WAS BILLO WHO SUGGESTED I GET MY ARSE UP TO DALBY. HE WAS LEAVING EARLY SATURDAY MORNING AND THERE WAS A SEAT IN HIS TRUCK IF I WANTED IT. HE WAS ONE OF THE TUG PILOTS FOR THE UPCOMING DALBY BIG AIR COMP, BUT THERE WOULD BE AMPLE OPPORTUNITY FOR ME TO GET SOME TOWING IN FOR MY AEROTOW ENDORSEMENT.

Just another 'crap' day in Dalby

Photo: Simon Plint

He picked me up at 6:30am and we drove up through the Hunter Valley, Moree, Goondiwindi, Millmerran and onto Dalby. We listened to Billo's endless supply of tapes until John Williamson started to sing very strangely. With the tape player threatening to chew up the tape I thought I would surprise Billo with the fact that I had John Williamson on my iPod. What really impressed him was the fact that I could play it through his car radio using my iTrip FM transmitter, no wires required. "Mmm, I might have to get one of those," he said.

We arrived at Dalby airstrip about 5:30pm and Adam Parer and Ebbs were waiting for a tow from the Dragonfly. Cameron and Al Daniels were already in the air. JOD suggested that I set up, as conditions were perfect with a steady 6kt easterly and a nice slow tug.

Before I knew it my Sting was set up and I was hooked in behind the Dragonfly, ready for a foot launch. After the first three or four steps I could feel the kite was flying and I let myself fall into prone as my hands slid down the uprights and onto the basebar. But there was a lot of dust and for a second my mind stopped to wonder why. I then

realised it was from the tug, which was below me, so I pulled the bar in and went down into the dust as the tug lifted off. I followed the tug back up and remembered to keep its wheels on the horizon. I also remembered to make my turning corrections with short stabs. I wasn't quite on top of it though, and after my second major deviation and some confusion about the signals Smokey, the tug pilot, was giving me, I pinned off at about 1,500ft.

Now I could relax a bit and float around. I had deliberately not taken any instruments or radio, as I wanted my focus to be completely on the tow. I wafted back to the strip in the buoyant evening breeze with the sun setting in the west and a near full moon on the rise in the east. It was magical. Now all I had to do was land, which I managed to do not too far from the hangar.

As I packed up someone was walking around with a carton of stubbies and I gratefully accepted one, thinking to myself, "How good is this?" I was about to walk my kite into the carpeted hangar and pack up whilst enjoying a cold beer. However there were more tows required over the coming days to get my endorsement, and not all would be with perfect conditions...

The next day, Sunday, we headed out to the strip early and a tandem tow was just taking off. Billo handed me a set of headphones and a helmet and suggested we get some air-to-air video with my camera. He buckled me into the back seat of the trike and we taxied down to the end of the access road and stopped to warm up the oil. Billo told me to hang onto the camera because if it went through the prop we'd be history. He needn't have worried, as my knuckles were white already. This was a \$4,500 camera and if I dropped it my wife would kill me anyway.

We turned onto the strip and lit the wick. The big four-stroke Rotax propelled us straight up and Billo banked us over as the strip dropped away. We had missed the tandem tow though, so we flew over the town. Eventually I popped the camera off my eye and took a look around, at the town and the patchwork quilt that surrounded it. The cotton harvest was nearly over but there were some white paddocks left. The others were black with neat plough lines, or brown where the sorghum had been left in the ground for another season.

Billo spotted another tandem tow leaving the strip, so we darted over to be above



Before the rain
Photo: Don Cramer

them. I got some great footage of the big tandem hang glider on tow behind the Dragonfly, and also after the release as we buzzed them both. We landed before the tandem, so I was able to catch the elation of the passenger as he was being congratulated by Boof, the tandem pilot.

Sunday was the first day of the Dalby Big Air comp. There was a lot for Billo to do after our filming flight and no chance of an early tow behind the trike. Anyway, I was happy to have had a ride in the trike and at \$25 a tow behind the Dragonfly I was concerned about having enough cash to last the week. I resigned myself to getting some video footage of the comp towing with the distant thought that I may be able to make a DVD and sell it to recoup some of my expenses. And maybe I could get another tow at the end of the day?

I spoke to Jay, the Launch Marshall, to make sure it was okay to take the camera onto the strip. I had not brought my tripod with me and so I borrowed Billo's. I'm used to a nice fluid head and a bubble level, but this tripod clicked and jerked until I picked it up and held it against my chest like a steady cam. The footage was okay, though I wasn't totally happy with the point of view I was getting.

Later in the afternoon Billo and I went to retrieve Camo, 14.5km north-west of Dalby. The task for the day was open distance, he who flies the farthest wins. Camo found the air different to what he was used to and had trouble adapting, but Seibsy, Adam and the others were approaching Roma, some 230km away, and weren't going to be back anytime soon. The three of us had dinner, then a beer or two at the Country Club, wondering what tomorrow would bring.

Billo and I were out at the strip early again so he could do a temp trace in the trike. When he landed he said it was too rough for tow instruction, so I volunteered to help Jay by looking after the tow line for the trike. This was really good instruction for July 2005

me as I got to see a lot of towing up close. I was in the thick of it and giving the "Go Go Go" signal to Billo as he ripped another soul into the air. The task for the day involved a number of turnpoints and was to end in Chinchilla. The sky was full of clouds and nearly everyone got away.

Late in the afternoon it was suggested that I could have a couple more tows. I foot launched again, into breeze, without too much trouble. Billo towed me to 1,500ft and there were no thermals to speak off. This time when I came into land the wind had dropped off and I stuffed up my landing by flaring too late. I landed on my knees and the rough, cracked black dirt instantly removed the skin from both of them. At least the wheels saved my uprights and wallet!

Billo suggested I have another tow and, despite the knees, I started to feel quite comfortable on tow. I actually loosened my grip a bit and started reacting to the trike's movements more quickly. On previous tows I'd been waiting too long to correct. With towing you must be on top of things all the time because they can get out of shape real quick. When the trike went up I let the bar out straight away and when the trike went down I pulled the bar in to my knees. I had been worried that my wing would start to yaw a lot when I pulled on speed, but the Sting was good.

My second landing wasn't much better than the first. Billo asked if I wanted another tow, but his face was telling me that two was probably enough for the day. I parked my Sting in the hangar and we headed back to the cabin.

Tuesday, and I still hadn't done any real flying. Sure, I had come to get tow endorsed, but the thought of another day watching everyone get up and away wasn't easy to take. At this rate even if I got my endorsement it was going to be pretty expensive. I think Billo could sense my frustration and he suggested I "dig in" with the rest of the field. I mentioned this to Jay and he was



Can you see me?

Photo: Peter Bolton

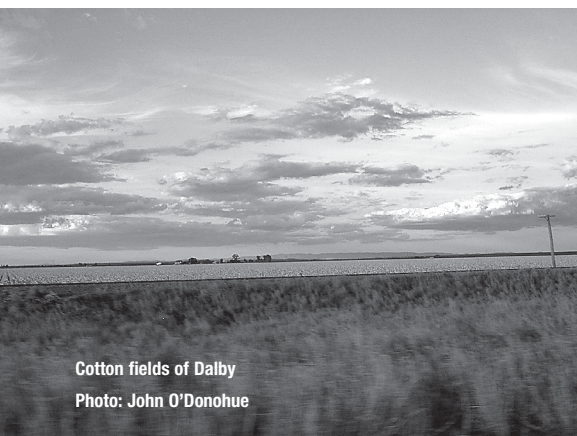


Beer o'clock

Photo: Peter Bolton

keen for me to go sooner rather than later when the rest of the comp pilots were trying to get away. The only problem was that my hang glider was hemmed in at the back of the hanger by all the comp gliders. I asked one pilot if he could move his a little while I tried to get mine out. He said he could but not till after the briefing. Al Daniels and Camo heard this and to my surprise started to lift my kite high above the others and out onto the strip. Such a display of mateship was overwhelming, considering these two pilots were themselves getting ready for the day's task.

The wind was "light and scorable" and Al wisely suggested I use the dolly. This would be the first time I had used the dolly



Cotton fields of Dalby
Photo: John O'Donohue

and thoughts of the wind getting under one wing and flipping me on take-off went through my head. I was later to find out the hard way that, in light and variable winds, the dolly is better. Anyway, the Dragonfly took up tension and I pulled through the A-frame and yelled "Go Go Go!" I started rolling through a cloud of dust and as I felt the weight of the dolly on the rope running through my hands I let it go and the kite popped out of the dolly.

I made the mistake of pinning off early, thinking I was in a thermal. I wasn't, and ended up struggling low near the hospital and was unable to make it back to the strip. I packed up and walked back to the hangar where I got Billo's truck and went back to collect my glider. Meanwhile the comp pilots where getting up and away on an out and return task. The sky was again full of clouds and pilots were getting big air.

Later in the afternoon, Billo offered me another tow. Jules suggested I use the dolly but I decided to foot launch as Billo waited in the trike up the strip. This was the wrong decision, for as I gave the signal and started to run I got a bit of cross-tailwind and I fell. My knee hit the ground hard and ripped open my jeans. I remember thinking that I was going to have to give this away as I was running out of skin. I prepared myself for a crash, but I bounced off the ground and started to go up. I was shaken and as such was unable to get on top of things. My glider was nose up and starting to lock out. Just as I reached for the release the weak link broke, and, as it happened, Billo gave me the rope. I landed and Billo gave me the job of finding the rope, which I managed to do after wandering in the sorghum for about half an hour. I asked Doggy if he had seen my tow. He said my wheels had probably saved my bacon, because they were the reason I just bounced back into the air. My wheels had well and truly paid for themselves, but I had now lost a bit of the confidence I had gained on previous tows.

Strong winds and the chance of rain greeted us at the strip the next day. There was already rain on the coast and there was a rush to get the field off early. There were

some strong gusts on the strip and the rain came through with half a dozen gliders still on the ground. For them it was a hurried walk back to the hanger and for the others it was rain and big areas of sink. It was still called as a valid round though, and Adam again did well.

After my scare the previous day I was secretly relieved that the rain came in. Billo had gone to get his wife and I hitched a ride with 'The Office' crew back into town so that I could book into the pub. Later we all met in the dining room for a meal. After a few drinks I called it a night and went up to my room. The guy in the next room snored so badly through the thin walls that I put on my headphones and edited the video footage I had till about 2:30am. It was starting to really come together. I showed the guys at breakfast, and they were impressed.

Thursday was similar with some 18kt gusts, but no rain. I think the task was to Chinchilla via Jandowae. Towards the end of the day, after I had got some more footage, I set up at the end of the line with Doggy. I launched first in the dolly and followed the Dragonfly to over 2,000ft, waiting for a signal from Smokey. Smokey had previously explained that he would only ever wave me off if I reached the end of the tow, or if I was in the best lift I was going to get. Smokey was great. If he finds lift he will turn and centre you in it. After release if he finds any lift on the way back to the strip, he will circle in it to let you know.

Eventually he waved me off and I started going up in a thermal and drifted west to the end of the strip and over the road to Jandowae. I lost the thermal just as Smokey had finished towing up Doggy and he came over and circled near me to show me the next thermal, which I found. Doggy was now in a thermal at the end of the strip but higher than I was. He headed my way and we both got up again over the cotton gin. I was at about 4,500ft agl when Doggy headed for Warra. I was too slow to keep up with him so I dribbled west. At one stage I was just floating around in zeros with a plastic bag and lots of sorghum trash.

It was so good to finally be thermalling in big air. I even had time to sip from my Camelback, but I forgot it was now inside my harness and under pressure and I failed to turn it off completely and sprayed green Staminaid everywhere.

I started to get low and saw a tractor ploughing a field. There was a wind sock in a nearby field blowing away from me, but the dust from the tractor was blowing toward me. I circled for a while and was rewarded with a punchy ride back to about 3,000ft. I then tried to fly north crosswind to the

Chinchilla road, but landed next to a homestead not far away.

Another average landing, but this time a big belly flop into a spongy, freshly ploughed field. I landed into wind, but still wasn't getting my flare right. I carried my kite to the homestead and the landowner, Marie, allowed me to ring Billo. I was only 30km west of Dalby, but I felt I had flown a hundred.

Friday, my last day. Many people had shown interest in my video, so I decided to use the morning to finish off the editing in the hanger. I tried to ignore the flying (another cracker day), but at 2pm I hit the encode button and set up the Sting. I jumped on the line behind Doggy and was the last one to launch.

It was a good tow and I released when the tug went over the falls. This time I was in a thermal. Try as I might though, I could not get up to Doggy. To make matters worse I had accidentally hit the man-overboard button on my GPS and was navigating to a waypoint called MOB, not Bell. I didn't care though, as I was getting some great thermals and was happy to land back at the strip and finish off the DVD. My landing was perfect and I nearly hit the spot. Back in the hangar I built the DVD and sold the first two I burnt.

The presentation night was at the Dog Bowl, a bowling alley. I put the DVD on the big screen and went to the back of the function room to see the reaction. Everyone was impressed, and for someone who usually does wedding videos, with very little feedback from the client, the round of applause I received at the end was very rewarding.

Rick Duncan took third place, David Seib second, and Adam Parer won. For those who stayed on after the presentations, there was some wild bowling to watch.

Dalby Big Air 2005 was a fantastic event. It was blessed with great weather, but the Dalby Hang Gliding Club have worked hard to set up some excellent facilities. Just think about it for a bit. You set your kite up on carpet out of the sun. You go outside and hook onto a tug and fly around all day in "Big Air". You land back at the strip, carry your kite back onto the carpet and grab a beer out of the fridge. I will be there next year.

I had seven tows while I was in Dalby, and one more club towing weekend should see me endorsed. Towing is not hard with good conditions. Early mornings or afternoons are best for beginners, and, if the wind is light and variable, get on the dolly.

A big thanks to all the Newcastle pilots, especially Billo, who looked after me while I was at Dalby.



Note: To get a copy of Splint's Dalby Big Air 2005 DVD see Classifieds this issue, 'General' section.

State of Origin

– ‘A HAND GLIDER PERCEPTIVE’

Al Giles

EASTER '05 AT MANILLA WAS FOUR GOOD FLYING DAYS FOR THE STATE OF ORIGIN FRIENDLY COMP. THE AREA HAD HAD NO RAIN SINCE THE STATE TITLES COMP A MONTH AGO AND WAS LOOKING DUSTY BROWN AND PARCHED.

Thursday night was the big gathering at the Royal. Seiby was in good form and showing it too; Little Jonny, fresh from setting the world hill-launched distance record off Beechmont, lobbed in later; Dunco, Mr Jones, Biggus Dickus and John Clarke from the Northern Beaches were there; from the Central Coast came Camo, Chainsaw Ray and Alfie; Ebbs, Mark Kenny and Al pulled in from Newcastle, with Selmeister and Screaming Jim coming up a day or two later. Plus there were about 100 paraglider pilots.

Fridee' was blue and blowing 15kt from the south-west; enough for easy hang gliding launches and comfortable ridge soaring, but too much for the 100-strong punter parade. Thermals were plentiful straight off launch and typically 800-up. We all headed north, except Al, who turned north-east at Tarpoly and flew to Woodsreef. Tarpoly sucked its usual share down, but those who escaped its clutches, including Ebbs and Camo, got to Cobbadah at least. Ray ridge soared for two hours before making his move. Mr Jones made Warialda and Duncan Donuts put down at Bingara racecourse, where his left No. 9 batten was still resting the next day. Jonny and Seiby flew to their declared goal of Warwick in Queensland (305km) – Seiby arrived at 7,000ft after seven hours (NSW time) in the air and reckoned there was another 50km in the day, but comms were too poor by the end of the flight to continue. This was Seiby's personal best, his previous best being 265km. Jonny arrived an hour later, confused by the problem of daylight saving conversions and flying back into his home state, where there isn't any. Kathy Kelly and Leroy drove them back down. Bad luck story of the day (and the trip) was John Clarke, who landed tailwind near Ozzie's place, broke both arms and found himself unable to reach his mobile phone or radio transmit switch. He stayed like this for half an hour, when a dust devil or wind gust flipped his glider over and in his new position he was able to ring up his mates and advise them that they might have to pack up his glider for him. Ten milligrams of morphine provided his third flight for the day, and the chopper to Armidale Hospital his fourth.

Saturdee's sky was festooned with magnificent cu's and all pilots flew to Barraba at least, though Chainsaw had to re-fly to make it (the only bomb-out of the trip). Mark and Ebbs put down around Bingara, Mark doing most of this distance under 1,000ft agl. Cameron pushed out to his furthest landing point north near Warialda, and Biggus and Mr. Jones flew to Moree. Base started at 7,500ft and went to 9,000ft asl, and the lift close to base went over 1,000-up. About this time the hangies started to notice that many of the paraglider pilots in the comp were novices at thermalling, and decided not to use them as thermal markers, although there was often a decent core somewhere in the vicinity of their gaggles. Little Jonny and Seiby flew to Goondiwindi in Queensland, and Kathy Kelly flew a personal best of 220km, just short of Goondi, taking six and a half hours to do it (would've been five and a half if she'd made it the last kilometre over the border, Queensland time that is). Seiby is a Sydney-sider, while Kathy and Leroy are Canungra locals but come from the Blue Mountains, so under the State of Origin rules NSW were looking good. Many pilots stayed up past midnight at the pub that evening and Dunco was seen sneaking back into the pub at 9am (NSW time) the next morning, still wearing the same clothes from the day before...

Sundee' morning the Easter Bunny looked just a little tired as she handed out Easter eggs (thanks, Vic). The sky was blue again, more high pressure, and after yesterday's east side launches we were back to the west side story, though team The Office had hoped for better things and set up early on the east side just in case. Do the shuffle, the Borah Shuffle... A hundred paraglider canopies filled the sky above, mostly ridge soaring, with the sharper, faster shapes of flex wings carving

about. Some headed north where Tarpoly claimed its usual tax, while some, including Ray, Dunco and Al cruised back to Manilla. Jim floated down around Godfrey's with paraglider pilots hanging off his wingtips, and Selmesy smelt beer from 6,000ft and lobbed in lakeside at Split Rock. Seiby and Jonny flew off to Uralla with Kath close behind and not quite making it, but Jonny became confused on time again as daylight savings had ended and they were still in New South Wales. The convection was only going to 6,000ft, so crossing 4,000ft high hills meant topping out and gliding with the bag open.

At the presentation in the Royal that night, every hangie got at least one prize (T-shirts, caps, wine, fuel, food vouchers, etc) as there were roughly equal numbers of prizes for the hundred paraglider pilots and the dozen hangies. Al matched up the prizes and the recipients: Little Jonny got the crate of Red Bull, Seiby the free week at the Royal, Dunco the night for two at the motel, etc. NSW won the Hang Gliding State of Origin by a carton of Tooheys to a crate of Red Bull. The weekend was notable for the good relations between the hangies and the paras – no uptightness or bad vibes other than a Pommy paraglider pilot whingeing that we'd pinched his seat at the smorgasbord (the only reason we took it was to hear him sing).

Mondee' was post-party and pre-frontal, but that meant high cloud which slowed it down. Nonetheless, the mob went up the hill and despite the cirrus in an otherwise blue sky, found good smooth lift. Mr Jones was shot down at Tarpoly, but everyone else flew to Barraba at least (where the Newcastle mob put down for the trip back to the Hunter) and Biggus and Dunco were last heard from heading for Bingara.

Four top days in late March, hard to take. Driving back to Newcastle the rain showers started at Maitland and were frequent on the coast, as they had been all weekend. Well, into each east coast easter a little rain must fall...



SPREADING MY WINGS

Chad Nowak

I WAS AT HOME, DOING THE USUAL, ONE WEEKEND LATE 2004 (TRYING TO DELAY THE INEVITABLE HOUSEHOLD CHORES) WHEN THE DOORBELL RANG. "HEY CHAD, LONG TIME NO SEE." "JACOB!! WHAT ARE YOU DOING BACK FROM KIWI LAND?" "I GOT HOMESICK, QUIT MY JOB AND MOVED BACK HOME. I WANT TO CONTINUE MY FLYING AND JOIN A GLIDING CLUB. OF ALL THE PEOPLE I KNOW I FIGURED YOU'D BE THE FIRST ONE TO WANT TO JOIN WITH ME." "HELL YES, WHEN CAN WE START? JAMES MAY ALSO BE INTERESTED SO I'LL CALL HIM TOMORROW."

Jacob, a high school buddy of mine moved to New Zealand two years ago and took a job at a composites workshop which, among other things repaired and maintained gliders. His boss also happened to be the CFI at a local gliding club and told Jacob that he would teach him to fly, basically for free!

I was repeatedly reminded of this through the flurry of emails and pictures I received from the land of the long white cloud. I was rather jealous because, you see, I've been addicted to anything that flew for as long as I can remember. My earliest recollection was when I was around six years old I went to a model plane club air show and saw a plane drop Minties onto the crowd. From that moment on I knew that aircraft were pretty cool, but it wasn't until my early teens when I moved close to Sale RAAF Base in Victoria that I became really hooked. It was at this time that I got into remote controlled aircraft and the challenge that is gliders.

I wasn't originally interested in gliders but just figured that they would be easier to learn to fly than powered aircraft. After a while I got hooked on gliders and never looked back. It was then that I came up with the saying "*gliders are easier to learn to fly than planes but harder to fly well*". When I moved up to Brisbane and became friends with Jacob I taught him to slope soar an RC glider and he became hooked too. My other friend James was someone I knew from a model glider club so, as you can guess, he was equally in love with gliding.

So there we were, the terrible trio, but with no gliders or club. However, after a bit of research, we were soon on our way to Darling Downs Soaring Club. Members greeted us with surprised faces! Three new people, three new members and three new students. My first flight was an uneasy one. Before this I had only been in a glider once

at Sale RAAF Base and the combination of gusty 20kt wind and auto-towing nearly put me right off the idea altogether. At DDSC there was no need to worry at all because I loved every second of it.

Next began the rigorous training up to going solo. I had it all planed out. "*Honey, I'm going to try to go once a week and sometimes all weekend because I don't want to forget anything. Once I've gone solo I'll back off a bit so we can spend some time together.*"

Weeks went by and I was right into the training. I was practicing approaches, wave-offs, rope breaks, stalls and spins (my first one was by accident). I have come to the decision that the instructors enjoy putting us students into stressful situations. I suppose it doesn't help that I was a 'smartie' to them on the ground. They just get revenge in the air. I remember I was flying with one of my instructors, Anthony, and he tried a low-level rope break on me. "*Oh no the rope's broken, what are you going to do? Crunch, Crunch.*" He was eating an apple at the time. I said that if he was calm enough to eat through a 300ft rope break with me then he must be pretty happy with my flying.

Finally, one Sunday in late February I herd those now famous words from my instructor, Mike. "*I'll sit this one out.*" Since then I've been collecting the best "last words" from the instructor to the student before their solo flight. A good one is "*break my glider and I'll kill you*" but my favourite is "*I don't care how you come back so long as you come back!*"

So there I was, rolling down the runway, on tow and all alone: maximum concentration and talking every manoeuvre out loud. "*Let the glider take off, follow the tug, rope break where would you land, find the runway, now where would you land, follow the tug, find the runway, look for traffic, find the runway,*

high enough now time to let the rope go, look left look right, release rope, climbing turn to the right, find the runway." WHERE'S THE RUNWAY! After a short mental breakdown I did a sharp turn to the right and saw it directly below me. "*You idiot!*" During the flight it wasn't the fact that I was still talking to Mike that freaked me out, it was the fact that in my mind Mike was talking back. For the next 15 minutes I enjoyed the calm afternoon air followed by a sweaty but uneventful landing. Upon opening the canopy Mike was there with a smile and handshake to congratulate me. Later on I admitted to Mike that I was a little nervous during my flight and to this he replied that he was nervous too because I was the first student he had sent solo, but I had survived so he figured he was doing it right. Thanks Mike.

Now that I was solo I said to my partner "*Honey, I just want to get my A certificate then I don't need check flights. Once I've got it I'll back off a bit so we can spend some time together.*" The intention was to have shorter flights so I could build them up, but I was having too much fun and before long I'd done my B and C duration flights.

The Easter competitions at Dalby were to be held soon so I decided to book a club Puchacz and instructor on the last day of competition to try this cross-country thing. When I told people this they often replied: "*A Puch?! You're brave.*" Had I made a grave mistake? After all, I had heard they had a similar glide ratio to a brick.

When the day dawned I was there early only to be told my instructor could not fly with me but not to worry, as they would find someone else. Stressed faces turned to desperate faces as person after person shook their head as I watched from a distance. I convinced myself that it was the glider not me that was prompting their response. The

very last person that could take me finally said yes, otherwise I'd be driving home.

"Chad, this is Andrew. He's not from our club and he's only 17, but he's more than qualified to take you out flying today." What? I looked closely at my situation. We'd never flown together, I'd never gone cross-country, I'd never taken off/flown/landed anywhere other than at the Darling Downs Soaring Club site, I'd never flown with more than four gliders, we had no GPS, we were told not to land out, we were told to fly the Puch back to DDSC afterwards, it was a blue day that had a 5,000ft ceiling with two-knot thermals and we were the first on the grid. *"Things look great, let's go."*

With the prevailing conditions we decided to do only one leg of the triangle and make a beeline for home. Although we didn't fly much of the course I still learnt a lot off Andrew and besides, after over two hours in the Puch our backsides needed a break.

So far I have received my A certificate and am on my way to getting my B certificate. I've soloed in the Grob 103 and flown the Astir Jeans, my first single-seater. I am also landing the Jeans on the first go, which

is good for me. In addition, I've also flown in a Duo Discus and now call Ralf, who was flying with me, *"Oh captain my captain"* when he saved us from outlanding two kilometres from the field.

Since I joined the club our President has informed me that one of my official duties is club entertainment, which I take very seriously. You can always tell the glider that I'm flying because of the "P" plate attached to the glider.

I am also trying out some new club shirts that don't seem to be catching on (see picture). One of my newest ideas is score cards to score landings, but I figure that it would be best to wait until I can land with a bit more confidence myself before I bring them out.

I sat my partner down on the weekend and said *"Honey, I just want to get my C*



The author, Chad Nowak, showing off his new club shirt

Photo: Jacob Vanderloss

certificate so I can take some friends for a flight. Once I've got it I'll back off a bit so we can spend some time together." The other day I looked at my logbook and realised that out of the 20 weeks that I've been flying gliders I've only been at home for the whole weekend for six weekends. Maybe I should actually do as I say soon.



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Darling Downs Soaring Club

Chad Nowak

I'VE ONLY BEEN A PART OF THIS VERY REWARDING PASTIME FOR A SHORT PERIOD, BUT SINCE I JOINED AT THE START OF THE YEAR I'VE REALLY LOVED THE WHOLE ASPECT OF FLYING – FROM THE FLYING ITSELF TO THE CLUB FRIENDSHIPS. EVERY MONTH I'D ENJOY READING MY COPY OF SOARING AUSTRALIA, AS IT WOULD KEEP ME OCCUPIED OVER A FORTNIGHT OR SO OF LUNCHES AT WORK WITH ITS INFORMATIVE AND, SOMETIMES, FUNNY ARTICLES.

Of all the stories I read, none were about any of the clubs in Australia. Surely there are others out there who are as thrilled about their club as much as I enjoy mine. If so I'd love to hear about them. Some say it's best to lead by example so I thought I'd write a short piece about my club of choice.

The fun factory that is my club is Darling Downs Soaring Club (DDSC). DDSC is situated about two-and-a-half hours west of Brisbane in between Dalby and Oakey. The field we fly from is maintained and owned by the club itself which I'm sure can only be claimed by a small number of other clubs.

We have approximately 150 members with a portion of them being from the Caboolture Gliding Club. Being situated where they are, cross-country is not easily possible so the two clubs have come to an agreement of shared membership. Being a fair trip from Brisbane (most of the membership is from around Brisbane) you'd think that would be a negative, but in fact it helps spawn the very social Saturday nights. Most people tend to come up for the weekend and stay Saturday night in their caravans or the club's bunkhouse, which can sleep over 20 people.

The club regularly cooks up a big barbecue dinner and we always get a great turnout. In situations like that it's great to just sit back and take in the information derived from the conversations of the more experienced pilots. For those of us who stay the night the fully fitted out kitchen, toilets, showers, lounge room, TV, stereo and magazine library come in handy. Of course, let's not forget the ever-popular bar. People are magnetised to that particular area the moment those hangar doors are closed, and one or two beers later interesting stories from the day's adventures being to unfold.

DDSC runs its own website [www.ddsc.org.au] with information about the club, stories, pictures, glider flight manuals, glider online bookings, online library, and a weather station situated at the club. Members also have access to the club chat room to find out what happened at the club, what will be happening, club competitions, pilots' achievements and just the usual banter. *CHAOTIC* is our monthly newsletter so, together with the chat room, members are kept well informed. It's a credit to those who work so hard on it.

We have a wide 1,200m runway that more than caters for the 30 or so gliders which are hangared at the club. Out of these the club owns two Puchacz', a Grob 103, an Astir Jeans, a Hornet, a Ventus and an LS7. Also available are private ships such as an Open Cirrus, a Nimbus 2c and a Duo Discus. On top of this we have our two trusty Piper

Pawnee tug planes to carry our fleet aloft each day. With the Jeans being the only single-seater I've flown so far, it's a thrilling thought for me to wonder what lies ahead.

Although not all the aircraft hangared at DDSC are available for everyone to fly, it is, for me anyway, a joy just to watch some of them take to the sky, whether it be from the ground or in the air. Ships like the Duo or the Nimbus 4 are very easy on the eye and, from the ground, the club president's ASW 27 looks like it's going at 140kt.

It's one thing to say that you have all this wonderful stuff at your disposal but as we all know it's the members that make the club. This is where DDSC really shines. The warmth and friendliness of the members really shows through, with visitors even mentioning it. On top of that everyone seems to be eager to help out in maintaining and improving the club in any way they can.



One of Darling Downs Soaring Club's many hangars



Part of the turn-out for one of the club's monthly mini-comp

Whether it is maintaining the club fleet or just cutting the runway grass there's always something to be done.

To describe the flying conditions here one word comes to mind – Excellent. Far enough inland not to be affected much by the sea-breeze we enjoy regular 10,000ft days. Being able to fly all year round helps too. We mainly fly on the weekends as well as one Friday a month. Weekday flying is also possible but a tug pilot needs to be arranged. Although I'm yet to experience cross-country by myself I'm told this place is perfect for our love of the sky.

Recently some of the members have been entering their cross-country flights into the online contest on the web and DDSC is already placed 15th in the world. Being able to outland easily is always an issue and,

being on the Darling Downs, most of the area is large cultivated paddocks so if you get low pick a 300-acre paddock and line it up. If you want something different to flat land a short trip to the north will bring you to the Bunya Mountains and a whole new set of challenges. I was once asked why I chose DDSC to fly and not a closer club and I replied, *"Because I want the best"* – and I believe I've found it.

Well, that's my club. If you're planning a holiday, or live in the area, come in and say *"Hi"* and share the sky with us. There's plenty to go around. If you like your club as much as I like mine, write about it and send it in to Soaring Australia so others can hear about it too.



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Paraglider Review:



The Mistral 3 pops up nicely on launch

CONSTRUCTION

The build quality of the Mistral 3 looks pretty good, with a lot of attention to detail. It utilises all the qualities of a modern paraglider, including full internal stitching, cross bracing, reinforced strips (only at the trailing edge though), and reinforced eyelet stitching. The traditional four risers (with split A-risers and floating C-risers) method is chosen to connect the glider to harness. Lines and risers are colour coded for easy identification. Rubber O-rings are used to minimise line slippage over triangular mallions, which is not the best method I've seen but seems to be the standard these days. A small opening on the trailing edge of the wing tips, kept closed by velcro fasteners, is very handy for removing debris trapped at the wing tips. Unfortunately the opening is only

on the very last cell on each wing, so there will still be some fiddling to get rid of debris accumulated in nearby cells, though this system is still far better than no such system.

FLIGHTS

The glider was tested at inland and coastal sites in order to get an appreciation of its performance in both environments. Inland flights took place in Bright during Easter this year, where conditions were not the smoothest (the Saturday was rough enough to advise novices to land). I experienced only some minor wing tip collapses during three days of extensive inland flying in this relatively rough air. The coastal flights took place at Eagle's Nest, a site near Inverloch, during the Anzac Day long weekend. As expected at the coast, I had nice s

Hakim Mentes

PARAGLIDER SPECIFICATIONS

Make	Swing
Model	Mistral 3
Size	Medium (26 m2)
DHV	1-2
Cells	50
Take-off weight (total)	80-105kg
Aspect ratio	5.25
Glider weight	6.8kg
Trim Speed	37km/h

SET UP FOR REVIEW FLIGHTS

Harness	Edel ProLight
Riser separation	40cm
Overall weight in flight	95kg

smooth flights in light wind conditions with no hassles.

ROUGH AIR HANDLING

The Mistral handled the rough conditions at Bright very well. Despite its DHV1-2 rating, this glider is not a bus. It is an active glider for a DHV1-2 rating and requires active control.

TURNS

The turn characteristic of the Mistral is on the ball, nothing special to report in that area. Response to control input is adequate. I experimented with the Mistral's response to weight shift while flying along the coast and response was pretty good.

CONTROL (BRAKE) LINE FORCE

Brake line force is another good characteristic of the Mistral, soft and progressive. No need to be an arm wrestler to maintain control line position. On the contrary, it may be on the soft side for novices who are upgrading from school gliders.



Colour coded risers



Trailing edge opening for debris removal



TAKE OFF AND LANDING

Nothing unusual to report here. The wing came over my head and stayed there each time I took the Mistral for a flight.

ASYMMETRIC COLLAPSE

I had plenty of opportunity to test this characteristic of the Mistral while in Bright. During the Easter Fly-in, coming down for landing was harder than staying up. When 50% asymmetric collapse was induced by pulling a full set of A-risers on one side, the Mistral displayed very good turning characteristics by changing direction less than 90 degrees. The down side was the recovery; it recovered quickly but dove to gain airspeed, which made me uncomfortable until I got used to it. That was without any pilot input to assist the recovery though, I just let the glider recover by itself.

BIG EARS

Split A-risers make life a lot easier when it is time to use big ears to reduce height. They are very easy to reach, initiate and hang on to. They pop out as soon as the lines are released, which is possibly a good thing for a DHV1-2 glider, but I prefer wingtips that stay tucked in a bit. Big ears

are quite an effective method of reducing height with this wing.

SPEED BAR

This is another element of the Mistral that gets a big thumbs up from me. The speed system is easy to initiate and maintain, no need to be a weightlifter. My old legs were not desperately shaking, even after a long period of speed system usage while crossing Tawonga Gap on the way to Mt Beauty.

It is a medium travel system, therefore two steps speed system is recommended for efficient utilisation of full range.

B-LINES STALL

The B-line stall is a very effective means of reducing height on this glider. Rate of descent was way out of my vario's 8m/s range. Initiation is not difficult, and holding it down in position is even easier. My only minor issue with initiation of a B-line stall is that the glider falls back initially, then stabilises over the pilot's head. It is also a bit hard to reach for my liking; I had to sit up to be able to reach high enough for a proper B-line stall.

To test fly a Swing glider, you can contact: Andrew Polidano <info@poliglides.com>, Mobile: 0428 666 843, Office: 02 6684 3510.

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Following Fred, somewhere near Harrietville

Photo: Meg Butler

“It’s a Girl One!”

Meg Butler

THE HUNTER SKYSAILORS, WITH JAMES AND HIS MERRY BAND OF HELPERS, HOSTED THE STATE OF ORIGIN COMPETITION, RUN OVER EASTER AGAIN THIS YEAR. WE HAD OUR WORK CUT OUT FOR US. LITTLE DID WE REALISE THE TOTAL NUMBER OF COMPETITORS WOULD BE 119 PILOTS!

After an early start, a long drive to Manilla, setting up the hall and the constant checking-in of competitors, I was exhausted by the end of Thursday night. What a job we had that night and Friday morning, sorting through the registration details and making sure that everything was correct for me to type up onto the computer!

Friday was not flyable, with strong winds from the south-west. Pilots gathered at Godfrey’s to wait it out. A ground handling competition was declared. We had to get the wing (keeping it above our heads) from the start line to where Mick was scoring. I competed against Susan, who had tall Brandon pushing her. I laughed as Darren pushed me along, my legs peddling in case I touched down. Does that count as cross-country distance? Rozenne, from France, won the girls’ comp that day when she beat Susan in her heat. Parawaiting then ensued, with football, whip cracking, chatting and a strange pushing game taught to us by Ian keeping us amused.

Next morning found us at east launch. The forecast indicated it could blow out, so I wanted to go early. I was the intermediate pilot of our team of five, meaning I would get double points per kilometre flown. I launched when pilots were getting lift and staying up, flying to a thermal just right of launch. Only trouble was, everyone wanted that same thermal. I was too low to the hill to circle and had to get away from the crowd to avoid disaster. Following the ridge north I got nothing. Off to the east bomb-out! The air was turbulent and bumpy. My wing rippled and pitched. It was scary, and my policy of not continuing to fly if I am not having fun was making me want to get out of there. Just as I was lining up for landing, a whopper of a thermal shot me skywards. Myself and other pilots tried but couldn’t stay in it. Massive sink had us landing away from the bomb-out, with a bit of a walk.

Thanks to the nice guy who helped me pack up and fight off those pesky grasshoppers, which particularly enjoyed eating my glider. I have a number of patches in my wing thanks to the voracious appetite of Manilla grasshoppers.

Sunday, last day of the competition, was forecast with light, variable winds. Most of the 119 pilots flew this day. Take-off from the west launch started and soon, like lemmings, a succession of colourful wings leapt off the hill and began circling above launch. The view was similar to the first time I had seen such a sight last year at the Manilla Open. I was reminded how spectacular it looks to a first timer by the gasps and comments of admiration from the people surrounding me. It seemed all the pilots were keen to fly except for me. I had been put off by the turbulence the day before.

My year since the last State of Origin contained some challenges, including a tree rescue after reserve deployment last April, result of a B-line stall gone wrong. My confidence returned over the year and increased greatly after a visit to Bright, hanging out with female pilots and doing a cross-country course with Fred Gungl. I did well in the course and enjoyed flying with the friendly and helpful folks down there.

I returned to compete in the Bright Open this year, nervous at first, but a few days of competition and some small personal successes helped me settle in.

One of my highlights was landing at Porepunkah Golf Course. I had never been on a golf course before. I realise that it’s generally not a good idea to land on one, with the threat of golf balls, angry golfers and all, but I reckon I picked the best landing place. There are little flags all over the place giving wind direction, long, manicured, grassy strips to line up and land on, a cool clubhouse for a cold drink and the best luxury of all, a clean bathroom to freshen up

in after a hot flight. I don’t know why more people didn’t land there? I guess they were taking the competition too seriously and decided that 6km was not a good cross-country distance. Me, I thought I had hit the jackpot!

By the next day I decided that I was doing okay in my first AAA comp. At times I actually enjoyed being in the big thermals with lots of pilots, even better, thermalling higher than some. The last day of competition saw me achieve my goal of actually getting the start gate time. I even got two turnpoints before it all went a bit nasty. The wing went berserk, a potential spin into the ground, but I sorted it and got the wing flying again. This event shook me and was just a month before the State of Origin. To say I was a bit nervous flying inland again was an understatement. My first State of Origin competition day with the turbulence had not helped me at all. I therefore declared to my team mates that I would wait and do a sleddy in the late afternoon and get bomb-out points. Shaking with nerves, I sat in the shade to watch pilots depart.

Suddenly I realised that the day was epic, with lift everywhere. I wanted to fly. I knew instantly that I could do it and felt very positive. I put the competition out of my mind and resolved to fly for the enjoyment. Just after I took off I was rocketing up above the hill, thermalling with other late launchers, getting 6.5m/sec lift. I love it when Mt Borah shrinks as you look down. This is what I fly for, the joy of being high!

Soon I was on my own. Where to go? The competitive urge hit me and I wanted to fly some distance. My GPS told me to fly east, across the Fossickers Highway. This took some resolve on my part, as it meant there would be a long walk out if I landed. I headed for a ploughed field that looked like a good thermal trigger and yes it was! Up I went. Next I flew to some small hills,



hoping there would be another thermal. No such luck. That dismal sink alarm in my ears and getting low I looked for landing options. Below was a huge farm with buildings spread out and paddocks of cattle. Judging the wind direction, I set up to land in a paddock with about 30 brown steers gathered in the middle. I was coming in on final approach and the cattle were lined up watching me with interest. They weren't going to move! They were right in the way and I was starting to assess which beast would make the softest landing if I impacted, when they parted and fled a short distance. This revealed the land was sloping upwards slightly, which I didn't expect. My landing was a bit hard and I came down on my left knee. The cattle formed a semi-circle giving scores, it seemed, on my landing technique. Temporary pain made me wait before I bundled up my wing and limped up the paddock to a huge shady tree. I was in the middle of nowhere so I would take my time packing up before my long walk out. I put the wing down. Something made me turn around and right behind me was the whole herd of bovines! They continued walking towards me and threatened to trample my wing in their curiosity. I shoed them away, this time they ran and stayed away.

A quad bike drove up when I was nearly finished packing my glider. On board were two guys and two little girls. About seven dogs raced ahead of them and fortunately weren't aggressive, wagging their tails and giving me saliva drenched sniffs. I went over to greet these folks, hoping they didn't mind that I had landed on their farm. Bob, David, his son and the girls were welcoming, and had been searching for me as the seven-year-old girl had seen me flying over. They were surprised to see a female pilot, declaring, "It's a girl one!"

I rang Annie my retrieve driver and handed my phone to farmer David. Dripping with urine thanks to the dogs' scent marking, my glider got loaded onto the bike. I hopped on the back and the five of us sped up to the farmhouse. I met the rest of the family, including Grandma, the daughter and her brand new baby, three generations. I politely declined a lunch offer but accepted a cool drink and was invited into the lounge room to chat until my lift arrived. They were very interested in the competition and the idea of Queensland versus NSW. Annie called my radio. They were very close. I handed it over for more instructions. She would not be long.

Time passed. Most of the family had left, however the lady of the house and her grand daughter (the child who had first

spotted me in the air) stayed to entertain me. Little Taylor, acting possessive and proud of her find, asked me lots of questions and fed me chocolates and Easter eggs. I felt very lucky that I'd chosen this farm to do my first 'outlanding'. But I started to realise that my retrieve was lost. I rang again, relaying directions and my GPS co-ordinates to team mate Mick who was also in the car. They couldn't miss me this time. ETA revised to 30 minutes. I settled back in my chair feeling tired and hungry and wished that I had accepted lunch. Taylor now asked me questions that she read out of a book as she had run out of her own. It turned out that I wasn't very good at general knowledge, at least not the ones she was asking me.

Finally my radio crackled into life again and Mick's voice came through loud and clear. Imagine my despair when he told me that they were running out of petrol and had to go back to Manilla? Mick then distressed me further saying after they get fuel they had to pick up James and they would try to get back to me sometime after dark or I could make my own way to town. I believed him and asked my hostess if I paid her money would she give me a lift to town? I was very embarrassed when Mick called back and revealed that he had been kidding and they were coming up the driveway. He got a kick up the bum for that one!

Many thanks and farewells later I was at last heading back to Manilla.

I flew 13km, the furthest distance of the female pilots that day. That flight and enjoyable wait for retrieve was a special experience.

So my second State of Origin ended with Presentation Night at the Royal Hotel that evening. I got bunny ears to wear (sorry Jan, should've been you for first female, on points, for the day) and won prizes, as did many. I chatted with friends I have made over my two years of paragliding, new international friends and the other female pilots, exchanging useful information and hints. The girls are supportive and encouraging of each other, as we would all like to see more female pilots enjoying the sport.

To finish, things I have learnt this year, sometimes the hard way!

If you do have a scare, make sure your following flights are easy and not too challenging, with optimal conditions. This builds up the confidence faster.

Choose when to fly and when to sit it out and know you don't have to justify your decision to anyone. Know what you are capable of and trust in your own ability.

Always remember to have fun and fly for the joy of it.



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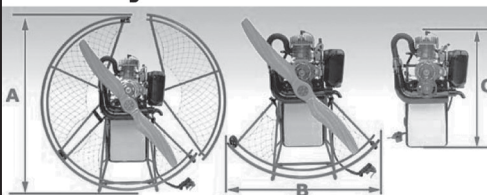
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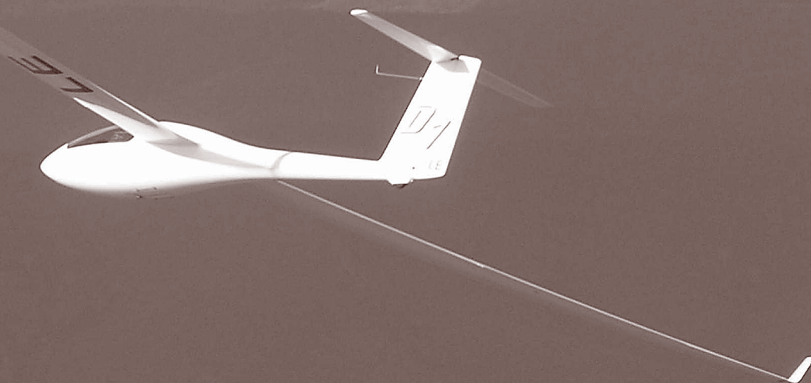
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BASIC SAILPLANE AERODYNAMICS

Colin Vassarotti

ACCORDING TO THE CONCISE OXFORD DICTIONARY AERODYNAMICS IS 'THE STUDY OF THE INTERACTION BETWEEN THE AIR AND SOLID BODIES MOVING THROUGH IT'.

Sailplanes are definitely solid objects: very solid indeed, when you consider that a typical Standard Class sailplane in flight weighs more than half a tonne. Open Class two-seaters can weigh in at 800kg. There are motor cars lighter than that! When you really think about it, flight is an amazing phenomenon. Motorless flight is even higher on the amazing scale.

On a reasonably good soaring day these aircraft will typically fly distances exceeding 500km, averaging speeds of 100km/h or more. World cross-country speed, distance and altitude sailplane records stand at 249km/h, 3,009km and 14,938m respectively. And the record book is constantly being re-written.

So how is it then that these elegant but nonetheless inert and powerless creations can 'interact with the air' to effortlessly explore and exploit the sky world?

Read on to find out; or, if you know already, to refresh your understanding of sailplane aerodynamics.

PART 1: THE FLIGHT ENVIRONMENT

1. The Nature of Air

First we need to consider a sticky subject – Air.

Air viscosity – where would we be without it? Firmly on the ground, that's where.

One of life's great good fortunes is that the air we breathe is a viscous fluid. The simple reality is that without viscosity there would be no air resistance, no lift, no drag – in fact no heavier-than-air flight at all. Even the birds and insects would be grounded.

Aerodynamics begins with the happy fact that a body moving through the atmosphere experiences a force caused by air resistance. The three major factors in air resistance are *viscosity, pressure and density*.

Like all known fluids, air is viscous which means that it offers resistance to shearing stress. *Viscosity* causes air to cling to objects passing through it. Think of a spoon moving through a honey pot. This is a good, even if exaggerated, illustration of the tendency for a viscous fluid to stick to a moving body.

Air has weight, and hence, *density*. At sea level, the weight of the air above (*pressure*), is (**missing figure?**) pounds per square inch (1,013.25 hecto Pascals). This decreases with height to 10 pounds per square inch at 10,000ft and seven pounds per square inch at 20,000ft. Being a gas, air is compressible. Consequently its density decreases with height because of the associated fall in pressure. At any given speed, the denser the air

through which an object is passing the greater will be the air resistance.

Air *viscosity, density and pressure* are key factors in sailplane aerodynamics. In combination with the enormous power of the atmosphere generated by meteorological phenomena they create a perfect environment for soaring flight.

2. The Laws of Motion

As well as air resistance, an object moving through the atmosphere, like everything else on planet Earth, is subject to Newton's *Laws of Motion*, namely:

Law 1 *A body stays at rest, or continues to move at a steady speed in a straight line, unless acted upon by an external force.*

Law 2 *The acceleration of a body is directly proportional to the force applied.*

Law 3 *To every action there is an equal and opposite reaction.*

The main point is that if all the forces acting on a body – including an aircraft – are balanced, the result is *equilibrium*: that is, "steady" motion "in a straight line", or "rest".

If all the forces are NOT balanced, the net unbalanced force produces *acceleration*. (The effect of the laws of motion on sailplanes in flight are looked at later in this series)

Left: Col Vassarotti in Delta One breaking right
Photo: Rick Agnew

PART 2: THE BASICS OF HEAVIER-THAN-AIR FLIGHT

3. The Four Forces

In straight and level flight four forces act upon an aircraft: *lift, gravity, thrust and drag*. Lift counters gravity and drag counters thrust. While all four are in balance straight and steady flight is sustained.

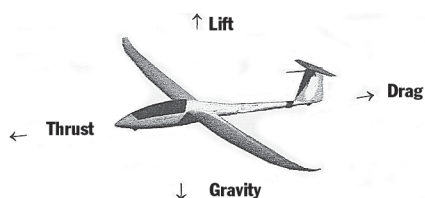


Figure 1: The four forces acting on an aircraft in level flight

Powered aircraft obtain thrust from an engine. Once a sailplane has been launched – towed, winched or even catapulted aloft – it needs to obtain thrust without the help of an engine. It does this simply by converting the potential energy it has accumulated by arriving at its starting altitude into kinetic energy as it glides downward, trading height for distance.

In soaring flight sailplanes have access to the limitless power available in the atmosphere generated by solar energy. The combination of rising air, a glider capable of sinking more slowly than the air is rising and a pilot sufficiently skilled to exploit the two satisfies the thrust requirements of gliding and, indeed, soaring flight. CE (Wally) Wallington's *"Meteorology for Glider Pilots"*, 1977 is an excellent reference for detailed information about the way sailplanes draw upon the engine room of the atmosphere.

In considering the aerodynamics of sailplanes it is reasonable to ignore the engine factor. Because the weight of the aircraft is not an aerodynamic force, we will ignore it for the present (increasing sailplane weight and wing loading with water ballast is dealt with later in this series). The primary considerations therefore are dealt with in terms of the aerodynamic forces of *LIFT and DRAG*.

Lift and Drag are so fundamental to sailplanes that their performance is generally expressed in terms of the "polar curve" – the ratio of lift to drag (L/D) of the particular aircraft when flown at different speeds.

PART 3: LIFT

4 The Wing

You could be forgiven for thinking that after more than 100 years of heavier-than-air flight and the heights of refinement attained in modern military, commercial and sport aviation, there would very little left to be July 2005

learned about how wings actually work to produce lift.

Well, if that's what you think, you would be wrong!

Conventional Wisdom

The fundamental challenge for the pioneers of heavier-than-air flight was how to overcome the weight of the object to be flown. The answer lay in using air resistance to generate a lifting force. It was well known that moving a flat plate inclined at a small angle through the air produces lift. You can see this for yourself by flicking a playing card and watching its flight path.

Plainly, this demonstrable reality needed scientific explanation. The end result is that generations of aviators over the past 100 years have been taught that the underlying physics of flight come from the fact that wings are designed to produce suction on their top surface and pressure underneath.

A fundamental assumption in this traditional teaching is that two air molecules, separated at the leading edge to travel above and below the wing respectively, will meet up again at the trailing edge. This is the so-called 'equal transit time' theory. The theory assumes that the greater curve of the wing's upper surface causes the 'upper' air molecules to travel faster because they have further to go than the 'lower' molecules. This increase in air velocity over the top surface creates

a lower pressure above the wing – in effect, a lifting force.

The basis for this belief in how wings work is Daniel Bernoulli's theorem which, simply stated is: *"as air velocity increases, pressure decreases and vice versa."*

Figure 2 reflects this longstanding view. It shows the pressure distribution around a wing.

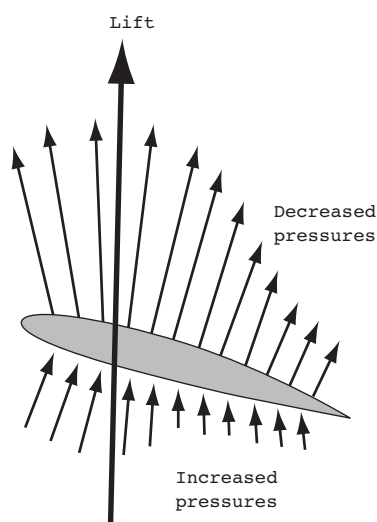


Figure 2: Distribution of pressure around an aerofoil at a low angle of attack
(Source: AC Kermode "Mechanics Of Flight")

Contemporary Thinking

In the late 1990s a new school of thought emerged. This came about because modern science has demonstrated that the suction generated by a typical wing is only a tiny fraction (between two percent and five percent) of the lift the wing actually produces.

Current thinking among aerodynamicists is that wings work because of the downward force they exert on the air. In terms of Newton's Third Law of Motion, the equal and opposite reaction to the downward force is a lifting force.

The new view is that the majority of lift results from the wing pushing air forwards and downwards. The consequent build-up of pressure below and ahead of the wing results in the wing being pushed upwards. In effect, the wing acts as a pump changing the momentum of the air by pushing it downwards and generating lift in the process. At the trailing edge of the wing, the downward diverted air forms a downwash.

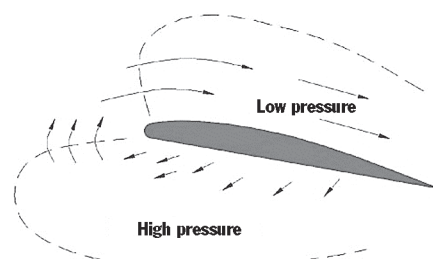


Figure 3: Pressure around an aerofoil depicting air deflection forward and downward
(Source: Long, R)

The 'pump' theory holds that as the air-flow bends up and over the wing it pulls on the air above it, accelerating that air downwards over the trailing edge. The airflow reflects an upwash at the leading edge and a downwash at the trailing edge.



Figure 4: Illustration of upwash and downwash around an aerofoil
(Source: Anderson and Eberhardt)

No less an authority than NASA debunks Bernoulli-based lift theory (incidentally, Bernoulli himself was not interested in flight: his field was fluid dynamics). NASA website [www.lerc.nasa.gov/WWW/K-12/airplane/wrong1.html] goes so far as to label the view that lift results from air molecules separated at a wing's leading edge racing over top and wing surfaces to meet up again at the trailing edge (so called "equal transit time theory"), as *"Incorrect Theory"*.

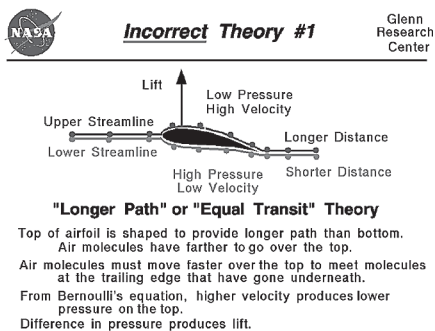


Figure 5: "Incorrect Theory" according to NASA

The "Equal Transit Time" theory can be shown as invalid by wind tunnel simulation. Figure 6 shows that smoke in a simulated wind tunnel travels over the top of a wing considerably faster than air going underneath. Air passing under the wing is, in fact, slowed down in relation to the "free stream" airflow velocity.

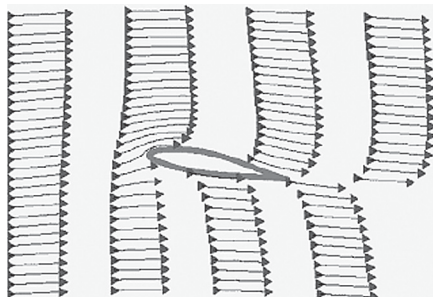


Figure 6: Simulated wing tunnel airflow showing difference in "free air stream velocity" above and below a wing at a positive angle of attack (Source: Anderson and Eberhardt)

The Coanda Effect

This "new" way of thinking about lift is not really all that new.

Back in 1930, the Romanian aerodynamicist, Henri Coanda, conducted experiments on air viscosity. He demonstrated that a moving fluid, including air, which comes in contact with a curved surface will follow that surface. The "Coanda Effect" is that a stream of air (or other fluid) emerging from a nozzle tends to follow a nearly curved or flat surface, so long as the curvature of the surface, or the angle that the surface makes with the stream is not too sharp (ie: less than the stalling angle).

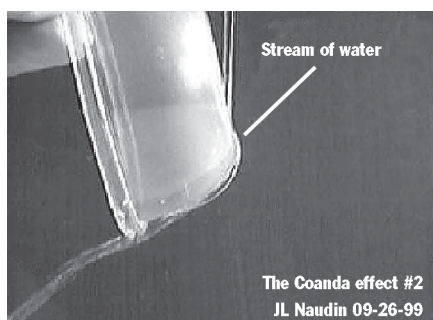


Figure 7.1: The Coanda Effect (Source: Naudin J.L., 1999)



Col Vassarotti in Delta One (Discus A) east of Bunyan, snapped by Rick Agnew flying the Canberra Gliding Club Jantar
Photo: Rick Agnew

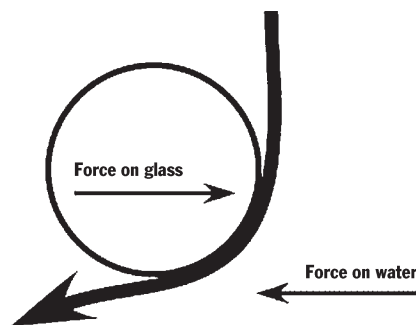


Figure 7.2: Coanda forces (Source: Anderson and Eberhardt)

Based on the "Coanda Effect" it can be seen that the downward curve on top of a wing ensures that the airflow over the wing will be deflected downwards. Newton's Third Law applies and the wing is pushed upwards by the effect of equal and opposite reaction.

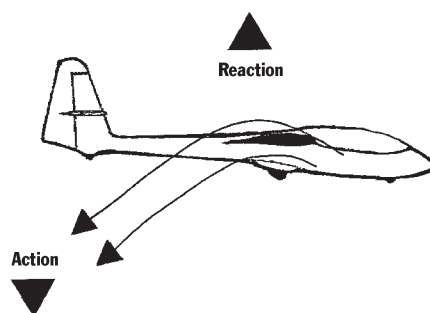


Figure 7: The wing deflects air downwards and is pushed upwards by equal and opposite reaction (Source: Davis, J. Australian Flying)

It is also fair to reason that the downward movement of air from the top of the wing creates a region of reduced pressure over the top surface.

In effect there is a combination of forces acting on the wing simultaneously to push and suck it upwards.

Still not convinced? Are you hooked on the traditional "wings suck so they fly" theory? Then think about this: Why do wings still sustain inverted flight...?

So, what *does* make a wing work?

Does it suck?

Does it pump?

Does it push?

Does it levitate by black magic?

...just kidding!

Take your pick: suck, pump or push. You'd be pretty safe in concluding that the answer lies in a combination of all three. And, no doubt, other elements are yet to be discovered in this deceptively simple science of lift.

Regardless of the various explanations, the central fact is that wings DO work. Furthermore they continue to evolve in efficiency and performance.

Other aspects of lift and wing functions of particular relevance to sailplanes, such as laminar flow, wingtip vortices and ground effect will be dealt with later in this series.

The next article in this series: Aerofoils, wings, drag.



Acknowledgments and further reading:

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MONARTO SAILPLANER'S MUSEUM

Emilis Prelgauskas

LITERALLY, BUILDING ON THE WORK DONE IN 2001 WITH THE FIRST 200M² SHED AREA DEVOTED ENTIRELY TO HOLDING, PRESERVING, AND DISPLAYING LOCAL PIECES OF GLIDING'S HISTORY, THE WORK IN 2005 EXTENDS ON THIS CORE.

A further 150m² floor area has been created as Stage 2 in this evolving project to hold further stuff, which, until now, has been crowding out the back of operational sail-plane hangars.

The Stage 1 structure had been placed within the base of an old quarry. The new Stage 2 seats alongside, on top of an adjacent sand hill. Both are independent semi-mono-



Stage 1 beyond, Stage 2 at right with docking station between

coque structural frames in curved form with a clear span of 10m.

To connect the two, a circular horizontal 'docking station', reminiscent of Skylab, contains within its 2.7m diameter both an elevated walkway and steps up to Stage 2.

The structure also responds to the local financial realities where this initiative is beyond the normal core business of this place, its owner and operators.

The original display area contains an 80-year-old bodyshift glider, a Start+Flug H-111 primary, a homebuilt Miller Tern, the factory 'Platypus' cockpit mock up, and a display wall of items including

Kookaburra control surfaces, oral history outcomes on early gliders and so on.

The 'docking station' accesses via an arch knocked through the rear wall, its curved sides contain display boxes of instruments, harnesses and gliding paraphernalia.

Stage 2 contains a Kookaburra, airframe parts for Ka6, Kookaburra, Gnome, and the display trailer with its Pik fuselage.



The view when first breaking through the rear wall, looking through the docking station towards Stage 2



Stage floor area items

Photos: Courtesy Emilis Prelgauskas

GFA News

GFA AIRWORTHINESS DIRECTIVES

GFA AD-622 (Issue 1)

Type affected: LS3 (except LS3a and LS3-17). Serial numbers 454 and 3000 up to 3338

Subject: Replacement of flap drive balance spring in fuselage near undercarriage box.

GFA AD-623 (Issue 2)

Type affected: SZD-50-3 Puchacz.

All serial numbers

Subject: Failure of pushrod end bearing in elevator circuit.

CORRECTION

Performance Week 2005 at Waikerie by Catherine Love – Soaring Australia May 2005

This article stated that "Colin Stauss, on only his third solo flight with coach Merv Lindner (both members of the Balaklava Gliding Club) flew a 240km task in the ASK21."

In fact, it was his brother, Eric Stauss, who flew with coach Merv Lindner in the ASK 21 during his memorable cross-country flight. This was Eric's third official instructional flight. Previous to this, he had gained experience and practice

during a few short cross-country flights with his father Ulrich.

Colin took part in the basic cross-country course and, with his father as coach, flew around all of the tasks. Colin improved his cross-country flying skills and Ulrich was able to work on his coaching and instructing skills. Both gained a tremendous amount of confidence in their respective fields during this week.

The photos were taken by David Conway.





When to Dare

Darren Morton

HANG GLIDER PILOTS SEEM TO LOVE STORIES ABOUT FLYING AS MUCH AS THEY ENJOY FLYING ITSELF. IN REFLECTING ON THE THOUSANDS OF STORIES I HAVE TAKEN DELIGHT IN LISTENING TO, I REALISE THAT CONSISTENTLY THEY INVOLVE AN ELEMENT OF 'DARING'. STORIES ABOUT HOW THE THERMAL WAS A BIT ROUGH SO WE PULLED THE BAR TO OUR KNEES AND GOT OUT OF THERE AS QUICKLY AS WE COULD, OR HOW THE LAUNCH WAS A BIT WINDY SO WE PACKED UP AND WENT HOME TO ROCK IN THE FETAL POSITION JUST DON'T SEEM TO CUT IT.

No doubt, hang gliding is a daring sport and anyone who achieves their licence is to be commended, but how daring should we be? At times we have all "Ummed" and "Ahhed" as to whether we should go for it or not, and so here are some personal observations I have made that might offer some guidance at such times. I write mainly for the benefit of newcomers to the sport, but it might help the 'old men of the sky' to reminisce and in doing so be a little sympathetic to the plight of fledglings.

1. *If you don't feel ready, you're probably not.*

On receiving our licences my flying buddy and I were ready for adventure. When we saw a weekend fly-in advertised we were as excited as pigs in poo. On the first morning we fronted up eager and early and then tagged along in convoy with a swag of other pilots to the site.

As I crested the hill and caught a glimpse of launch a wave of nausea swept over me. At this stage, with only a few hours to our credit, my friend and I had only launched from a 300ft coastal slope. Peering down from a 2,000ft inland launch terrified me, to say the least. Judging from my friend's pale expression and rapid breathing I guessed he felt the same. Essentially we felt completely inadequate for the task. But, 'everyone else was doin' it' and so with a brave face but sweaty palms we set up our gliders.

After watching numerous advanced pilots launch and disappear into the great blue expanse we figured it was our turn. After an inadequate hang check my friend plucked up the courage and launched. He was doing quite well until he tried to get into prone and when his arm tangled in the shoulder strap he panicked. The result was

a series of death spirals. He somehow managed to guide (?) the glider between massive eucalypts onto a spongy three metre trampoline of lantana. Amazingly he walked away without a scratch and the glider was even in working order.

A couple of hundred hours later we reminisce on that day and remark, "*We shouldn't have done that.*" Endeavour to not have that remark accompany your flying stories.

My rule of thumb is that I know I am ready for the next thing when I am looking for and wanting it. If you are boating around in smooth coastal air terrified that the glider is going to start doing its own thing and you aren't going to be able to control it, don't go inland hunting for thermals – the thermals will find you (and allude those that want them) and it will take your terror to new heights. On the other hand, if you are feeling like you belong under your colourful kite and you just can't get high enough, more than likely you are ready to step up.

I am not suggesting that we should always back down, but most of us 'know' when we are ready – others can also help you with this, although be mindful of the second point below. If you don't have that feeling of adequacy, another day will come. Go back and master the level below. You may get away with having a premature crack at the higher level, but it's not worth the risk. If you do have the feeling however, you need to go for it despite your nerves. Each time you allow nerves to get the better of you despite being adequately skilled and capable, you are slightly reduced as a pilot.

2. *Be careful who you listen to.*

Eager to clock up more hours – and a present tally of only 3.8 – I would watch the Bureau of Meteorology site on the internet like it was

my favourite TV show. One day it looked like there was a chance it might be happening, so I boycotted work and drove to my local flying site. On arrival it was blowing a gale and no one else was to be seen.

I stood on launch for a while, and then as I turned to leave a character I had never met before arrived on the scene. He greeted me and then asked if I was going to fly. I told him I was new to the game and that it seemed a bit windy, but he said it was fine and that he would help me set my glider up.

The invitation had been offered, and enthused by the thought of another entry in my log book, I was soon unstrapping my trusty Mars. My new found friend held on tight to the nose of the glider as I got in the harness and then asked, "*Where are you gonna land?*" I replied the beach below where my instructor had taught, but he suggested that landing back on top would save a carry. Unfortunately we had no radios, but he said he would guide me in with hand signals.

I somehow managed to get off level and then proceeded to climb up and slightly backwards at a rate I wasn't entirely comfortable with. With the bar stuffed against my belly – I still preferred to fly in upright at this stage – I recalled someone telling me that it was better to be on the ground wishing you were in the air than the other way around. That adage became a lot more meaningful to me at that moment.

Eventually my friend started to wave me down – which suited me just fine – and pointed me to an area that wasn't quite as lifty. Under his 'nurturing' guidance I attempted a couple of landing approaches and as I flew over he yelled, "*Okay, go for it on the next one.*" Wildly out of control I managed to do a low pass and scrape my feet over the launch. At this time my friend



decided to get physical and standing on the edge of launch he jumped at the glider and grabbed me so that I didn't overshoot. In an entirely unorthodox fashion I had done my first top landing.

In reflecting on the experience on the way home in the car it occurred to me that I had no idea who my air traffic controller was. For all I knew, he could have been some sadistic psychopath who wanted to see some carnage. It is another one of those stories I look back on and conclude, "*I shouldn't have done that.*" I was lucky – it definitely wasn't skill – to get away with it, but I learnt two valuable lessons: be careful who you listen to, and if no one else is flying a popular site there is probably good reason for it.

The same applies to taking advice from top pilots. Just because someone is an advanced pilot who can take off backwards, fly his wing upside down and is even growing a few feathers, it doesn't mean that they can offer the best advice for YOU. In fact, it is my experience that often top pilots forget what it was like to be a fledgling and so can be a little too optimistic of a new pilot's skill level.

The point is this: be careful who you listen to. Don't be too eager to listen to what you want to hear. My instructor did me a great service by pointing out pilots in our club that would offer me good advice. It is a worthwhile list to carry around in your head when starting out.

3. *Learn from mistakes, preferably someone else's.*

Several of us had already launched at one of our favourite coastal sites and were enjoying abundant lift when from the air I looked down at launch and thought, "*You're kidding!*" The site was spectacular to fly, but the launch was sensitive as it was positioned on a vacant block between two houses. The wind strength was on the upper limit for our hang gliders, and so the sight of a paraglider on launch filled me with dread.

I hovered high above launch and watched the pilot struggle in the strong conditions with the help of another individual acting as ballast. As the pilot attempted to inflate the canopy the wing rapidly heaved into the air – too rapidly it seemed for the biceps of his counterbalance buddy. Left to his own devices I watched the pilot get dragged across the ground into a retaining wall and then with the canopy gaining momentum into the side of the house on the left of launch. A plaster cast was later required.

Not long after the pilot had been carted off I thought I was seeing things when yet



Darren enjoying his C2 over the Hunter Valley (in good time)

Photo: Paul Green

another canopy was spread out on launch. There are no prizes for guessing what happened next. Predictably, the wing inflated with gusto, the ballast person let go, and just so that the house on the right did not feel left out, it too was decorated with sailcloth and pilot. It was another one of those, "*I shouldn't have done that*" moments.

The lesson is simple: learn from mistakes. Observe what others do, both good and bad, and learn from it. Remember that if nothing changes (ie: wing strength, rotor, poor launch or landing technique, etc), nothing changes (ie high chance of doing some damage).

4. *Don't be in a rush to achieve your goals.*

This sounds like odd advice, but being too eager to achieve flying goals is a hazardous but common trap many pilots fall into.

You know how it goes. You watch the advanced pilots top landing and it looks effortless. It's a no-brainer! Ignoring the fact that they have done it a zillion times and have completed all the necessary progressions, you decide to give it a go. It is right about the point where you are committed and there is no turning back that you realise that it is a bit more challenging from the air than when viewed from the ground. "*I shouldn't be doing this*", you say to yourself, and then thwack! If you are lucky it is only aluminium that breaks.

Another common scenario is the allure of a better performing wing becoming prematurely appealing. After learning on a forgiving Fun and clocking up a couple of hours on a clapped out Mars, I decided it was time to step up to a Sting. Now the

Sting is a sweet glider – I still have one for the coast – but the extra performance was a little more than I could handle at the time with my limited experience.

On my first inland flight I overshot the landing paddock, and the one after it. Luckily there was a third. On my second inland flight I overshot the landing paddock again, but this time managed to make it in to the one after (albeit having to ease the bar out to make it over a fence).

While I enjoyed setting up my Sting – which looked more sleek than my friend's Fun because it had a nose nappy! – I didn't enjoy the fact that their skill and comfort level progressed so much more quickly than mine. In reflecting on this experience I took things a lot slower moving up to a high performance glider, and when, in good time, I stepped up to a topless, it was a feeling of freedom, not fright.

The lesson I have learnt – and am still learning – is that there will always be new challenges in the sport (more so than any other sport I have been involved with). There will always be new goals to go after. Don't be in too much of a hurry to attain them. After all, the joy lies in the journey as much as the destination. I can recall deriving as much satisfaction from my first high glide as my first cross-country flight. Enjoy each progression.

Continue to extend yourself as a pilot – be purposeful about it – but don't make it a life or death struggle. If you fly safe you will have plenty of time and opportunities to test how far your wings can spread. Safe flying!



IN-FLIGHT AIRWORTHINESS

Len Diekman, Chairman, Technical Committee, Gliding Federation of Australia

WA has already used the services of Specialty Foams to supply Confor™ Foam.

Another source is Hi-Tech Foams of 3710 Air Park Road, Lincoln, NE 68524 402/470-2346 USA, phone: 0011 1 402 470 2346, email: <seatfoam@inetnebr.com>, website: [www.seatfoam.com/prod01.htm].

Confor™ Foam can be used to construct cushions with the desirable characteristics referred to at the beginning of this article; namely, comfort (pressure point reduction), it will absorb impact not rebound it ("impact safety" or low-resilience) and it resists combustions. The physical characteristics of a typical foam are listed in Table 1.

Confor™ Foam meets FAR 25.853 and FAR 24.855 burn specifications (refer to Table 1) and can be installed in certified aircraft, such as all sailplanes and powered sailplanes with a normal Certificate of Airworthiness as well those operating under a special Certificate of Airworthiness (otherwise known as an "experimental certificate").

Now for a few words about the harness itself.

Part 108 of the Civil Aviation Orders (CAOs) specifies a number of processes, procedures and specifications for the manufacture, inspection and maintenance of aeronautical equipment used in aircraft, including gliders. Interestingly, Part 108 is actually a collection of "grandfathered" Air Navigation Orders (referred to as ANOs). The ANOs are being progressively phased out and are being updated and replaced by the CAOs or, alternatively, their content is being merged into the various amendments to the Civil Aviation Regulations of 1988 (called the CARs) or the evolving Parts of Civil Aviation Safety Regulations called, you guessed it, the CASRs). Eventually, the CARs, the remaining ANOs and the CAOs will be replaced by the CASRs. The CASRs are aligned with international regulations and standards so the goal in all this aviation law reform is that, one day, all aircraft all over the world will be operated and maintained to the same standard, for better or worse (but let's not go there now!). You're no doubt aware of at least a very small part of this process in action, particularly with media coverage of the changes to Airspace Regulation and, if you own or operate a glider, by your involvement in the transition of your glider's registration

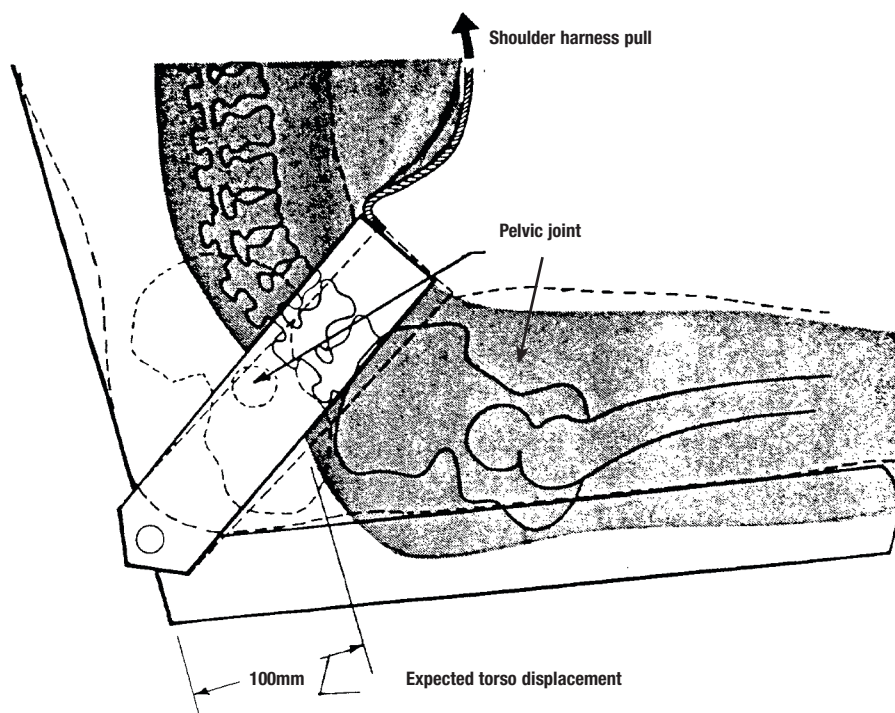


Figure 1: Submarining motion caused by inappropriate cushion construction (Figure 1.8.1 from Basic Sailplane Engineering)

to comply with the CASR Part 47 (we'll go there in a future article).

To get back to the point, CAO 108.42 deals with specifications for harness installations. It's the law and it must be obeyed, and yes, that means you, the glider pilot, maintainer and operator. CAO 108.42 states that harnesses certified by many foreign authorities (these are called "Contracting States" and include the LBA, FAA, BGA, etc) as complying with one of the following specifications are permitted for use in Australia:

- a) Safety Belt – U.S.A. Federal Aviation Administration Technical Standard Order TSO-C22;
- b) Safety Belts – British ARB/CAA Specification No. 1 (Issue 3);
- c) Safety Harness – British ARB/CAA Specification No. 4 (Issue 2);
- d) Three Point Lap-sash Safety Harness – Applicable parts of (a) or (b) above; or
- e) Inertia Reels – USA Military Specification MIL-R-8236.

The law makes provision for approval of harnesses not complying with any of these specifications if it can be shown that they provide an equivalent standard of protection for specific installations. Such approval would require compliance with CARs 21A,

35, 36, 36A to mention a few (so let's not go there either, particularly since fines are \$5,000 per transgression apply)

The additional requirements of CAO 108.42 are as follows:

- Each harness fitted must be for only one person and must be independent of any other harness fitted.
- The harness must not appreciably restrict the movement of the wearer's limbs.
- Four (or five) point harnesses must not have straps permanently connected to the thigh straps, or straps which do not immediately disconnect from the thigh straps when the harness is released.
- Three point lap-sash harnesses with a freely sliding buckle (i.e., similar to automotive seat belts) are not acceptable.
- Release mechanisms must not lock onto webbing using serrated or knurled metal parts
- Only one release mechanism is acceptable and two independent safety belt assemblies are prohibited.
- Webbing material must be made from an approved continuous filament synthetic fibre.

In addition to the CARs and CAOs, the GFA's airworthiness documentation makes a

number of requirements regarding harnesses. For all sailplanes to have a valid Certificate of Airworthiness issued after 30 August 1980, GFA's Mandatory Airworthiness Requirement (MAR) No. 1 requires harness systems to be fitted with an approved quick release mechanism unaffected by acceleration forces and with lap-strap adjusters operated by an upward pull action. The MAR also calls for all webbing to be resistant to degradation by ultra- violet light.

The European Aviation Safety Agency (EASA) publishes certification specifications for sailplane designers and manufacturers. These specifications are beyond what the pilot or inspector needs to worry about, but for completeness, here is what the EASA has to say about seats, safety harnesses and headrests from AMC 22.785(f) and AMC 22.788 of CS-22, a derivative of the old JAR 22:

- (1) *The arrangement of the safety harness installation should minimise the probability of the occupant's body from either sliding underneath the belts or sliding laterally when subjected to inertia loads acting in the forward or sideward direction, respectively.*
- (2) *For semi-reclined seating positions the anchorage points of the lap belt should be located well below and behind the H-Point at an angle between 80 ± 10 degrees to the datum line through the H-Point parallel to the longitudinal axis of the sailplane.*

The H-Point (Hip-point) is the pivot between the torso centre line and the thigh centre line of the occupant. The determination of the H-Point, or the anchorage point of the lap belt, should be made by a rational method. An acceptable means is contained in CS-22, Book 1, Appendix J.

- (3) *The anchorage points of the shoulder belts should be located below and behind the pilot's shoulders at an angle of $15^\circ + 2^\circ/-0^\circ$ to a line parallel to the longitudinal axis of the sailplane for a 50 percentile male. The lateral separation should be not more than 200mm.*

- a) *If possible, the structure of the headrest should be integrated into the backrest of each seat.*
- b) *Each headrest should be so designed that protection from injuries referred to in paragraph CS 22.788(a) is ensured for each occupant irrespective of whether or not a parachute is worn".*



CONFOR FOAM -TYPICAL PROPERTIES

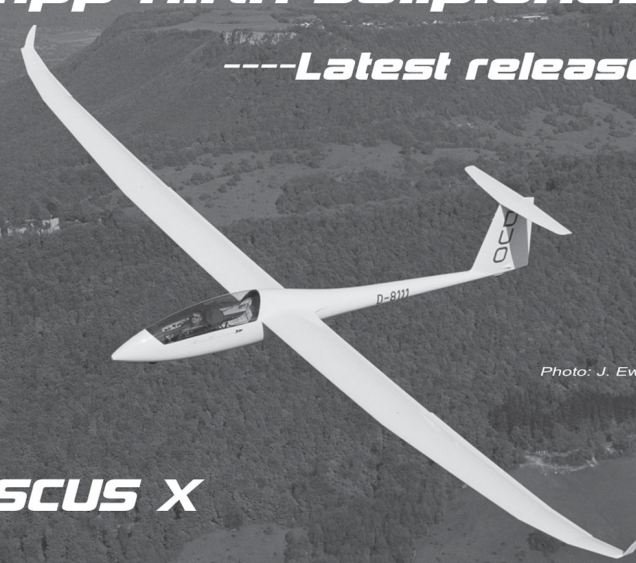
PROPERTY	TEST METHOD	CF-47 GREEN	CF-45 BLUE	CF-42 PINK	CF-40 YELLOW	CF-38 YELLOW
PHYSICAL PROPERTIES						
Density Nominal (LB/ft)	ASTM D3574	5.8	6.0	5.7	5.8	6.4
Flammability	FMVSS 302	Meets	Meets	Meets	Meets	Meets
	FAR 25.855	Meets	Meets	Meets	Meets	Meets
	FAR 25.853(b)	Meets	Meets	Meets	Meets	Meets
	UL 94 Rating (@min 0.25in)	Listed HBF	Listed HBF	Listed HBF	Listed HBF	Listed HBF
Dielectric Strength	ASTM D149 (V/mil)	27	27	27	27	27
Ball Rebound	ASTM D3574 (% Rebound)	2.8	2.4	1.0	0.9	
Thermal Conductivity, K	ASTM C177 BTU-in/hr-ft ² -°F	0.28	0.28	0.28	0.28	0.28
Volume Resistivity	ASTM D257, (Ohms-cm)	1.6 x 10 ¹³	1.6 x 10 ¹³	1.6 x 10 ¹³	1.6 x 10 ¹³	1.6 x 10 ¹³
Impact Absorption	ASTM F355 Modified 11lb missile, 3.4m/sec, 24in drop, G max	70	58	58	75	165
HARdness	ASTM D2240, Shore 00 15sec impact:					
	4C	91	86	83	79	74
	10C	88	80	77	70	60
	16C	71	46	21		
	21C	20	8	4		
	27C	12	5	2		
	32C	10	4			
	38C	8	4			

Table 1: AeroE-A-R Specialty Composites Technical Data Sheet TDS-13, FAR 25.853 and FAR 25.855 specifications for burn testing

Note: The data listed in this data sheet are typical or average values based on tests conducted by independent laboratories or by the manufacturer. They are indicative only of the results obtained in such tests and should not be considered as guaranteed maximums or minimums. Materials must be tested under actual service to determine their suitability for a particular purpose.

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Photo: J. Ewald

Part One:

...SAFETY IN THE COCKPIT, CUSHIONS AND HARNESSES

This first part in a series of articles concentrating on airworthiness related in-flight safety issues takes a look at the role of the humble seat cushion and its indispensable partner, the harness. The issues discussed are pertinent to sailplanes maintainers and safety-conscious pilots.

If you think that seat cushions do not involve important airworthiness and safety issues then think again, because a "good" seat cushion may one day save you from serious injury in a heavy landing and a "bad" one may lead to more than just uncomfortable flying on those long cross-country flights. Let's first look at what a seat cushion should do.

Firstly, and not surprisingly, a seat cushion should provide comfort for the duration of a flight of several hours. Poorly designed cushions that create discomfort or that allow pressure points to bear on the occupant's body accelerate the onset of physi-

cal and mental fatigue during long flights. This results in reducing pilot performance and impaired decision-making capability.

Secondly, the seat cushion should absorb impact, rather than rebound it, in the event of a heavy landing, or more critically, in a crash scenario.

Thirdly, a seat cushion should not be highly compressible under normal flight-loads. Cushions that compress to a small percentage of their normal unloaded volume are hazardous during winch launches, turbulence and high-G manoeuvres. When such a cushion is loaded by the seat occupant's body under the acceleration of high-G loads the harness can be ineffective and the occupant may be displaced to adverse seat positions.

Fourthly, of relevance to powered sailplanes, cushions should be resistant to combustion.

The cushions used with the harness have a large influence on the safety performance of the harness. The cushions and the harness are best thought of as one integral system, the cushion-harness system, if you like. A well designed harness installation performs badly when coupled with a poorly designed or installed cushion and vice versa. Performance of the cushion under load is an important physical characteristic for optimum safety outcomes. Excessively soft cushions are compressed under acceleration. As the foam is compressed the webbing restraining the occupant loosens and the occupant's body moves under the harness in a motion called "submarining". When in-flight load is removed, the cushion rebounds and there is potential for injury to

the pilot's body, particularly the spine. This scenario is shown in Figure 1.

Submarining can be minimised by using energy absorbing, non re-bouncing foams in seat cushions. Research in association with the BGA, OSTIV and others indicates that significant reductions in spinal G-loading to the seat occupant's spine, one of the more vulnerable and critically affected parts of the body in crash scenarios, result from use of hard grade, low-resilience foam. The spine is subjected to increased G exposure when soft foam is used, even when compared to a bare seat scenario. The optimal cushion construction was found to be 25mm of hard grade, low resilience foam with 12mm of medium grade low resilience foam for comfort. The medium foam is placed above the hard foam and the sandwich is upholstered UV light protection and wear and tear. The total uncompressed thickness of the cushion should not exceed 40mm to minimise the slack in the harness induced by in-flight loads to prevent submarining. The renowned aviation medico and glider pilot, Dr Tony Segal, has published many excellent articles and papers on crashworthiness which are well worth reading for any pilot (refer to Gliding and Motorgliding International).

A dark foam brand named Dynafoam used to be extensively available for aviation cushion construction, particularly for pilots over a hot-seat. Another, more modern product called *Confor™* Foam has been available for some years now. *Confor™* Foam is manufactured by *AeroE-A-R Specialty Composites*. It is available from a number of sources. One source in Australia is Phil Gorman of Specialty Foams Australia at 119 Nicolas Drive, Casuarina WA 6167, phone: 08 9419 4004, fax 08 9419 7317 or email: <hillipgorman@bigpond.com.au>. Specialty foams will either cut foam to length from supplied measurements or will measure a seat cushion supplied to the factory and cut the foam to fit. Beverly Soaring Club in

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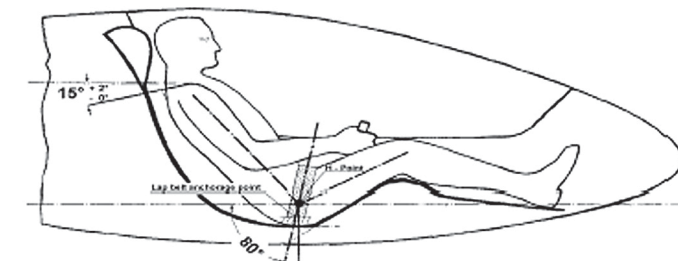


Figure 2: From CS-22 (refer to extract above)

Soaring Horoscopes for Glider Pilots

'Ian Yabriems'

ARIES

This is not the right day to go charging around the sky on a whim and a prayer. It's definitely not a day to lock horns with the big guns in one-on-one competition! Prior planning prevents poor performance (perhaps) – so careful task selection should be rewarded. At all costs, remember to leave your car keys on the ground. Not many mysteries need unlocking in distant paddocks.

TAURUS

Is the Taurus pilot tired of being corralled, confined and left to graze with mere mortals? Today is the day to break free, to stretch those legs and charge far beyond familiar paddocks. Follow the stock routes north and you will probably be rewarded, re-branded as a hot prospect. A big task? No! A huge task will be on! Carry a spare ICOM battery for that late, long final glide...

GEMINI

Are you in two minds about task selection again? On the one hand, should the Gemini pilot fly upwind early? On the other hand, should Gemini head downwind and follow the ranges? Neither! Don't prevaricate! Don't gaggle either. Just go crosswind and follow your nose. And top up your car with petrol... either unleaded or premium unleaded will do the job.

CANCER

Your tenacity pays off today if you are prepared to scuttle at speed over sandy country. Forging across waterways should present no problem either. No need to worry about the rest of the crowd – let them float off. Today is the day to strike out alone. Who cares if you are outside phone coverage areas? Who cares if you have to dash sideways or change course? Who cares if others try to follow? Go far, go fast!

LEO

As the cartoon avian Tweety says, "I tawt I taw a puddy tat!" The Leo pilot might pretend to be rough and tough, leading the kingdom of aviators, but appearances can be deceiving! Once airborne today, Leos will be happy, contented, lazy kittens, content to play around in the sun, enjoying their toys, observing their domain. Their preening and purring will be obvious to all when the sun sets and dinner is served.

VIRGO

This will be a great day for the uninitiated, first cross-country Virgo pilot! An unforgettable adventure awaits you. More experienced Virgos should just get high and have fun, frolic and gyrate to their hearts content. Not so much a day for grinding along low, more a day for the celebration of the best life has to offer. Everything you touch will be just great! Make the most of it while you can.

LIBRA

So much to weigh up! Today's Libran aviator will need to balance many competing demands. Long tasks will see many difficult choices, as conditions swing in your favour, then against. Have you had much practice with long low final glides? With low loss flying? How often does the wind aloft differ from the wind down low? Think about these questions early, as you will need to make balanced decisions later.

SCORPIO

Scorpio pilots may get in a real twist today, with low scrapes from rocky ground a distinct possibility. Lift over them there hills? Be careful! Unpredictable or predatory conditions abound today. Such is the nature of soaring flight. You are not the only thing with a sting in the tail! Nature, weather and terrain may combine to bring you to ground. At least you will get to make new friends.

SAGITTARIUS

The Sagittarian pilot is sometimes an impetuous creature. A downwind dash? It may be the right task choice for you, but only if your crew is on side. A well-informed, well-fed, well-watered crew is a happy crew. And vice versa – so stay on target with your crew's needs. Solo Sagittarians might pack a sleeping bag and head for a distant club for an over-nighter. Don't forget the wallet. Water-holes beckon.

CAPRICORN

So who has been a big kid lately, playing with friends all day and then staying up late? Today, your recent game play is amply rewarded. Capricorn's superior piloting and navigation skills are needed – on the ground. So many retrieves, so little time! Alternatively, think of a word, beginning with M, 11 letters, three syllables – that's right – maintenance! Good kids who invest in this will be rewarded later.

AQUARIUS

Do not be over-optimistic and carry too much water with you today. We know the Aquarian aviator likes to hang onto the liquid stuff and go fast and hard, but today is definitely a day for strolling along drier inland paths. It's not a good time to play near shores, cliff-tops or waves, nor inland lakes. Glittering blue ponds and green swamps will suck the life out of the air, so stay away. Is your car a four wheel drive?

PISCES

Today will be a day of discovery. You will discover new lands to explore, close up. By that, I mean real close! Bring a spare water supply, as you'll need it! Your fellow pilots will discover new limits to friendship, as mysterious games of hide and seek even-tuate. Are your keys hidden in your swimmers or under your towel? Pisceans should be prepared for outlandings. If you must go, swim upstream, upwind.

YOUR BIRTHDAY – THE YEAR AHEAD

You must have been kissed by the leprechauns! This is your great soaring year! Go on, buy that new datalogger and those expensive sunglasses, as you will need them. Unexpected pleasures await you – so your task planning must always include multiple turnpoints and nested triangles. When you least expect it, fantastic cloud streets will form near your farthest turnpoint and lead you to incredible speeds and distances. Bring a tube of sunscreen aloft to protect your face during awesome final glides. Savour the tang of dry oxygen as you soar above fantastic clouds in smooth, silky wave lift. Place a case of champagne in the cellar, buy the best possible drop on special as you will soon savour the pleasures of accomplishment and happy reflection. Confidence, positive thinking and planning is everything. Fly safe, have fun, and happy landings!



Note: Ian Yabriems is a nom-de-plume, born out of the mischievous mind of a soaring pilot who does not care a rats for anything to do with Astrology. He derives occasional amusement from word-play and coincidental connections. Although born a Virgo, he appears to be opposite their typecast characteristics. He revels in unpredictable deeds and obtuse thought patterns. He has enjoyed messing with your minds, and hopes you have enjoyed these "horoscopes". He wishes you safe and happy soaring, always.





Aaron Stroop in Nimbus 2, GEL, flying near Bathurst. This shot was taken from the BATHurst Soaring Club syndicate Slingsby T21, an open cockpit glider with side-by-side seating and no perspex canopy.

Photo: Peter Newcomb

DIFFERENT AIRCRAFT, SAME AIR

– Sailplanes, Hang Gliders, Powered Planes

Paul Marchant



Hang glider pilot on dolly, ready to be launched by the Dragonfly

Is it possible for users of the same air to mix safely? A question sometimes answered before thinking, common answers to this question often revealing more about the long held and sometimes inappropriate bias of each of the participants, rather than any rational or reasonable thinking. Or, to be a little more generous, maybe some commonly held opinions just reflect an ignorance and lack of informed debate on the part of the participants. Ever since I've had the privilege of flying I have always been dismayed over

the fruitless distinctions that various participants of our sport display. A pecking order may be necessary in our workplaces, but in our common passion for flying?

At Tocumwal Aerodrome, which is huge, we have very impressive sailplane operations with a constant stream of overseas pilots as well as local. There is a flying school for powered planes. The airport is also used by travelling pilots. Tocumwal has a great potential for cross-country flying, with records being flown from there. Licensed

instructors in each discipline plus operations management gives a very high level of competence.

So how did a dozen hang gliders being aero towed by a Dragonfly fit in with all this? After 10 days of no incidents or conflicts, very well.

There are restrictions to separate the take off and landing requirements of each craft, which I found quite simple. A queueing procedure for take off, height restrictions over runways, correct aircraft approaches for landing. The hang gliders were given a big area for losing height in a disciplined manner if we wished to land back at the airport. Because of the huge size and multiple runways, separation was easy for landings.

After a recent trip to Sportavia, Tocumwal, I am convinced that with just a little common sense and cooperation not only can different users of the air coexist but it can positively enhance the enjoyment of all.

We recently had a hang glider fly 330km in February '05, in a general period of poor thermal conditions, which one experienced local instructor described as the worst thermal conditions he had witnessed in 30 years. What would that 330km have been in normal conditions?

My best memories were the interactions between the disciplines: learning from a four



Sailplane on tow



Photos: Paul Marchant

The tow from a hang glider pilot's perspective

times World Champion sailplane pilot and other instructors on thermal theory and meteorology; sailplane pilots enjoying the exuberance of the hang glider pilots; seeing brand new unflown Hawker Hunter Jets in massive old hangars, learning about the history of this amazing Wartime Liberator train-

ing aerodrome from passionate local historians; mixing and making friends with international pilots; enjoying flying in civilised and friendly surroundings; flying over the country in a powered plane. A great cross-pollination of disciplines and ideas, all enjoying our common passion, flying.

We had had hang glider pilots learning to fly sailplanes, sailplane pilots wishing to learn hang gliding, both flying powered planes. I am convinced that this is the future direction of our sport, to the benefit of all.



The Dragonfly coming in to land



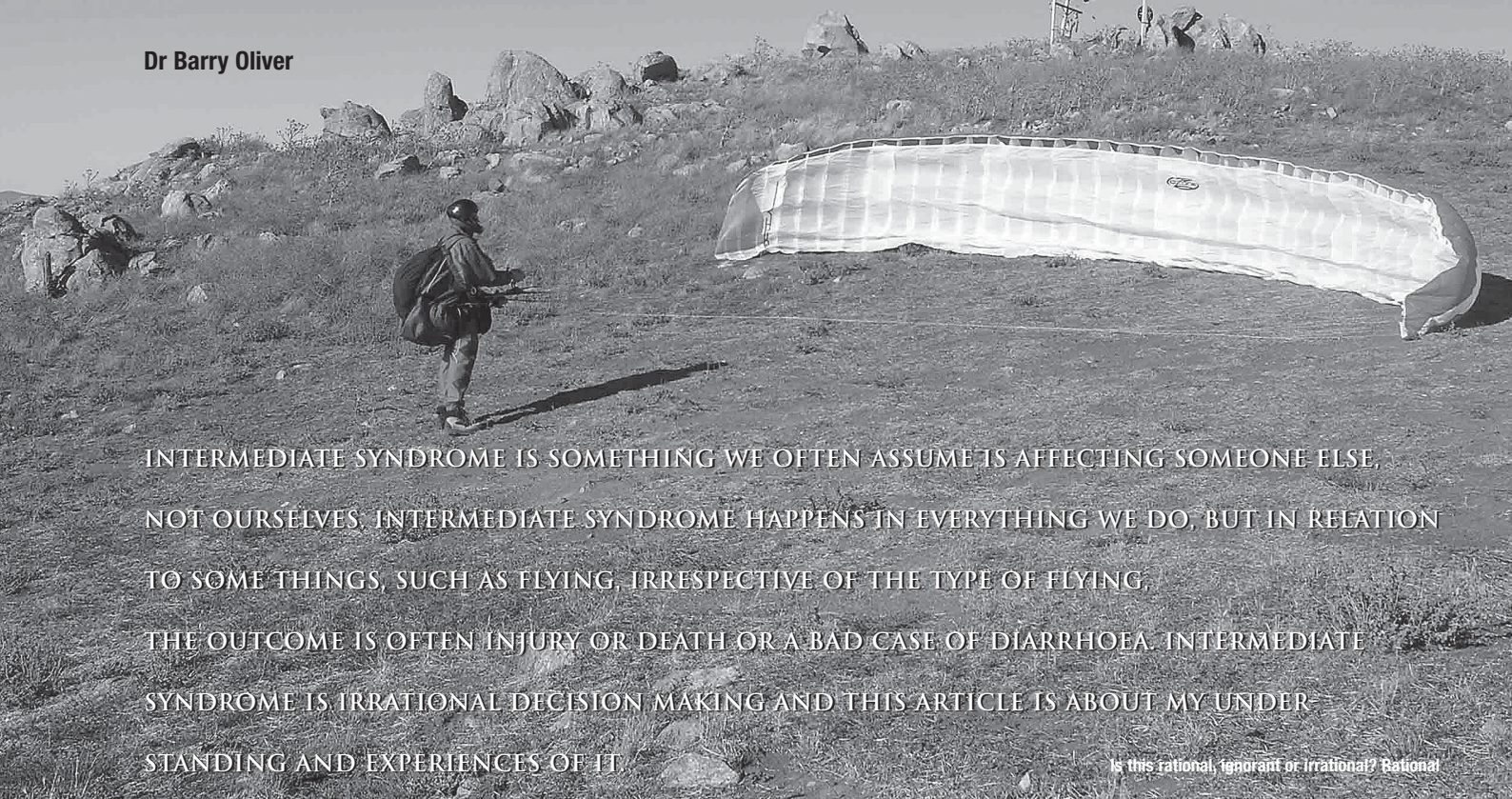
GA pilots were part of the flying activities too



THE DEVIL MADE ME DO IT

– Intermediate Syndrome

Dr Barry Oliver



INTERMEDIATE SYNDROME IS SOMETHING WE OFTEN ASSUME IS AFFECTING SOMEONE ELSE, NOT OURSELVES. INTERMEDIATE SYNDROME HAPPENS IN EVERYTHING WE DO, BUT IN RELATION TO SOME THINGS, SUCH AS FLYING, IRRESPECTIVE OF THE TYPE OF FLYING. THE OUTCOME IS OFTEN INJURY OR DEATH OR A BAD CASE OF DIARRHOEA. INTERMEDIATE SYNDROME IS IRRATIONAL DECISION MAKING AND THIS ARTICLE IS ABOUT MY UNDERSTANDING AND EXPERIENCES OF IT.

Is this rational, ignorant or irrational? Rational

Intermediate syndrome is not a medically defined complaint. It is a common problem of making decisions based on emotion when the objective evidence is inconsistent with those decisions, but we reject that objective evidence. One way to think about it is to put decisions about flying on a scale from rational at one end to irrational at the other. In the middle of the scale are ignorant decisions. So to help differentiate decisions divide them into three types:

- *Rational decisions*
- *Ignorant decisions*
- *Irrational decisions*

Rational decisions are made when we obtain all the necessary objective evidence and make decisions consistent with that evidence. The objective evidence supports our decision. For example, in picture 1 the wind is coming up the face, the pilot has a well-formed wall and is ready to launch (assume all other pre-flight checks have been done and all is well). It is rational to launch.

Of course, sometimes things do go wrong. For example, the pilot may launch, fly out from the hill and get attacked by an eagle. Paragliding, hang gliding and gliding (and everything else we do) are not risk free and sometimes bad things happen. If we

make rational decisions based on objective evidence following all the appropriate guidelines, then at least the risks are minimised.

The second type of decision is the ignorant decision. People that make decisions through ignorance are, well, just plain ignorant. They make decisions without knowing how to use the objective evidence. For example, in Picture 2 (opposite page) the pilot is trying to launch when the wind is blowing in the wrong direction. The pilot is ignorant as to how a paraglider works. In some cases ignorance can be very costly to life and limb. The risks are not only not minimised, they aren't even recognised. Imagine if in Picture 2 it was a cliff launch, and the pilot jumped off without the glider inflated.

Ignorant decision makers are candidates for the Darwin Award (the Darwin Awards salute the improvement of the human genome by honouring those who accidentally kill themselves in really stupid ways: [www.darwinawards.com/]).

The final type of decision is the irrational decision. People that make irrational decisions have the objective evidence and that evidence is telling them not to make the decision, but they ignore it. These people are most likely suffering intermediate syndrome.

Their decisions are irrational and are driven by emotion.

In Picture 3 (over page) the pilot is ground handling without being in a harness, without a helmet and on launch. It wouldn't take much of a gust to lift the pilot into the air. It's nearly impossible to hold on for very long. A fall from a few metres is sufficient to break or damage your back. Thankfully, I was lucky and a gust didn't come along. I learnt about intermediate syndrome after this photo was taken, and after I hadn't been so lucky, which I shall talk about a little later. Even so, at the time I knew it was wrong to kite my wing in such a way. It was irrational to do so.

Intermediate syndrome arises when we believe we are capable of doing something even though the objective evidence indicates that we aren't or that it is unsafe. We make decisions based on emotional factors and reject the objective evidence. We are aware that it isn't safe or unlikely to be successful, but the objective evidence is ignored and other factors dominate our decisionmaking. These 'other' factors, sometimes subconscious, can range from adrenaline needs, wanting to be a show-off, wanting to prove that the universe and laws of physics are



wrong, to having the attitude of 'she'll be right mate'. These 'other' factors can be regarded as emotional factors.

Trying to determine if a decision is ignorant or irrational is sometimes difficult because it comes down to knowing what the person was thinking at the time the decision was made. Ground-handling a paraglider without being in your harness is an example. This is an ignorant decision if you don't realise how quickly the wind can lift you up and that it is nearly impossible to hold on. It is irrational if you do know the danger and you still choose to do it.

In flying, particularly in my experience of paragliding, probably in the other disciplines too, intermediate syndrome seems to happen more commonly in people who have become reasonably proficient, those with intermediate skills, those that aren't ignorant. However, the influence of intermediate syndrome is not necessarily governed by level of skill or pilot airtime, but also by attitude. Pilot age may also be important. Younger pilots may be more susceptible, as emotions may be more influential in their decision-making. Generally, as people get older the influence of the 'other' factors wane, but

some people never get older! I expect that males are more likely sufferers than females.

However, pilots with around 25 hours of airtime seem most prone, hence intermediate syndrome, but it can happen to anyone of any level of expertise or age.

Intermediate syndrome is seductive. It's like the devil, always trying to seduce you. A few simple examples from my own experience may show how easy it is to be seduced by the syndrome and pay the price.

After many hours of ground handling practice I was very confident kiting in stronger conditions. One day, around midday, I decided to go ground handling. It was in the middle of summer and inland, and I can remember thinking at the time that it was unsafe to ground handle in the middle of a summer day, particularly on this day due to the strong thermic conditions.

However, intermediate syndrome was invading my psyche. It blanked out my rational thinking. In the paddock, the objective evidence was everywhere, the universe was telling me something and that something was to not even try to ground handle at this time of day, in these conditions!

The cycles were strong and the temperature was high. Unfortunately my brain was overwhelmed with intermediate syndrome. The devil had taken hold. I lifted the glider up and a strong cycle hit, the wing promptly lifted me straight off the ground, I swung around in the harness, blew backwards, stalled the glider and as I hit the ground I heard the ligaments in my knee popping from their cosy connections.

I lay on the ground in the scorching heat and dust, the air around me unusually calm. The thermal that had just picked me up and spat me back down had passed.

Lying on the hot ground alone with badly torn ligaments in my knee gave me ample time to think of why I had contemplated ground handling alone, in strong thermic conditions in the middle of the day. It was while in this situation that my mind finally listened to the universe. Unfortunately, it was then saying to me, *'Idiot, I told you not to ground handle in such conditions!'*

The evidence was there, the hard objective evidence, but for some reason I ignored it. And how lucky I was not to have been more severely injured. Devil: 1, Me: Nil.



Picture 2: Is this rational, ignorant or irrational? Ignorant



Picture 3: Is this rational, ignorant or irrational? Irrational (please do not attempt to do this)

The weeks afterward gave me ample time to think more about intermediate syndrome and how it affects us. Unfortunately, being a slow learner I was affected a second time. The second time was on launch at a local paragliding/hang gliding site.

The morning began with a regular assessment of conditions, the evidence pointed to increasing wind strength. It had gone from around 6mph to 13mph over a few hours. I headed to the launch site and conditions continued to become stronger. At launch there were about five paragliders in the air, they had taken off in the earlier weaker conditions. I sensed that it wouldn't be long before conditions were going to be really blown out.

By the time I was ready to launch the wind was 18mph gusting to over 24mph. It was already too strong for me. I knew my glider couldn't handle these stronger winds, and the evidence had been pointing to increasing wind all morning, and that it wasn't going to get lighter, at least not for some time. I was on launch and I was cocky with intermediate syndrome. The universe was saying, *'Don't launch you nutcase, it is way too strong!'* The devil was saying, *'Ha, you'll piss it in, look at all your mates up there having a good time, go for it!'*

Unfortunately I listened to the devil, he made it sound as if it was perfect. Something

inside me knew it wasn't, but I lifted the glider up and it lifted me up, spun me around and promptly blew me backwards onto the ground and dragged me up the launch. Two broken ribs and the associated torn muscles for my trouble, and again a few weeks to contemplate my decision-making skills, or lack thereof!

It was obvious the conditions were too strong. I knew my glider and I struggled in such conditions. So why did I try to launch? I was cocky enough to think that even when the conditions were unsuitable I was capable of handling them. I knew better, but intermediate syndrome overrode all the objective evidence that was in front of me. I wanted to show I could beat the universe. The devil made me do it! Unfortunately, I was the one with the broken ribs. Devil: 2, Me: Nil.

Since then I have begun to piece together incidents I have seen with other pilots that could be explained by intermediate syndrome. One example was my flying buddy, Ruth. Ruth had over 60 hours of paragliding experience. One day she was doing paragliding wingovers too close to the ground. If a wing stalls it's easy to lose a lot of height before it recovers; she knew that, everyone knew that. The wing did stall and believe it or not she did lose a lot of height. Well, she didn't really lose that much because the ground stopped her falling further. She lived, but will probably never recover completely. Broken vertebrae never fully mend, not to mention a broken pelvis.

So why did she do wingovers so close to the hill? Most likely the truth will never be known, because she can't really remember what happened or what she was thinking, but more than likely intermediate syndrome was a significant contributor. She knew it was unsafe but something in her mind overrode the objective evidence. The universe was telling her it was unsafe but she refused to listen. Given her knowledge and experience it's unlikely it was ignorance. More than likely she was suffering intermediate syndrome. Maybe she wanted to show the others how daring she was?

Her decision to do wingovers so close to the hill was driven by emotional evidence not objective evidence. Unfortunately, we don't always have the emotional evidence to consider as the devil takes it with him after he does his work. This is especially the case if it results in major trauma or injury. The devil wipes our memory when he does a really good job.

In an issue of Soaring Australia last year I read of an incident regarding a pilot with over 200 hours flying time, crashing into water and nearly drowning. Comments from the pilot about the incident included a classic line suggesting that he (assuming the person was male) was suffering intermediate syndrome: *"If things are not going right on launch or it's getting all too hard to get in the air then follow what the universe is trying to tell you; either don't go, wait a while and sit it out, or fly very safely"* (Soaring Australia, December 2004, page 41).

So why did he take off? The objective evidence was telling him not to launch, but it was rejected. Maybe the devil was sniffing for some action.

I'm sure you have seen and probably experienced intermediate syndrome, it's a strange beast and can rear its ugly head irrespective of your experience or age. If you don't think it's affecting you, then it probably is, and if you think it is, then it probably isn't. So how do we beat it? Being aware of its presence is the best way to beat it. Make your decisions on the objective evidence rather than emotion. Know that your emotions will sometimes push you to make irrational decisions. Look at what the universe is trying to tell you, as it isn't governed by your emotions. The laws of physics are pretty robust. If the objective evidence says 'don't do it', take heed. Flying tomorrow is always a better option than thinking about it from a hospital bed.



HGFA Editor's Choice

Thanks to all those who sent in technical articles for this month's \$100 prize. I've saved a couple of them for the next issue or two, but the pick of the lot, extremely well written and relevant to all readers of this magazine, was Darren Morton's 'When to Dare'.

Congratulations Darren, winner of the last of the twelve hundred gold coins put up by the HGFA Board for best monthly article (see *HGFA Editor's Choice*, August '04).

But don't stop sending in articles! No, please don't.

I'm not sure if the HGFA Board has anything else in mind, but until I hear from them, you can count on me, your humble sub-editor, to keep the prizes coming!

You don't have to do that, I hear you say. We are happy to support the magazine with articles, for the simple enjoyment and edification it brings us and our flying mates. You don't have to bribe us.

That's good to hear, thank you. But just to be on the safe side, the author of the best article submitted for the September issue (deadline 25 July) can have... ahh... my 1998 Corryong Cup T-shirt. It's a bit loose around the collar, I'll grant you, but highly prized for its sentimental value and years of good wear... The shirt off my back – the least I can do to keep the great standard of articles rolling in...

Richard Lockhart, HGFA sub-editor <soaring.australia@hgfa.asn.au>

CLUB NEWS

WA Trike Meeting

Chris Fogg will be meeting with WA trike members for an informal meeting at 1426 (also known as Lot 108) Pinjarra Rd, Ravenswood, the residence of Kathy Little (board member). Meeting to be held Friday evening, 1 July. Those wanting to attend please contact Kathy on 0438 054072 or 9537 6204 or <kiwikathy@bigpond.com>. There will also be a BBQ tea, BYO.

FAI NEWS

World Pilot Ranking Scheme

On 1 May CIVL moved to the new ranking system for PG as well as HG. Competitions are no longer deleted after 18 months, but gradually devalue over three years. There are bound to be changes to pilots' details, please check your rankings and email changes to <paula@fai.org>. Updates will continue to be made close to the beginning of the month, but the ladder is calculated every three months to even out the effect of the Northern and Southern hemisphere seasons. The formulas and more details will be available soon.

PARAGLIDING

- 1 Jin Oh Kim (KOR)
- 2 David Ohlidal (CZE)
- =3 Nikolay Shorokhov (RUS)/Bruce Goldsmith (GBR)
- 5 Christian Biasi (ITA)
- 6 Xevi Bonet Dalmau (ESP)
- =7 Christian Maurer (SUI)/Alexander Schalber (AUT)/Torsten Siegel (GER)
- 10 Achim Joos (GER)

In the nations rankings Germany has a bit of a lead from Czech Republic, closely followed by Switzerland, Australia and Italy.

HANG GLIDING (CLASS 1)

- 1 Oleg Bondarchuk (UKR)
- 2 Mario Alonzi (FRA)
- 3 Gerolf Heinrichs (AUT)
- 4 Johnny Durand Jnr (AUS)
- 5 Brett Hazlett (CAN)
- 6 Craig Coomber (AUS)
- 7 Attila Bertok (HUN)
- 8 Antoine Boisselier (FRA)
- 9 Oliver Barthelmes (GER)
- 10 Steve Moyes (AUS)

The nations rankings show France in top place, Australia moves up to 2nd, followed by Austria, Germany and USA.

CLASS 5

- 1 Alex Ploner (ITA)
- 2 Christian Ciech (ITA)
- 3 David Chaumet (FRA)
- 4 Ralf Miederhoff (GER)
- 5 Toni Raumauf (AUT)

In the nations ranking there is quite a separation between Italy, Austria and Germany that make up the top 3.

CLASS 2

- 1 Brian Porter (USA)
- 2 Mark Mullholland (USA)
- 3 Manfred Ruhmer (AUT)
- 4 Junko Nakamura (JPN)

For further details on all the above please visit [www.fai.org/].

FAI Centenary 2005 - Official Reception in Lausanne

A skilled display by local aeromodellers (turbine helicopter, miniature hot-air balloon, etc), was rounded off by the arrival of four parachutists in the very centre of Lausanne, as FAI marked the year of its centenary with a special reception at the Casino de Montbenon, 19 May 2005.

Representatives of almost 40 FAI member countries from four continents, as well as a dozen FAI Commissions, were present. Guests included prominent Swiss government officials, diplomats, leaders of other international sports federations,

heads of various Swiss aviation bodies, and representatives of the Olympic movement. Bertrand Piccard spoke about his "Solar Impulse" project and an Ambassador representing Founder Members proposed a toast to the second century of FAI.

Madame Maurer-Mayor, Minister of the State of Vaud, wishing FAI well for its next 100 years, said "The City of Lausanne and the State of Vaud are proud and honoured by the presence of FAI. It offers the local people a great opportunity to plunge into the fascinating world of aeronautics."

To see some photos of the event, please visit [www.fai.org/node/70].

High Flyers – A Century of Sporting Achievements in the Air

The FAI Centenary book, "High Flyers – A Century of Sporting Achievements in the Air", is now available. For further information, please visit [www.fai.org/centenary/highflyers].

World Record Cancellation

FAI has cancelled the following Class 0 (Hang Gliders) record claim:

Claim number 9952:

Sub-class 0-3 (Paragliders) – General

Type of record: Straight distance to a declared goal

Course/location: Patu, RN (Brazil)

– Independencia, CE (Brazil)

Performance: 315km

Pilot: Marcelo Prieto (Brazil)

Paraglider: Sol Paragliders Synergy 2

Date: 30/10/2004

Current record: 308km (29/10/04, Marcio Nascimento Pinto, Brazil)

Reason for cancellation: Pilot was not holding a valid Sporting Licence during the Record Attempt, as required by FAI Sporting Code, General Section, 6.5.

World Record Claim

FAI has received the following Class 0 (Hang Gliders) record claim:

Claim number: 11640

Sub-class 0-3 (Paragliders)

– Multiplace Category

Type of record: Out-and-return distance

Course/location: Location to be confirmed

Performance: 153.4km

Pilot: Klemen Peljhan (Slovenia)

Co-pilot: Tanja Kompan (SLO)

Paraglider: Mac Para technology PASHA 2

Date: 28/05/2005

Current record: 129.6km (15/05/00, Jürgen Stock, Austria)

The details shown above are provisional and the exact figures will be established and the record ratified (if appropriate).



JOEYGLIDE 2005 – The Second Australian Junior Nationals

Nick Gilbert – Contest Director



JoeyGlide 2004 - Kyle Nordman (from Canada) and Ingo Renner

OVERVIEW

The Gliding Federation of Australia has endorsed the second dedicated Australian Junior Nationals. The first contest was held last year at Temora in New South Wales. Although the weather did not cooperate, the event was a great success overall. We are expecting that this year will produce larger numbers, both from Australia and overseas.

As with last year, the organisation team and support staff, where possible, will be pulled from the younger generation of current competition pilots.

DATES

Sunday 4 to Saturday 10 December 2005. Saturday the 3rd is an official practice day. Further practice prior to this is possible.

LOCATION

Leeton, NSW has been chosen for the following reasons;

- *It is in the middle of an excellent cross-country area*
- *The weather at this time of year is likely to produce good reliable flying*
- *It is semi equi-distant from Southern Queensland, NSW, Victoria and South Australia.*
- *Leeton Township offers a variety of accommodation from super luxury expensive motels, to camping on the airfield with a good range of budget pubs in between.*

- *Leeton and Wagga Wagga Gliding clubs have offered to assist in the running of the competition.*
- *Leeton is near to two larger towns, Narrandera and Griffith. Both have regular regional air services.*
- *The airfield is generally quiet and does not have restrictions that can exist with larger, government run airfields.*

ELIGIBILITY

To be eligible, you need to be less than 26 years of age as at the completion of the contest (beginning of December 2005).

To be able to compete, you need to have completed the following:

- *Solo,*
- *Silver C Certificate*
- *Cross-country rated*
- *Sufficient flying standard and currency to be able to fly a glider in the range as per below with or without water ballast.*
- *Access to glider/car combination that meets the range below.*

Junior Pilots who don't quite make these requirements are encouraged to express their interest in flying the contest in a high performance two-seater with an experienced sports coach.

Previous contest experience is not required, though naturally encouraged.

CONTEST FORMAT

The contest is to be held over a one week format with a champion(s) to be determined at the end of the week assuming a minimum of three contest days.

Winch Launching will be available during the contest.

The contest is to be a single class handicapped event based only on glider performance with (suggested) glider range limited between Std Libelle and Ventus. As a separate fun event, there is expected to be a number of medium-high performance two-seaters in the range of Twin Astir to Duo Discus/DG-1000/Janus, and possibly an ASH-25 or Nimbus 3D/4D.

Depending on the number and (glider) range of entries/expressions of interest, this glider type range may be expanded to be a little closer to a traditional club class, though not as wide a range of glider performance as

club class. If you are keen on entering and your glider sits outside Std Libelle/Ventus range please contact us for more information.

The tasking format is expected to be assigned area and/or run task. The organisers reserve the right to make an assigned area into either small circles (ie: traditional speed task) or wedge shapes depending on the day's conditions.

Water ballast may be used.

Pilot Pairs may be allowed (ie: where two pilots share a glider on alternate days for the week)

Two prizes will to be awarded;

- Australian Junior Champion, based on cumulative points at the completion of the contest, handicapped only by the gliders performance level. The handicap format proposed is FAI Club Class Nationals handicapping system.*
- Australian Joey Cup/Weight for Age Handicapped Champion. This award shall be based on the above score, averaged per day, further modified by a remarkably wild and complex formula that shall include the age and experience (in flying hours) of the contestant. The aim is to recognise the best performance for their respective experience levels so that even the least experienced competitors in the field have an even chance of winning.*

ENTRY INFORMATION

The contest entry fee is \$200. For pilots who pay their entry fee prior to 31 August 2005, the Leeton Gliding Club will waive camping fees (normally \$6 per person, per day). Aero tow tickets will be \$35 each, winch tickets \$10 each.

SCORING

Scoring will be by datalogger only. If organisers and entrants cannot borrow enough IGC approved loggers, at our discretion, we may allow Garmin GPS as primary loggers.

CONTEST OBJECTIVES

- *To award the prize of Australian Junior Champion as well as first and second runners-up.*
- *To award the "Joey Cup" handicapped prize.*
- *To set up and establish the beginnings of a robust Junior Nationals that, ideally, will*

Photos: Courtesy Nick Gilbert

grow to self perpetuate itself for years to come (much like the current British system).

- To use this contest as the primary selection criteria for GFA-endorsed Australian entrants to the Junior World championships.
- To reserve some places for international pilots and, in particular, at least one place for a pilot from New Zealand, so as to have some high standard foreign competitors to test our best.
- To have a contest with a better balance between fun and seriousness than FAI or Sports Class Nationals.
- To include respected sports coaches in similar performance two-seaters to coach less experienced pilots in the air, and on the ground.
- To encourage Juniors who are just short of the experience level who want to enter, to follow the development plan below so that they are at this level by the time of the contest.
- To keep costs for competitors as low as reasonably possible.
- TO HAVE FUN

DEVELOPMENT PLAN

For those pilots wishing to enter, and particularly those not currently Cross-country/ Silver C rated, the following is recommended as a development plan;

- Consult your regional sports coach for specific development plan advice



JoeyGlide 2004 - Rodney Wellington and Paul Mander

- Talk with your instructor regarding Silver C flying work and paddock checks.
- Local cross-countries (where possible) from your own club.
- Attending club camps (where possible) from either your club or other clubs.
- Do as much flying as possible over winter.

EXPRESSIONS OF INTEREST

We would appreciate expressions of interest as early as possible so that we know who and how many to plan for. When expressing your interest, please also advise your preference for flying: the whole week yourself, flying as part of a pilot pair (ie sharing a glider) and/or flying in a high performance two-seater with an experienced competition instructor. Please also indicate your experience, approximate level and likely glider type that you might bring (or are aiming to try and borrow off someone else).



JoeyGlide 2004 - Jade Palmer, Sarah Allen and Anne Philcox

If you are ineligible to compete in the contest, you may still be able to assist in the contest in one of the following ways;

- You may have a glider that you are able to let a Junior fly in the contest
- You may be able to attend the competition to assist in any number of ways (crewing for Junior pilots, running ropes, filling roles within the contest organisation)
- You may be willing to make a cash or goods donation (for prizes, or for material required for running a contest).
- You may be willing to sponsor a junior from your local club or area.

If you are a private owner, remember, we all want someone to sell our glider to one day!

MORE INFORMATION?

Please forward your expressions of interest to the following: <ContestDirector@JoeyGlide.com> or phone: (0419) 412 772.



Australian Gliding Museum Inc. News

Dave Goldsmith

THE MUSEUM WEBSITE IS NOW UP AND RUNNING. YOU CAN VIEW THE WEBSITE FOR A COMPREHENSIVE OVERVIEW OF ACTIVITIES ON [www.geocities.com/aus_gm] (NOTE THE UNDERSCORE BETWEEN AUS_GM).

The Museum has enjoyed wonderful support in the provision of workshop facilities in the past, however a change of ownership of the workshop means that we must now pay our way. A number of proposals are being examined, however in the meantime we sincerely request that all GFA members support this worthy cause with a tax deductible donation. Not only will you be assisting with the survival of the Australian Gliding Museum Inc for all present and future Australians, but you will also be showing your appreciation for the countless hours put

into restoration work by the many volunteers who selflessly give their time to preserving our past. Gifts can be posted to Mr. Graeme Barton, Secretary, Australian Gliding Museum Inc, 2 Bicton Street, Mount Waverley, Vic, 3149, telephone: 03 9802 1098.

The Museum also asks for the donation of surplus releases, instruments, publications or any item of gliding paraphernalia that may be of interest. Unfortunately some items have been discarded in the past that would greatly assist with restorations, preservations and planned displays, and we hope all gliding people can keep the Museum in

mind when any item is no longer needed. Please also ensure that the Museum is mentioned in an appropriate place as beneficiary of your gliding paraphernalia if it is likely to be disposed of by family or friends.

The Museum is able to make its glass bead blaster available for small components for an appropriate fee.

New members are welcome to join the Australian Gliding Museum Inc, please contact Graeme Barton at the above address. For a small membership fee you will be assisting in preserving our heritage for the future, and you will receive our regular newsletter.





Second Scale Aerotow Event

Wayne Hadkins

IN MAY 2005, THE WAGGA WAGGA GLIDING CLUB (WWGC), IN CONJUNCTION WITH SCALE SOARING AUSTRALIA, HOSTED THE SECOND SCALE AERO TOW EVENT AT THEIR LOCKHART, NEW SOUTH WALES, AIRSTRIP. OVER THE WEEKEND, SIX FULL SIZE SAILPLANES (FIVE LOCAL AND ONE VISITOR FROM MOUNT BEAUTY) OPERATED HAPPILY WITH THE SCALE SAILPLANES. THE SCALE SAILPLANES WERE TYPICALLY QUARTER-SCALE, WITH WINGSPANS UP TO FIVE-AND-A-HALF METRES, THE OWNER/PILOTS HAVING TRAVELLED TO LOCKHART FROM THE RIVERINA, SYDNEY AND THE ACT.

Unfortunately, heavy cloud cover on Sunday morning prevented a Super Ximango from Camden from getting through, having to turn back near Cootamundra. Naturally, by mid-Sunday afternoon, the cloud had burned off and several local pilots enjoyed soaring flights to 4,500ft.

To enable joint operations off the single grass runway, the airfield was effectively divided down the runway centre line, with the scale models operating on one side and the full size on the other. The full size launched off the WWGC twin drum winch, while the scale models were aerotowed behind radio controlled tugs.

A joint full size and scale flyers pilot briefing was held each day before flying commenced. At the end of the days flying,

a joint debrief was held. A flight line director at the scale pilot's flight line liaised continuously via radio and hand signals with the WWGC duty pilot, to ensure all ran smoothly while adhering to all conditions of the CASA approval. During the weekend, we also had visits from a Sapphire ultralight, an RV4

and an RV6, as well as several Air Experience Flights – all were accommodated happily.

On field catering kept visitors and locals topped up. On the Saturday night, all pilots and partners socialised over a meal at the local services club. Following the meal, an aviation trivia quiz was hotly contested –

Some of the Remote control pilots provide perspective to their scale sailplanes at a Lockhart Scale Aero Tow, 2005





Photos: Felix Niewenhuizen

Left: Most of the pilots with their sailplanes at Lockhart Scale Aero Tow, 2005

scale flyers versus full size – with the final result being declared a draw! Rumour has it that several “competitors” have gone away to do some serious research for brain teasers for next year’s quiz.

Winner of the Bob Phillips Memorial trophy (pilots’ choice for the most impressive scale model) was won by Tim Nolan from Sydney, with his quarter-scale Fox aerobatic sailplane. The local television and newspapers provided excellent coverage of the event, including footage from the Prime TV journalist’s flight in the club Blanik. The coverage certainly raised the profile of the WWGC in the local community.

The date for the 2006 event is yet to be determined. If you are interested in attending, please contact Wayne Hadkins <wayneh@optusnet.com.au> or Grant Johnson <gljohnson@bigpond.com> for more details.



Peter Niewenhuizen (Sydney) lands Tim Nolan's radio control quarter-scale Fox



Visiting RV4 departs Lockhart with WWGC Blanik in the background

NEW TEST “BONUS” NOW IN THE SKY

Geoff Pepper

A NEW MACHINE HAS GRACED THE SKIES OF CZECH REPUBLIC
AND IN THE WORDS OF COMPANY PARTNER, ZBYNEK JAROS:

“The TST-14 Bonus has tasted the air during its series of maiden flights. The day was grey (overcast), but with low wind, quite suitable for such initial flight tests.

All was okay and even better than expected. With one Pilot, the take-off run was about 200m, full throttle climbing 4m/sec, stall speed sufficiently below 65km/h.

The aircraft was very well controlled, with good manoeuvrability. We look forward to its next flights.”

July 2005

With the success of the single self-launched TST10m, the Company already has deposits lodged for its two-seater.

The new 17m Bonus has the same power-plant as the already proven DM 8, being the Rotax 503UL-D.C.D.I. with its geared reduction to remove the hassle of belt adjustment and replacement.

The Standard base for the Bonus is the Czech National Standard ULK which is in

most paragraphs identical or similar to JAR 22 .

The company is keen to tap into the market created by the pilot who wants a low-cost machine with the independence of self-launching.

More information on the company can be obtained by contacting <glider@wn.com.au> or fax/phone 0896416085. TeST company website [www.test.infoline.cz].



A Geriatric on the Move

Jonas Moham-Wild

BEING A GERIATRIC, I GUESS I WAS ABOUT THE ONLY ONE WHO WAS SURE TO MAKE A SOLO FLIGHT IN THE GLIDER. MOST OF MY INSTRUCTORS GAVE UP ON ME, BECAUSE I COULD NEVER MANAGE THE LAST 50 OR 60FT ON FINAL. MY STRONG BELIEF WAS: WHAT GOES UP HAS TO COME DOWN. WAS I WRONG!

For many months I could not get close to the ground and then for many months, I tried to bury the plane in the ground. Finally it happened. Right out of the blue, one Saturday, the chief instructors, Glen Mclean and Graham Rock said: "Jonas now you go solo."

To my surprise, after waiting for such a long time for their last words, I nearly objected, but they both were determined. Not so the tug plane. All checks behind me I was ready to go, but the battery of the tug was dead. Glen and Graham rushed to the tug while I sat in the Blanik, a check glider, like a patient in a hospital emergency room, waiting for the operation. The sun was not the reason for my sweat, it was the anticipation of what was to come. After about 45 minutes of hanging around everything was okay. "Relax and enjoy" was not really the appropriate remark of Glen as I gave a thumb up.

Ready to roll and off we, sorry I, went. What a shock, before I could think what I had to do next, the glider was off the ground and swung around like a ballerina out of balance. I realised then, that I was missing 200kg, sorry Glen, 199kg in the backseat. At 300ft I was recollecting the last take off with Graham, when he pulled the release at 300ft and I had to decide where to land! Otherwise, the towing was not different than any before. Hoffy, the tug pilot, was at his best behaviour, even I could follow him.

He towed me at the 2,000ft mark into a very nice thermal and once released and FUST, the after release checks of flap, undercarriage, speed and trim, out of the way I started to settle down. It suddenly clicked, I was on my own! What a feeling, and how quiet it can be up here. No one telling you: "Watch the yaw string, watch your wings, watch your speed, go left, right, straight ahead, look at the horizon and check your attitude, etc." I started to feel like being in paradise, no, like being in heaven.

My only real worry was the radio. All my working life I was playing in front of mikes, but in the plane my tongue was frozen and I stuttered like a little boy who had wet his trousers. I came up with some beauties, all wrong of course. The right call to descend below 1,000ft was: 'All stations Richmond MBZ, (Mandatory Broadcasting Zone), this is glider GGD descending through a thousand feet, joining a right downwind



Jonas Moham-Wild with his clever pooch, 'Belvedere'

landing on grass 10.' Red in my face I called such things as ZNB, NBC, right-hand down leg; right wing. Believe me, when it was finally time to give my location and intentions, I blushed like in my fifth youth.

After about an hour soaring south to north and east to west, I heard a voice from the flight tower telling three US Hercules to forget landing because there was a dummy up on his solo flight in a glider. They all sent good luck calls by radio and entered a permanent circuit. I felt like opening the canopy, stand up and take a bow.

Although my landing was sort of a budget landing, I touched twice down in the same flight, nothing extraordinary happened. I realised on my downwind leg how much easier it is to fly the circuit without an instructor, because there was no one behind me to make the final decisions.

Yes, Glen you were right again: I never was as relaxed as on my final descent. Although I had a tiny budget landing, my undercarriage touched the ground twice, I could control it perfectly well and landed safely.

Up there I told myself over and over again; Mohammed you can do it.

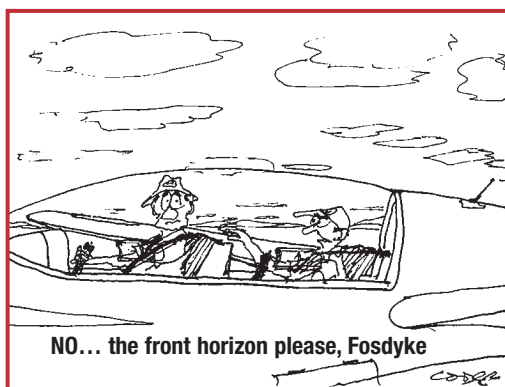
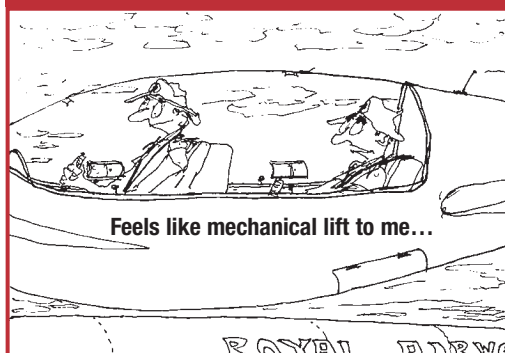
Thinking of the way Glen's eyes shone the same way as he speaks of his grandson, I knew, that they would not have entrusted me to fly one of the club's gliders alone, had they not known that I could fly it.

Hey, guess what, I did it.

Being a Swiss protestant, in other words a miser, the day went from good to terrific, there was no beer in the fridge, so I was unable to shout a round at the end of the day.



Cartoons by Codez



Soaring Calendar

AUSTRALIA

Canberra Gliding Club Annual Wave Camp 21-27 August 2005

Bunyan, NSW. This camp presents an opportunity for those wishing to experience wave flying for the first time to those chasing their Gold and Diamond height gains. Site Check required for all first time visitors, and as required by club instructors. Airspace and procedures briefings provided, with access to A Class airspace available (conditions apply). Oxygen refills, and limited accommodation available at reasonable cost on the airfield. Three oxygen equipped club gliders (including one two seater) available for _ day periods, bids required. For further details see our website [www.canberragliding.org] or contact Allan Armistead on 0413 013911 or <aaci@hotmail.net.au> with your booking.

Jimbour Wines Qld State Gliding Championships 18-24 September 2005

McCaffrey Field, Jondaryan. Organised by the Darling Downs Soaring Club. All classes, practice day Saturday 17 September. For more information contact Ralph Henderson, ph: 07 38436178, <rhenderson@iinet.net.au> or go to [www.ddsc.org.au].

Canungra Paragliding Cup 8-15 October 2005

Canungra Qld. Paraglider pilots are invited to compete in the sixth year of the AAA sanctioned Canungra Paragliding Cup. Only 85 entries will be accepted to compete this year for the eight day event. Pilots must have a minimum of Intermediate rating. Entries will be accepted based on the requirements in the latest edition of the HGFA Competitions Manual. Last year saw six days of epic flying, all high scoring 900+ point days! Come and experience the fun and games, supportive and diverse flying Canungra has to offer. Entry fee will be \$390. This includes full retrieve service, pilot pack, official comp T-shirt, map, presentation dinner and day prizes. Package includes pickup and return from Brisbane Airport on Friday 7 October. Accommodation in Canungra is limited, so book early for rooms at the Motel, B&B and Hotel. Details available at [www.chgc.asn.au] (click on the "Competitions" link). Registration can be made online. Email enquiries to the Competition Organiser, Brandon O'Donnell, on <canungracup@chgc.asn.au>.

AirBorne Gulgong Classic 22-26 November 2005

Gulgong, NSW. Entries for this aerotow competition will be strictly limited to 50 aerotow qualified pilots. Entry fee: \$350 covers T-shirt, presentation dinner, strip and hangarage fees and all tows on competition days (practice days are pay per tow). 21 November is set as a practice day. Due to the complexity of organising tugs a late fee of \$50 will be imposed for entries received after 30 September. Enquiries to <fly@gulgongclassic.com>, ph: 02 49423131 or 0412 423133. Online info and rego at [www.gulgongclassic.com]. Comp factors are: AA grade, 5km, 70km, 10%.

Australian Junior Nationals (JoeyGlide '05)

3-10 December 2005

Leeton, NSW. See [www.JoeyGlide.com/JG2005/] for more details.

Club Class Nationals 2006 16-27 January 2006

Hosted by GCV. While Benalla has had competitions in the recent past, this one is being held during the prime soaring season. We hope this will guarantee some excellent weather for your tasks. Benalla has large areas of flat land to the north and the foothills and Alpine Mountains to the south, so these lots of variety for tasks or directions to fly. The airfield has a large (long and wide) grass east/west (08-26) strip, as well as a sealed power strip running parallel. Two grass parallel runways are also available for north/south (17-35). Two tie-down areas are available. The first is adjacent to the runways and can accommodate approximately 20 aircraft. Further space is available in front of the club hangars. The clubhouse has a large room well suited for briefing and evening meals. The clubhouse is airconditioned and has a licensed bar and meals will be available for around \$10 a meal so you'll you can save your pennies at the clubhouse or sample the variety of restaurants around town. Benalla has a variety of restaurants, clubs and take away to fill your tummies. The clubhouse has a number of PCs wired up to our network and broadband internet connection so you can download you emails fast. For those with wi-fi capability on their laptop or handheld will find connectivity in and around the clubhouse. Limited camping is available at the airfield and there are additional camping options at the town's caravan park. A variety of motel/hotel accommodation is available around town. The closest only 500m from the clubhouse. The township of Benalla is close by, about 1.5km, or about a nine-minute walk. There are many activities to amuse in the local region should the day not be flyable. Many wineries are available for tasting with the nearby Milawa region renown for its good food. The nearby hills offer many trips, walks and sights. If you need a real shopping trip, Melbourne City is just over two hours down the freeway offering its famous Victoria Market or bevy of fashion and food shops. The Gliding Club of Victoria welcomes all pilots and their crews and look forward to hosting a successful and safe competition for you.

OVERSEAS

German Paragliding Championship 2005

24-31 July

Oberstdorf, Germany. Registration for the German PG Championship is open. Registration and training day is the 24th, with the first competition day on the 25th. We have reserved at least 60 places for international pilots. Entry fee: 166 Euro (before 15/6/05), 186 Euro (from 16/6/05). For the English invitation visit [www.dhv.de/typo/Invitations.1335.0.html]. For English online registration visit [www.dhv.de/typo/Online_sign_in.1336.0.html]. For accommodation information visit [www.oberstdorf.de].

Red Bull X-Alps

1 August 2005

Dachstein, Austria. Participants race across the Alps from east to west by flying their paraglider or by hiking and without the help of any other means of transportation. Monaco, the destination, is about 850km from Dachstein and must be reached via Zugspitze and Mont Blanc in three weeks or less. Teams consist of one paraglider pilot and one support person. For the pilot, mobilised transportation of any kind is forbidden. The support person can use any means of transportation except for flying, and helps his/her team mate with the supply of food, equipment and information. Online registration for athletes opens 25 April on the competition website [www.redbullxalps.com].

Taiwan Open 2005

1-7 August

Join us in Taiwan and thermal your way to fantastic cash prizes totalling US\$40,000 and more! Situated in the lush south-east of Taiwan, the town of Luye, Taitung, invites you to cruise above some of the most breathtaking valley and coastal landscapes while you compete in an international sporting event. Contact our organisers by phone on +886937390055 or +886937390800, or email us at <contact@taatw.com>, or view our website at [www.taatw.com]. Secure your place by filling out the entry form posted on our website. Team and/or solo entries welcome.

8th Red Bull Vertigo

18-21 August 2005

Villeneuve, Switzerland. Lofty loops, breathtaking stunts and blue skies, the 8th HG and PG Aerobatics World Cup will take place from 18-21 August above Lake Geneva in Villeneuve, where the world's best pilots are expected to meet for the Red Bull Vertigo 2005. Approximately 50 pilots will be making the journey from many countries – such as Switzerland, Turkey, Norway, Germany, Austria, Italy and Spain – to explore the limits of their flying skills.

Ladies Open Distance Comp

11-16 December 2005

De Aar, South Africa. This Cat 2 competition is not restricted to women only, but they do hold the upper hand! Every woman who enters the comp gets 4 nominations. These nominations can be used at her discretion; for every spot used (male pilot nominated), she gets 1/4 of her entry fee discounted, i.e. 4 nominations = Ladies Free entry. Payment per nomination must be received by 10/12/05 for the entry and discounts to be valid. For international ladies, should you not have enough pilots coming with you, we can find local nominations for you and in return these local pilots on your "team" will assist you with local site knowledge. As this is a winching event there will be limited entry space available, so don't leave your planning too late. Contact us for more information: Des and Arnold ph/fax: +27 (53) 631-1555, web: [www.pottiesbnb.co.za].

IGC World Gliding Calendar

2007 and beyond

2007 WGC – Juniors, Bid selection 2005
2007 WGC – Women's, Bid selection 2005
2007 Alternative Events, Bid selection 2005
2008 WGC – 15m/18m/Open, Bid selection 2005
2008 WGC – Std/Club/World, Bid selection 2005
2009 WGC – Juniors, Bid selection 2006
2009 WGC – Women's, Bid selection 2006
2009 Alternative Events, Bid selection 2006
2010 WGC – 15m/18m/Open, Bid selection 2007
2010 WGC – Std/Club/World, Bid selection 2007
2011 WGC – Juniors, Bid selection 2008
2011 WGC – Women's, Bid selection 2008
2011 Alternative Events, Bid selection 2008
2012 WGC – 15m/18m/Open, Bid selection 2009
2012 WGC – Std/Club/World, Bid selection 2009
2013 WGC – Juniors, Bid selection 2010
2013 WGC – Women's, Bid Selection 2010
2013 Alternative Events, Bid Selection 2010
2014 WGC – 15m/18m/Open, Bid selection 2011
2014 WGC – Std/Club/World, Bid selection 2011

NOTE: Shown as running through 2014 for illustrative purposes only. Calendar and structure of the World Gliding Championships will continue on as shown after 2014 (until changed or modified by the IGC Plenum).

Advanced Flying Syllabus

Terry Cubley – GFA Development Officer

Some members have looked at the new advanced flying syllabus and the feedback has been excellent. By now, your committee and instructors' panel should have provided copies to all post-solo members, and hopefully to pre-solo pilots also. If you would like to download your own copy, just go to the GFA web page www.gfa.org.au and look up forms etc, post solo syllabus. When printing this document, you need to print back to back otherwise the pages won't make sense.

Now what do you do with it?

The first couple of pages list a range of goals. The most important step is to set some realistic and achievable goals – something that really interests you. You don't have to aim for competition, or aerobatics, or instructing, etc but all of these are great options, if that is what you like. Small steps can lead to any, or all, of these options in the future.

For recently solo pilots, this can include the C certificate, or AEI rating, or maybe your Silver C. For more advanced pilots, you may be looking to achieve your Gold C, or a 500km flight, or independent operator status. The options are endless.

Most clubs have coaches available. Many instructors can act as coaches also – although many have already committed most of their available time to weekend instruction. For smaller clubs, don't feel left out, you are welcome to speak through your state association and utilise the resources from the larger clubs and commercial sites (you will actually be impressed by how affordable the commercial sites are)

Because this syllabus is still fairly new, we don't have a set program of coaching to support it just yet, but it is on the way. However, our coaches can individually support you to achieve your goals.

Tools and equipment

Each club should have an aircraft that can be taken cross-country, with a suitable trailer in case the inevitable happens. Certainly, outlanding approvals should be possible. If you cannot get outlanding checks at your own club, contact another club or commercial operation to see what is possible.

I recommend to all clubs that they provide a GPS logger for members to use. This has a range of uses, from claiming the different FAI badges through to analysing your flights to discover where you can improve your performance.

Most clubs have barographs and cameras that were bought 20 years or more ago. It's time to update – the information available for coaching and self-evaluation, as well as their simple use, and also the navigation benefits mean that you should be updating now.

There are a number of options available. The Colibri and Volkslogger are simple to use, small boxes that cost approximately \$1,500. The EW is a little larger but I am unsure of the price and functionality. The Cambridge provides more information and has a larger screen so is easier to use for navigation, but is close to twice the price. Each of these loggers are fully certified and can be used for all badges and records.

A cheaper alternative is a Garmin which provides good data and navigation, but is not certified for badges and records. These cost in the order of \$3/400.

I suggest that if you are interested you contact each of the agents in Australia to see what they have available – they may have a better deal than I have remembered above.

The software program SeeYou can read all of these loggers and provides some excellent statistics of the flight, as well as letting you relive the flight in 2D, 3D and barograph. This can provide an excellent learning opportunity and really supports the whole coaching program.

It also makes it easy to enter the decentralised event, which is to be conducted

through the German on-line competition. This is also a great event, and your club can enter flights each flying day and compare your (handicapped) performance against all other clubs in Australia on a daily basis.

The club will also need to get a computer and place this in the clubhouse. SeeYou will let you have some great debriefings at night, with the odd maggot race to really enthuse new members.

If you are unsure about this technology, please contact your local coaches or state association.

Converting Passengers to Members

Many clubs are now doing an excellent job with looking after visitors and getting them into the air. Some of the more successful clubs are also offering some great packages to encourage further involvement.

What I see though in many clubs is that we look after people, make them feel great about their flight, and then send them on their way with a certificate and maybe some photos/CDs. What happened to the extra little effort to give them a small package of how to join the club and continue their excitement? It doesn't take much, but you would be surprised how many people turn up a week or two later to take up membership or a package deal. The Caboolture club members actually spend five minutes after the passenger flight to read through member options with the visitor, and they have the best uptake of converting passengers to members that I have seen. What has your club's success been like in this – I would love to hear your experiences – send a letter to the Soaring Australia editor to let everyone know.

Tracking tool

The commercial sites provide excellent service for new members. Course members get five to six flights per day so that real progress is made. They are quick to offer up new goals after solo and encourage members to extend their experiences.

When I look through my logbook of my first couple of years of gliding back in the late 60s, I notice that I spent a week (eight days actually) at the club over Christmas but only received, on average, two flights per day, for approx 40-60 minutes flight time. Back in those days

I was quite happy to hang around, not much else to do anyway. These days the options for members are much greater and I fear that this level of service will only result in people moving on to something a little more rewarding.

How does your club rate – do you provide proper service to members? Do your members get at least four flight per day? Maybe 90 minutes flying time each day? Do they get solo, C certificate, Silver C, independent operator status plus other within the first two years? If not, maybe you need to have a serious look at what you are offering and providing to members.

I am convinced that the reason for the rapid decline in membership in the 1980s and 90s was that our clubs continued to offer the service that was acceptable in the 60s but certainly didn't meet the needs of the new society. We lost a generation of members in that period: it is critical that we do something now to make sure that we keep the current generation.

We have a tracking tool that your committee/instructors' panel can use to track the progress of members. If you track what is happening to them, it lets you take some action to make sure that you are offering the right service, and also lets the new member know if they need to increase their own commitment. This is also available on the GFA web page under forms – Tracking Tool. Let us know what you find?

Members, if you feel that you are not getting great service/support, download the tracking tool yourself, fill it in and then use it to encourage the club committee or instructors' panel to support you more.



Lenticular clouds over windmills at Ovenden Wind Farm in northern UK

Photo: M Karas, Sydney Gliding Club

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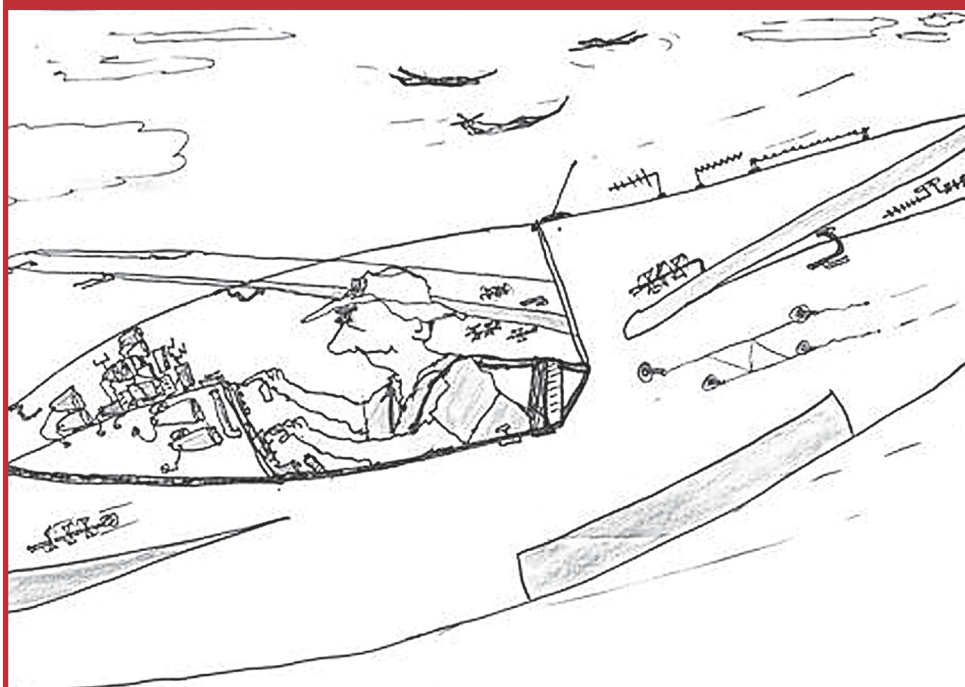


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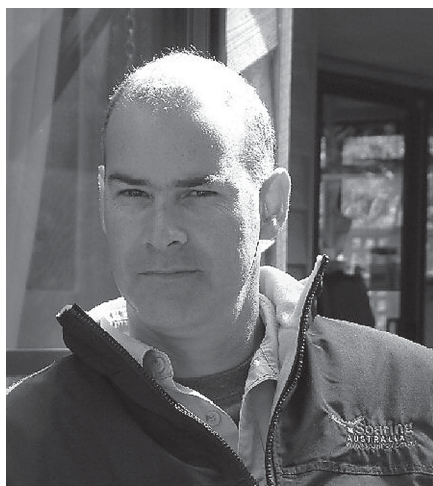
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Cartoon by Codez



Fosdyke's total belief in electronics was sadly misplaced

HGFA General Manager's Report



Four weeks away and now I am madly trying to catch up. The business of this sport just keeps rolling in. We are in busy times, but interesting times.

I recently attended further meetings concerning the drafting of our new CASRs, particularly Parts 103, 105, 149, 115, LSA (Light Sport Aircraft) and development of the concept of the Parallel Path. During these meetings a paper was circulated that contains some paragraphs I would like to share with you. The following is excerpted from this paper concerning Part 149 – Recreational Aviation Activity Organisations, drafted by Richard Macfarlane and Neville Probert of CASA Operations/Flight Crew Licensing and Airworthiness Standards. I believe it is very important for us to understand some history of where the concept of self-regulation came from, where they are going and why it is so important for us to maintain. To that end I quote the following text:

Self-regulation – How We Are Making Our Own Laws

Over the past half century Australia has developed a method of catering for the various needs of sport and recreational aviation participants by exempting participants from certain provisions of Civil Aviation Regulations that were considered inappropriate for the aircraft or activity being undertaken.

In place of the 'standard' regulations, rules for the operation of the aircraft and the qualification of the pilots and maintainers were contained in Civil Aviation Orders and in manuals developed by the participants under the umbrella of a national organisation for each sporting or recreational activity.

A condition of the exemption was that participants complied with the rules and standards jointly developed between CASA and the responsible body of participants as contained in the applicable manual...

...In 1987 the House of Representatives' Standing Committee on Transport Safety (HORSCOTS) published its report into sport aviation safety. This report validated the practice, initiated in 1949, of removing the administration of sport and recreational aviation from the direct involvement of the regulatory authority. The Civil Aviation Act provided for the regulatory authority to achieve its functions by contracting for someone else to carry them out. The policy, confirmed by Cabinet in 1983, allowed for this to be performed by non-profit organisations representative of the entire industry sector, and financially assisting them to carry out these delegated functions by means of an annual performance contract.

(This summarises, in current terminology, recommendations 17b, 5 and 6 of the report "Sports Aviation Safety" published in January 1987.)

The subsequent history of the administration of sport and recreational aviation regulation has followed these, and the other 20, recommendations in the HORSCOTS Report and built upon them, so that many of the current proposals being drafted by CASA can be recognised as stemming from this source...

...Subsequent relations between the regulatory authority and the sport aviation organisations have for the most part been harmonious and progressive, with each contributing effectively to the development of a regime where the maturity of the industry organisation is recognised by the regulator, and as a result the degree of autonomy in the administration of the rules, and the development of the rules themselves, has confirmed the wisdom of the overall system of self-administration and led to an increase in overall safety for the public and for participants, whilst at the same time containing costs within a reasonable limit and encouraging the growth of this sector of the aviation industry...

...The Minister for Transport and Regional Services has issued CASA with broad directions as to how to fulfil its obligations under the Civil Aviation Act, 1988 (the Act). The Minister has included as Government policy to devolve the administration of sport and recreational aviation to representative industry bodies, to the maximum extent practicable...

Proposed Rule Makings

Discussion on the form of proposed rules under the Civil Aviation Safety Regulations to date has involved only those individuals who were members of the various advisory panels established by the Minister, the former Boards of CASA and other levels of management within CASA. These primarily consisted of the representatives of the existing organisations who have historically administered this sector of aviation, plus a few individuals who presented a strong enough dissenting view to come to the attention of CASA management or who believed that the exemption-based system discriminated against their legitimate interests in other areas of aviation. The views of the leaders of the existing organisations, and those dissenting individuals, have now been condensed into a form where input from the wider public sphere of participants in sport and recreational aviation, general aviation and the public can be canvassed.

Draft regulations will be developed and incorporated in any future Notice of Proposed Rule Making (NPRM) resulting from this initial consultation, together with the necessary manuals and other supporting material. Development of these is expected to commence prior to formal legal drafting of any resulting new CASR Parts and the NPRM phase of consultation on this subject. At the stage of publishing a NPRM the public will be provided time to comment on the acceptability of the rules before they are passed into law.

Current Status on these Parts

Parts 149 and 103 are very close to being finalised to the NPRM stage. Part 103 will be read against a test known as Directive 16 during June. Directive 16 provides that a regulation being imposed under the new CASRs is outcome based rather than being a prescriptive regulation.

Part 149 is all but complete, now requiring a regulatory framework applied before undergoing the test against Directive 16.

Part 115 has taken a new evolution where in its current development is now only applicable to Ballooning, providing for individuals that want to operate as commercial Balloonists.

LSA (Light Sport Aircraft) is still undergoing some issue resolution regarding certification of Airworthiness processes. CASA is needing to gain the legal understanding of how this part will be implemented. It may take some time before this is all worked out. Where this affects the HGFA is how we might pursue the

certification of the Dragonfly and other tug aircraft within the HGFA.

Parallel Path was progressed toward a clearer principle of understanding what it will provide. A Parallel Pathway will only be available through CASA where there is no other existing parallel path (eg: microlight pilots can go either through HGFA or RAAus so there is already a parallel path in existence). The Parallel Path will not provide for pilot training or operator training. The working group is still working on how the Parallel Path will be implemented, but at least they now have some guiding principles by which to move it forward.

For online information on what each of the Parts relates to and how they are developing you can get the project status from [<http://rrp.casa.gov.au/casr/>].

CASA Reshuffle

CASA is being restructured. The restructure takes effect as of 1 July. There will be six divisions:

- Air Transport
- General Aviation (includes Sport & Recreational Aviation)
- Personnel Licensing, Education and Training
- Information Management
- Legal Services Group (new regulations, etc)
- Manufacturing, New Technologies, Aircraft Certifications (LSA)

New Security Regulations – Aviation Transport Security Act 2004

Owners of all powered aircraft are now required by law to take reasonable measures to deter the theft of their aircraft when they are unattended and assembled for flight. The areas of the Aviation Transport Security Act 2004 (the Act) and its supporting regulations which concern all powered aircraft (including sports aircraft) are those about the requirement to take reasonable measures to deter theft. This requirement applies when the aircraft is unattended and capable of flight. This measure could comprise locking it in a hangar (or garage, or shed) or fitting a locking device (bought or home-engineered). Pilots of ultra/microlight aircraft may use a length of thin steel cable (plastic-wrapped) around the controls and secured with a padlock. The standards for these cables and locks must comply with Australian Standard:

AS 4145.4-2002 Locksets – Padlocks, with the highest grade practicable for the locking device chosen. Locking systems can cost as little as approximately \$60. More information can be found at [www.dotars.gov.au/transsec/atsa/resources/Aircraft_Locking_Devices.doc]. You

should also look at the relevant CASA AWB which is at [www.casa.gov.au/airworth/awb/02/008.htm].

Photographic Licences

Fortunately for sport aviation pilots, the requirement for photo IDs only applies to pilots who hold CASA licences. As we are licensed with HGFA, the regulations regarding photographic pilot licenses do not apply to us.

ASIC and Background Checks

All pilots (us included) who ever fly to or from an airfield that has an RPT service will need an Airport Security Identification Card (ASIC) before 31/12/2005. The details on this will be released by DOTARS before the end of June. It will require background checking.

Update on the 2c Changes to NAS

The National Airspace System Implementation Group (NASIG) is still in consultation and negotiation with the Civil Aviation Safety Authority (CASA) on the final draft of the 2c changes relating to operations at non-towered aerodromes. These negotiations are expected to be finalised by the end of June 2005 and information will then be placed on the Airspace Reform website at [www.dotars.gov.au/airspacereform] in early July 2005. Additionally, the NASIG will undertake a series of presentations to aero clubs and aviation forums around the country, following the distribution of training and education material, as part of the pilot education campaign leading up to the implementation date in November 2005.

Landowner Liability Issues

The office receives many enquiries regarding Landowner Liabilities. The following is provided to clarify insurance queries in relation to the cover provided for landowner liabilities.

Firstly, the Waiver Forms (correctly known as Release, Indemnity and Assumption of Risk Warning) are not to be confused with coverage provided by the HGFA Liability Insurance Policy. The Land Owner is not asked to complete a waiver form. The waiver form is of interest and useful to the Land Owner in that the member who has signed the form has limited recourse against the HGFA and Land Owner for injury incurred whilst participating in (including accessing) a HGFA activity.

The HGFA Liability Insurance Policy is posted on the HGFA website for all parties to review and is Public Knowledge. The HGFA has a comprehensive Insurance Policy and

procedure to provide indemnity to any Land Owner willing to allow the HGFA to operate from their site. In particular reference to the HGFA Insurance Policy, attention should be made to the following items:

- Page 1 – Schedule – Insured (4)
– Clearly shows the interest of the Landowner as an Insured.
- Page 1 – Limit of Indemnity – Clearly shows the \$10,000,000 (10 million) Liability Limit.
- Page 1 – Period of Insurance – Shows expiry at 31 March 2006 and the HGFA Office has the Certificate of Renewal if required.
- Page 2 – Part A Coverage – This part is the Flying Participation coverage.
- Page 3 – Part B Coverage – This part is the Non-Flying Coverage.
- Page 18 – Endorsement 2 – Indemnity & Waiver – Clearly shows the insurer waives their right of recovery against the Landowner.

Any further enquiries relating to the interpretation of this policy should be directed to the General Manager.

The Elusive Waiver

Talks with the drafter of the generic waiver confirm that it is now ready for HGFA implementation. I am expecting to roll this out in the coming month.

Breach of Operational Regulations

I take very seriously any breach of controlled airspace or any report of pilots flying overly close to residential property, particularly in motorised aircraft. Recently three pilots flew into controlled airspace and another on a separate occasion who repeated his action only an hour after being reprimanded by the local police. CASA is now dealing the latter; the club has imposed penalties under my delegation for the other three.

I have no hesitation in escalating recalcitrant pilots to CASA where continual breaches are being made of either local club or airspace regulations.

Without wanting to wave a big stick and treat the offending member as an errant child, I request again your ongoing compliance and respect for airspace regulations, local site regulations and the respect of the residential public where you fly. Low level buzzing of people's homes in motorised gliders is not how we should conduct our operations, nor does it extend our good will to the public who comment on our operations. The reports regarding motorised paragliders come from Beachmere north of Brisbane.

HGFA General Manager's Report

Accident Report

Number 1

Pilot: Intermediate visiting pilot
Experience: 30 hrs; approx 5 hrs last 90 days
Aircraft type: Paraglider
Pilot injury: Bruising to knee
Bystander injury: Laceration to shin
Aircraft damage: Nil
Location: Coastal site
Conditions: Light onshore breeze

Description:

It was midday, there was very strong sun so most of the people were next to the local kiosk or under the trees located around the park. The pilot made an approach to the landing area as recommended, flying the downwind leg before the turn in the landing zone. When the pilot went to make the last turn (into the designated landing zone) he realised that he did not have enough height to make the turn safely. Although there was a number of people walking around in the park, the pilot thought there was enough

space to land straight ahead - a corridor with no people in the middle of the park. He noticed that there was a small gathering of people around the tree near the back of the park. He was sure that he could land before flying into this group. Unfortunately, he was not able to land in the short distance as he had thought, being carried further into the park because of the faster tailwind. He flew into the circle of people, touching down just as he approached the group. Due to his momentum he stumbled forward and collided into one of the group, causing her to fall over her chair. He still had some speed, and as he tumbled forward he hit another member of the group on the shin with his knee. The wing was now hanging in the tree in front/over him, not behind him, carried by the wind into the branches. This pilot suffered no major injury, however the injured bystander sustained a laceration to their leg which continued to bleed due to the medication they were on for diabetes. Luckily a nearby pilot had

a first aid kit and was able to apply a compress to the injury site.

Comment:

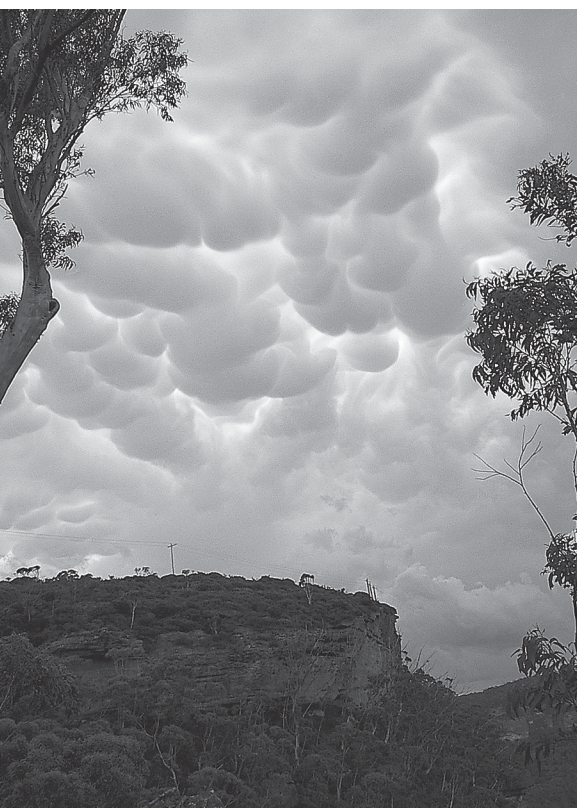
The pilot misjudged altitude coming in to land and misjudged the glide that comes from flying downwind. Had the pilot put more attention into the setting up of the landing he may have avoided this accident.



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Dense Mammatus clouds in the Blue Mountains

Photo: Alex Raymont

THERE'S MOVEMENT AT THE AIRFIELD

John Norton

*It's towing at the airfield
That's brought 'em near and far
For gliders are advancing
Down the runway behind a car.*

*While others are adjusting
To the dolly on three wheels
Being towed by tug beginners
With gliders on their heels.*

*Well things at times get edgy
When a glider runs amok
And finds a course that seems its own
As the pilot's mind seems stuck.*

*The instructors gasp in silence
As the student gasps in fear
Then desperation hits the threshold
While the student tries to steer.*

*The situation's getting ugly
As the student pulls the pin
Anxiety fills instructors
'Coz the student's luck looks thin.*

*Then a sigh is heard revealing
The crowd has felt relief
While the student's pulse is racing
In a moment of disbelief.*

*Well a chapter has hit again
In the moment of another tow
When all seemed to go so strangely
Then off for another go.*

Greater Airspace Access for Glider Pilots

Gliders now have more access to previously unavailable airspace under changes introduced by Airservices Australia specifically for non-powered aircraft.

Previous rules prevented glider access to Class E airspace around Hobart, Launceston, Albury, Tamworth, Coffs Harbour, Maroochydore, Rockhampton, Mackay, Hamilton Island and Alice Springs airports. These airports have Class D air traffic control towers. Then, all aircraft were required to operate a transponder in the Class E airspace within 40 nautical miles of these airports.

This restriction was lifted on 9 June to allow gliders to operate without a transponder.

"We are very pleased to be able to provide more airspace to the gliding fraternity without compromising safety," an Airservices spokesman said.

"The changes will significantly benefit pilots who have been prevented from operating

in the airspace around Albury-Wodonga which is particularly well-suited to glider operations."

The previous rule stated that all aircraft must be fitted with and operate a serviceable Mode A and C Secondary Surveillance Radar (SSR) transponder in Class E airspace within 40 miles of a Class D tower.

As gliders do not have the capacity to power a transponder, this rule had restricted access to airspace since the introduction of National Airspace System (NAS) changes in November 2003. The rule had also restricted access to the Class E airspace around Coffs Harbour and Tamworth airports for several years prior to this.

The November 2003 NAS changes resulted in large amounts of Class G airspace being reclassified to Class E airspace. Where Class G airspace was replaced by Class E airspace around the Class D tower locations, non-pow-

ered aircraft could no longer operate in this airspace.

Around Albury for example, gliders were restricted to the Class G airspace at and below 8,500ft, where previously they had been able to operate up to Flight Level 125.

In November 2004, additional Class C airspace was introduced at these Class D tower locations to provide protection for regular Instrument Flight Rules flights.

Since the majority of IFR routes around the Class D towers are now within Class C airspace, the requirement for non-powered aircraft to operate a transponder was reviewed.

Airservices Australia conducted a safety analysis, including fast time simulation of the usual flights in the airspace, to assess the safety implications of the rule change. Airservices Australia provided this information to the Civil Aviation Safety Authority (CASA) for review. CASA endorsed the change.



HAPPENED RECENTLY ON AN AIRFIELD

Martin Feeg

I had to give a rather junior pilot an area check. We hopped into the two-seater and agreed for a 3,000ft launch agl. At about 1,600ft above ground my pilot wanted to bung off. I questioned his request as we had agreed on 3,000ft. He quickly affirmed his mistake.

After an hour mucking around in the area, pointing out towns, villages, hills, motorways and other features, apart from enjoying various sources of lift, we returned close to the airfield.

We still had enough altitude to stray as much as 10km without challenging our final glide. You should understand, the runway to land on at the new airfield is within 10 degrees of his home airfield runway. However on his home airfield gliders stay at one side of the field. In this case, all aircraft are doing a certain pattern (left hand circuit) no matter which runway.

Crossing the runways way above circuit I asked: *"How far are we from the airfield?"* The answer: *"I have to turn towards circuit!"* I forced him a good way out and asked to go for landing – still plenty of spare altitude.

Back to the runways the pilot tried to go into a pattern that would have been appropriate for his home airfield, taking the wind into account; however this was contrary to the camp airfield landing pattern. Pointing this out to the front seat pilot he proceeded along the runway and subsequently messed up the circuit, being too close to the runways and allowing for no options. And, again, he neither judged the angles nor other features.

Close shave? I don't think so. A case with a few lessons to learn for the vast majority of you guys – and don't say "it won't happen

to me!" (It took me over 400 launches in mostly different terrain, to now say "unlikely" to happen to me!)

Most importantly, this fellow is entirely relying on the altimeter, proven by the bung-off altitude and the urge for a circuit right above the airfield. This new airfield was a good notch more elevated than back where he trained.

Secondly, doing the circuit in a different pattern threw him to his limits.

LESSONS TO BE LEARNED:

Don't rely on the altimeter. If you have to land at home after a significant change of pressure you might get confused. Landing away from home you are likely to be confused. Performing an outlanding, you will be confused! I bet you! You only need to rely on your senses. Train with your CFI, blind out instruments from take off until touch down. And, also, train non-standard approaches on home runway as well as on runways unknown to you. Further your skills by doing outlandings.

Your senses won't deceive you, judge angles and ground features for altitude and distance; rely on your hearing for judging the speed!

A vario is only to boast at the bar, reporting the maximum strength, and a glide computer is just an aid supporting your decision.

If you don't manage these basics you are a threat to yourself and the aircraft. Sorry for being so blunt, but it is winter, you can step up your training, and I don't want you next summer being another count to these cold statistics.

Safe soaring..



Contact Addresses

GFA

NSW Gliding Association (NSWGA)

Australian Air League

NSW Gliding Wing, 1 Perry St,
Kings Langley NSW 2147.

Bathurst Soaring Club

PO Box 1682, Bathurst NSW 2795.

Byron Gliding Club

PO Box 815, Byron Bay NSW 2481,
02 66847627, 0428 847642.

Byron Soaring Centre & Aeroclub

PO Box 549, Byron Bay NSW 2481
02 66844244.

Canberra Gliding Club

PO Box 1130, Canberra City ACT 2601,
02 64523994, 0428 523994.

Central Coast Soaring Club

PO Box 1323, Gosford South NSW 2250, 02
49772740.

Cudgegong Soaring Pty Ltd

PO Box 352, Frenchs Forest NSW 1640,
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Forbes Soaring & Aero Club

PO Box 267, Forbes NSW 2871,
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Goulburn Gliding Group

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Grafton Gliding Club

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Greenethorpe Gliding Club

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Harden Gliding Club

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62585554, 02 62578280, 0418 670291, Sec:
Richard Hart 02 62585554.

Hunter Valley Gliding Club

PO Box 9, Newcastle NSW 2300.

Lake Keepit Soaring Club

PO Box 152S, South Tamworth NSW 2340,
02 67697514, 02 67697640.

Leeton Gliding Club

PO Box 607, Leeton NSW 2705,
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Narromine Gliding Club

PO Box 240, Narromine NSW 2821,
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NSW AIRTC Gliding Club

41 Simpson Ave, Forest Hill NSW 2651,
02 69227526.

NSW Police Gliding Club

27 Bourne St, Wentworth Falls NSW 2782,
0427 592744.

RAAF Richmond Gliding Club

RAAF Base, Richmond NSW 2755.

RAAF Williamstown Gliding Club

C/o Mr AJ Lee, 10 Federation Dr., Medowie
NSW 2318.

Royal Australian Naval

Gliding Association

PO Box A37, Naval Air Base, Nowra
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Scouts NSW Air Activities Gliding Wing

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Soar Narromine Pty Ltd

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Southern Cross Gliding Club

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Summerland Gliding Club

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Sydney Gliding Inc. (Concordia GC)

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Temora Gliding Club

PO Box 206, Temora NSW 2666,
02 69772733.

Wee Waa Gliding Club

(formerly Warrumbungle GC) PO Box 586,
Wee Waa NSW 2388, 02 67954333.

Queensland Soaring Association (QSA)

Boonah Gliding Club

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07 54632630.

Bundaberg Soaring Club

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Caboolture Gliding Club

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Central Queensland Gliding Club

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Darling Downs Soaring Club

PO Box 584, Toowoomba QLD 4350,
07 46637140.

Gympie Gliding Club

PO Box 103, Gympie QLD 4570,
07 54867247.

Kingaroy Soaring Club

PO Box 91, Kingaroy QLD 4610,
07 41622191.

Moura Gliding Club

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07 49973265.

North Queensland Soaring Centre

PO Box 1743, Aitkenville QLD 4814.

No. 229 Squadron Australian

Air Force Cadets

3 Hedlow Court, Carindale QLD 4152,
07 33989745, 0148 984752.

Southern Downs Aero & Soaring Club

PO Box 144, Warwick QLD 4370,
07 38923473.

Tarwan Soaring

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SA Gliding Association (SAGA)

Adelaide Hills Soaring Group

PO Box 1, Bridgewater SA 5155.

Adelaide Soaring Club

PO Box 94, Gawler SA 5118, 08 85221877,
08 85223177.

Adelaide University Gliding Club

Adelaide Uni Sports Association,
the University of Adelaide, SA 5005, 0412
870963.

Air Cadet Gliding Club

PO Box 2000, Salisbury SA 5108.

Alice Springs Gliding Club

PO Box 356, Alice Springs NT 0871,
08 89526384.

Balaklava Gliding Club

PO Box 257, Balaklava SA 5461,
08 88645062.

Barossa Valley Gliding Club

PO Box 123, Stonefield via Truro
SA 5356, 08 85640240.

Bordertown Keith Gliding Club

PO Box 377, Bordertown SA 5268.

Millicent Gliding Club

PO Box 194, Millicent SA 5280.

Murray Bridge Gliding Club

PO Box 1277, Victor Harbor SA 5211.

Northern Australian Gliding Club

PO Box 38889, Winnellie NT 0821.

Port Augusta Gliding Club

PO Box 272, Port Augusta SA 5700,
08 86436228.

Renmark Gliding Club

PO Box 450, Renmark SA 5341,
ph/fax 08 85951422, mob 0417890215.

Scout Gliding Club

22 Burford Crescent, Redwood Park
SA 5097.

Waikerie Gliding Club

PO Box 320, Waikerie SA 5330,
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Whyalla Gliding Club

PO Box 556 Whyalla SA 5351
08 86452619, 0413 876642.

Victorian Soaring Association (VSA)

Albury Corowa Gliding Club

PO Box 620, Wodonga VIC 3689.

Beaufort Gliding Club

116 Tennyson St, Elwood VIC 3184.

Bendigo Gliding Club

62 Lawson St, Bendigo VIC 3550.

Corangamite Soaring Club

Kurweeton, Derrinallum VIC 3325.

Geelong Gliding Club

PO Box 197, Bacchus Marsh VIC 3340.

Gliding Club of Northern Tasmania

58 Hales Street, Wynyard TAS 7325,
03 64422108.

Gliding Club of Victoria

PO Box 46, Benalla VIC 3672, 03 5762
1058, 03 57625599.

Grampians Soaring Club

PO Box 468, Ararat VIC 3377,
03 53524938.

Latrobe Valley Gliding Club

PO Box 625, Morwell VIC 3840.

Mangalore Gliding Club

PO Box 80, Avenel VIC 3664.

Mount Beauty Gliding Club

44 Roper St, Mount Beauty VIC 3699.

Murray Valley Soaring Club Ltd

PO Box 403, Corowa NSW 2646.

RAAF East Sale Gliding Club

C/o Gary Mason, 9 Weir St, Sale VIC 3850.

Soaring Club of Tasmania

C/o Bruce Thompson, 34 Clinton Rd,

Geilston Bay TAS 7015, 03 62552191 (h),
03 62252561 (CFI).

South Gippsland Gliding Club

PO Box 475, Leongatha VIC 3953.

Sportavia Soaring

PO Box 78, Tocumwal NSW 2714,
03 58742063.

Sunraysia Gliding Club

PO Box 647, Mildura VIC 3500.

Swan Hill Gliding Club

PO Box 160, Nyah VIC 3594.

Tumbarumba Gliding Club

Mundaroo, Tumbarumba NSW 2653.

Victorian Motorless Flight Group

(Operates out of Bacchus Marsh aerodrome)
GPO Box 1096J, Melbourne VIC 3001, 0402
281928, 03 98486473.

Wagga Wagga Gliding Club

25 Beauty Point Ave, Wagga Wagga
NSW 2650, 0427 205624.

Wimmera Soaring Club

PO Box 158, Horsham VIC 3402.

WA Gliding Association (WAGA)

Beverley Soaring Society

PO Box 136, Beverley WA 6304, 0407
385361.

Gliding Club of Western Australia

356 Abernethy Rd, Cloverdale WA 6105,
08 92774148, 0409 683159, 08 96351023.

Morawa Flying Club

PO Box 276, Morawa WA 6623.

Narrogin Gliding Club

PO Box 232, Narrogin WA 6312, 0407
088314 or 08 98811795 (weekends).

Stirlings Gliding Club

C/o Post Office, Lower King WA 6330.
WA Squadron Australian Air Force Cadets
Headquarters, RAAF Base, Pearce,
Bullsbrook WA 6084, 08 95717800,
08 95717877.

HGFA

All correspondence, including changes
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term memberships, rating forms and other
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NSW 2508, ph/fax 02 4294 9300, 0417
766356, <general.manager@hgfa.asn.au>.

Information about site ratings, sites and
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ate State associations, region or club.

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Paul Haines ph/fax: 02 42941031.

GFA MEMBERSHIP FEES 2005

Membership:	Normal	Family
NSW/QLD	\$175	\$139
Victoria	\$176	\$140
South Australia	\$179	\$143
Western Australia	\$180	\$144

Student membership:	Full	Family
NSW/QLD	\$108	\$72
Victoria	\$109	\$73
South Australia	\$112	\$76
Western Australia	\$113	\$77

Short-term membership:	1 Month*	3 Month*
NSW/QLD/VIC	\$48	\$60
South Australia	\$57	\$69
Western Australia	\$58	\$70

*Note: Once only purchase to Australian residents,
thereafter 12 month membership to be
purchased.

International postage for Soaring Australia
to be added to membership fees:

Zone	Country	Price
1	New Zealand	\$54
2	Singapore	\$60
3	Japan, Hong Kong, India	\$60
4	USA, Canada, Middle East	\$66
5	UK, Europe, South America, South Africa	\$72

States & Regions

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Hang Gliding Association of WA

PO Box 146, Midland, WA 6936; <hang_gliding_association_wa@hotmail.com>. Admin: Rick Williams <hang_gliding@dodo.com.au>; V-Pres/Sec: Nigel Sparg <nsparg@bigpond.net.au>; HG Rep: Gavin Nicholls <gknichol@tpg.com.au>; PG Rep: Gordon McCabe <csikacro@yahoo.com.au>; PM Rep: Mark Wild <mark@gastech.com.au>.

NSW Hang Gliding Association

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North Queensland HG Association

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Queensland HG Association

Pres: Greg Hollands <greg.s.hollands@transport.qld.gov.au>; PO Box 61, Canungra Qld 4275 07 38448566.

South Australian HG Association

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Tasmanian HG & PG Association

19 Christella Rd, Kingston TAS 7050, [www.thpa.net]; Pres: Anthony Mountain (Sth HG pilot) 0407 299011, <president@thpa.net>; Sec/Trs: Mico Skoklevski (Sth HG pilot) 0418 398624, <secretary@thpa.net>; PG contact: Rob Steane (Sth PG pilot) 0418 146137, <paraglide.info@thpa.net>; Bill Brooks (Nth PG pilot & HG info) 0409 411791, <northern@thpa.net>.

Victorian HG and PG Association

PO Box 157 Northcote VIC 3070, [www.vhpa.org.au]. Pres: Carolyn Dennis; Sec: Steve Norman; Trs: Lisa Charleston; SSO: Rob Van Der Klooster 03 52223019 (h). Site weather-boxes: Three Sisters 0409 864700, Buck-land Ridge 0407 356295, Mt Buffalo 03 57501515, Ben More 0417 112062.

Clubs

New South Wales

Blue Mountains HG Club Inc.

Pres: Peter Burkitt 0418 435204 <pburkitt@ozemail.com.au>; Sec: Andrew Paterson 0425 305984 <apaterso@bhsc.nsw.gov.au>; Trs: Allan Bush 02 47738037 <fairallan@pnc.com.au>; SSO: Allan Bush, Paul Hunt 0408851876 <huntp@ozemail.com.au>; Newsletter: Paul Hunt. Comp Director: Alan Bond 0408470544 <skybond@iprimus.com.au>. Meetings: 4th Wed of Jan/Mar/May/Jul/Sep/Nov, Blue CattleDog Tavern, Banks Dve, St Clair.

Dusty Demons Hang Gliding Club

6 Miago Court, Ngunnawal, ACT 2913. Pres: Trent Brown 0427 557486, <trent.brown@anu.edu.au>; Sec: Peter Dall 0428 813746, <peter.dall@casa.com.au>; Trs: Dan Watters 0410 347801, <dan.watters@csiro.au>; SSO: Grant Heaney 02 48494516, 0419 681212, <grant@dustydemons.com>; Editor: Kath Kelly 02 64561590, 0427 220764, <phase9@snowy.net.au>.

Hunter Skysailors

Pres: David Holgate 0410 112381, <david.holgate@hotmail.com>; V-Pres: Meg Butler 0408 446358; SSO: James Thompson 0418 686199, <james.b.hunterlink.net.au>. Meetings: last Tue/month 7pm, Hexham Bowling Club.

Illawarra Hang Gliding Club Inc.

27a Paterson Rd, Coalcliff NSW 2508. Pres: Frank Chetcuti 0418 252221 <chetcuti1@bigpond.com>; Sec: John Parsons; SSO: Tim Causar 0418 433665 <timcau@ozemail.com.au>.

Kosciusko Alpine Paragliding Club

[www.homestead.com/kapc]; Pres: James Ryrie 02 62359120, <rymicalago@netspeed.com.au>; Sec: Alex Johnson 0411 748713.

Manilla SkySailors Club Inc.

PO Box 1, Manilla 2346, [www.FlyManilla.com]. Pres: Brian Shepard 0401627830; V-Pres: Suzy Smith 02 6785 6545; Sec/Trs: JJ Bastion 0427 161504; SSO (HG): Patrick Lenders 02 67783484; SSO (PG): Godfrey Wenness 02 67856545, SSO (Towing): Rhett Rockman 0428 428962; Trikes: Will Ewig 02 67697771.

Mid North Coast HG and PG Club

Pres: Nigel Lelean 0419 442597, <nlelean@smartchat.net.au>; SSO: Jason Turner 0419 997196, <jasonflys@hotmail.com>.

Newcastle Hang Gliding Club

PO Box 64 Broadmeadow NSW 2292; [www.nhgc.asn.au], <fly@nhgc.asn.au>. Pres: Mick Hurley 02 49432903; V-Pres: Matt Olive 02 49436791; Sec: Simon Ross 02 49447915, 0407 528966; Trs: Monica Barrett 0425 847 207; SSOs: Tony Barton (coastal) 0412 607 815, John O'Donohue (inland) 0419 765715, Alaric Giles (inland) 02 49430674, James Thompson (PG) 0418 686199; Newsletter: David Stafford 02 49215832 <editor@nhgc.asn.au>. Meetings: Last Wed/month 7:30pm South Newcastle RLC, Llewellyn St, Merewether.

Northern Beaches HG Club

Pres: Wayne Fitzgerald 02 99827094; Sec: Brian Clarke 0418 280407, <trincott@bigpond.com>; Trs: Jim Gaal 0414 799822, <jimg@acay.com.au>; SSO (HG): Glen Salmon 02 99180091; Wayne Fitzgerald 02 9982 7094; SSO (PG): Wayne Fitzgerald 02 9982 7094. Meetings: 1st Tue/month 7pm Mona Vale Bowling Club.

Northern Rivers HG and PG Club

PO Box 126, Byron Bay NSW 2481, [http://bbhgc.tripod.com/]. Pres: Eddie Gray 02 66841795, <edgrey@linknet.com.au>; Vice-Pres: Maggie Clark 0404 263524; Sec: Mick Mackender 0414 867820.

Stanwell Park HG and PG Club

PO Box 258 Helensburgh NSW 2508; Pres: Chris Fogg 0412 904800, <fogg@idx.com.au>; Trs: Adrian Le Gras; Sec: Scott Zwanenbeek <scottz@internode.on.net>; SSO: Tony Armstrong <tony@hangglideoz.com.au>, 02 42949999.

Sydney Hang Gliding Club

Pres: Bruce Wynne 0417 467695, <bwynne@bigpond.net.au>; Trs: John Selby 02 9344 7932, <johnselby@idx.com.au>; Sec: Steve Hocking 02 93274025, <nswhga@s054.aone.net.au>; SSOs: Bruce Wynne, Doug Sole; SSO: Ken Stothard. Meetings: Monthly 7:30pm Endeavour Hotel, Botany.

Victoria

Dynasoarers Hang Gliding Club

Pres: Darren Brown 03 93971233 (w), fax: 03 93974566, <dbrwn@bmllegal.com.au>; Sec: Dale Appleton 0408 382635; Trs: Greg Holt 0418 516058; SSO: Rob Van Der Klooster 03 52223019, 0408 335559; Publicity Officer: Harry Buckle 03 52214544, <monument@pipeline.com.au>. Meetings: 1st Fri/month, venue see: [vhpa.org.au/dyna].

Melbourne Hang Gliding Club Inc.

PO Box 8057, Camberwell North VIC 3124; [www.hgfa.asn.au/~melbourne/], <melbourne@hgfa.asn.au>. Pres: Hugh Alexander 03 97101214 (h), 0417 355578, <wurundjeri.lane@bigpond.com>; Sec/VHPA rep: Steven Ross 0410 600595, <stevenc@pchelpathome.com.au>; Trs: Leif Gorander 03 97080136 (h); 0407 540502, <leif.gorander@varianinc.com>; SSO: Peter Batchelor 03 97353095 (h), <pbatch@netspace.net.au>. Meetings: 3rd Wed/month 6:30pm Palace Hotel, 893 Burke Rd, Camberwell.

North East Victoria HG Club Inc.

Pres: Heather Mull 03 437134573, <hmull@bigpond.net.au>; V-Pres/Trs: Isla Christian 03 408362277, <islaperter@bigpond.com>; Sec: Brian Webb 03 417530972, <brianmwebb@bigpond.com>; Mship: Simon Taylor 03 404942933, <stayl@cs.mu.oz.au>; Comps: Karl Texler 03 428385144, <brightvt@netc.net.au>; Comms: Geoff Wong 03 403441147, <geoff@zikzak.net>; Committee: Vivian

ALL CLUBS PLEASE CHECK DETAILS IN THIS SECTION CAREFULLY

Could all Clubs please ensure they maintain the correct and current details of their Executive Committees and contacts here in the magazine. Specific attention is directed to the listing of SSOs and SOs for the Clubs. Please ALL CLUBS and nominated Senior SOs and SOs confirm ALL SSO and SO appointments with the HGFA Office <office@hgfa.asn.au> to ensure that those holding these appointments have it listed on the Membership Database and can receive notices and correspondence as required. Appointment of these officers is required to be endorsed by Clubs in writing on the appropriate forms. Sometime in the future if confirmation is not received, those listed in the Database where no current forms or confirmation is held, the appointment will be taken as having expired.

General Manager, HGFA

Williams 03 409505812, <viv@forwardsixty.com>. Meetings: [www.hgfa.asn.au/~nevghc/].

Sky High Paragliding Club

[www.skyhighparagliding.org]; Pres: Colin Page 0411 555128; V-Pres: John Styles <jdstyles@hotmail.com>; Trs: Clinton Arnall 0415 229315, [membership@www.skyhighparagliding.org]; Sec: Georgia Buckingham <secretary@www.skyhighparagliding.org>; Web: Tony Tidswell <webmaster@www.skyhighparagliding.org>; APN Editor: Julie Sheard 0425 717944 <editor@www.skyhighparagliding.org>; SSOs: Kevin Gingell-Kent, Alister Johnson, Adam Neinkemper. Meetings: 1st Wed/mth 8pm Retreat Hotel, 226 Nicholson St, Abbotsford.

Southern Microlight Club

[http://home.vicnet.net.au/~stclub/]. Pres: Kel Glare 03 94395920 (h), 0421 060706; V-Pres: Mark Howard 03 97511480; Sec: Dianne Pierpoint 03 9735278; 0429 938426. Newsletter: Barry Wood <jbwood@bigpond.net.au>, Michael Rose <mrose3@bigpond.net.au>. Meetings: 2nd Tue/month 8pm Manningham Club, 1 Thompsons Rd, Bulleen. Western Victorian Hang Gliding Club PO Box 92, Beaufort VIC 3373, [www.vhpa.org/vvwhgc]. Pres: Glenn Bachelor 0419 324 730, <GlennB@pocketmail.com.au>; V-Pres: Mark O'Keefe 0412 473724, <mokeefe@bigpond.net.au>; Trs: Stuart Coad 0408 524862, <scoad@edlyn.com.au>; Sec: Lisa Miller, 0407 319397, <lisam130@hotmail.com>; Web/Database: Damian Georgiou 0413 677090, <damiann@bachomp.net>; SSO: Rohan Holtkamp 0409 678734, <dynamic@netconnect.com.au>; Paul Rundell 0418 348948. Meetings: Last Sat/month, The Beaufort Hotel, Beaufort.

Queensland

Caboolture Microlight Club

50 Oak Place, Mackenzie QLD 4156. Pres: Derek Tremain 07 33957563, <derekjo@gil.com.au>; Sec: John Cresswell 07 34203254, <crezzi@lineone.net>; SO: Graham Roberts 07 32676662, <trike@tpg.com.au>

Cairns Hang Gliding Club

Pres: Russell Krautz <rkrautzr@yahoo.com.au>; V-Pres: Joe Reyes 07 40555553, <reyes@ledanet.com.au>; Sec: Lance Keough 07 40912117, 31 Holm St, Atherton QLD 4883; Trs: Nev Akers 07 40532586, <nevjoy@ozemail.com.au>.

Canungra Hang Gliding Club Inc.

PO Box 41, Canungra QLD 4275; [www.chgc.asn.au]. Pres: Brandon O'Donnell 07 3399 9850, 0416 089889, <president@chgc.asn.au>; V-Pres: Raef McKay 0408 994104, <vicepresident@chgc.asn.au>; Sec: Phil Hystek 07 55434000 (w), <secretary@chgc.asn.au>; Trs: Cameron McNeill 0419 706326, <treasurer@chgc.asn.au>; Gen. Exec. Member: Greg Hollands 07 32534239 (w), 07 3844 8566 (h), <gem@chgc.asn.au>; SSO PG: Phil Hystek 07 55434000 (h), 0418 155317, <sso@chgc.asn.au>; Senior SO (HG): Ken Hill 0418 186655, <sso@chgc.asn.au>.

Central Queensland Skyriders Inc.

915 Yeppoon Rd Iron Pot Qld 4701. Pres: Bob Pizzev 07 49387607; Sec: James Lowe 07 49309298 (w), 07 49363836 (h); Trs: Adrienne Wall 07 49362699; SSO: Alister Dixon 49861984; Towing Bilola: Paul Barry 07 49922865, <pbarry@tpg.com.au>.

Conondale Cross-Country Flyers Inc.

[www.entrypoint.to/conondale-x-country-flyers]. Pres: Peter Buch 07 54352421, <buchy9@bigpond.com>; V-Pres/SSO (PG): Graham Sutherland 07 54935882, <grahamsuth@optusnet.com.au>; Sec: Sue Buch, 531 Balmoral Rd, Maleny QLD 4552, 07 54352421, <spbuch@bigpond.net.au>; Trs: Kim Hodson 07 33541910, <khod@samford.net>; SSO (HG): Russell Groves 07 54450084.

Dalby Hang Gliding Club

27 Van Gogh Pl., Mackenzie QLD 4152, [www.hgfa.asn.au/~dhgc]. Pres: Daron Hodder 0413 515160, <daron@powerup.com.au>; Sec: Rod Flockhart 07 32193442, 0412 882639, <flockhartrod@hotmail.com>; SSO: Jason Reid 0418 771400; Trs: Cameron McNeill 07 38913457.

Sunshine Coast Hang Gliding Club

PO Box 227, Rainbow Beach QLD 4581; <intheair@ozemail.com.au>. Pres: Geoffrey Cole 0408 420808, 07 54554661 (h); Sec/SSO (PG): Jean-Luc Lejaille, 0418 754157, <rainbow_flyer@hotmail.com.au>; Trs: Gary Allan 0417 756878; SSO (HG): David Cookman 07 54498573.

Whitsundays HG Club

Pres: Graham Lee 07 49546726, <gdsrlee@hotmail.com>; Sec/Trs: Ron Huxhagen 07 49552913, fax: 07 49555122, <sitework@mackay.net.au>.

Northern Territory

Alice Springs HG and PG Club

Pres: Ricky Jones 08 89551088, 0402 805 099, <paragliding02@austarnet.com.au>. Please contact for paramotoring, PG ridge soaring & thermal flying.

Western Australia

Albany HG & PG Club

Pres: R D Jones, 1/14 Lyndavale Dr, Alice Springs NT 0870, 08 89551088, 0402 805099; SSO: Simon Shuttleworth 0427 950556; Sec: John Middleweek 08 9841 2096, fax: 08 98412096.

Cloudbase Paragliding Club Inc.

334 Belmont Ave Kewdale WA 6105. Mes-sagebank 08 94875253; Pres: Wesley Zadanowicz, 08 94293707, 0411 185091 <president@cloudbase.asn.au>. V-Pres: Nigel Sparg, 08 93049785, 0427 476629 <vicepresident@cloudbase.asn.au>; Trs: Colin Brown, 08 94594594, 0407 700378 <treasurer@cloudbase.asn.au>. Sec: Ian Threlfo, 08 94177952, 0407 089101 <secretary@cloudbase.asn.au>. Committee members <committee@cloudbase.asn.au>; Colin Asplin (08 92774191, 0409 050370), Mike Allen (0408 947048), Mark Wild (0411 423923), David Morgan (08 93590390, 0418 908625). Meetings: 2nd Tue/month, 7:30pm, The Windsor Hotel, 112 Mill Point Rd.

Goldfields Dust Devils Inc.

9 Broadarrow Rd, Kalgoorlie WA 6430. Pres: Richard Breyley <richard.breyley@harmonygold.com.au>, 0427 778202; Sec: Andrew Talmage <jodandrew@bigpond.com>, 0413 992960; Trs: Nick Holthouse <nick.holthouse@harmonygold.com.au>; SSO: Mark Stokoe <Mark.Stokoe@health.wa.gov.au>, 08 90911297.

Hill Flyers Club Inc

<hillflyers@dodo.com.au>; Pres: Rick Williams 0427 057961; Sec: Gary Bennett 0412 611680; Committee: Dave Longman 08 93859469, Mike Ipkendanz 08 9255 1397, Gavin Nicholls 0417 690386. Meetings held on site during club fly-ins, at either York, Toodyay or Seabird.

South West Microlight Club

Pres: Brian Watts 0407 552362; V-Pres: Don Wilson 08 97641007; Sec: Paul Coffey 08 97251161; CFI: Brendan Watts 0408 949004.

Western Soarers

<wshgc@hgfa.asn.au>, PO Box 483, Mt Hawthorn WA 6915, [www.westernsoarers.com]. Pres: Mirek Generowicz 0427 778 280, <mgenerow@bigpond.net.au>; V-Pres: Mark Wild 08 94098581, <mark@gastech.com.au>; Sec: Ben Griffith 08 94724068, <benandrobym@aardvark.net.au>; Trs: Sun Kenandron (0401 135042, <Sunny@iinet.net.au>; SSO (HG): Shaun Wallace 0411 885178, <swallace@iprimus.com.au>; SSO (PG): Jules Sanderson 0405 089709, <airoz@speedlink.com.au>. Meetings: Last Tue/month 7:30pm The Como, 241 Canning Hwy.



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GFA

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TECHNICAL SOARING/OSTIV: Quarterly publication of SSA containing OSTIV & other technical papers. Annual subscription: 70DM. OSTIV c/o DFVLR, D82234 Wessling, Germany.

VINTAGE TIMES: Official newsletter of Vintage Gliders Australia, edited by David & Jenne Goldsmith, PO Box 577, Gisborne VIC 3437, Membership \$15 pa.



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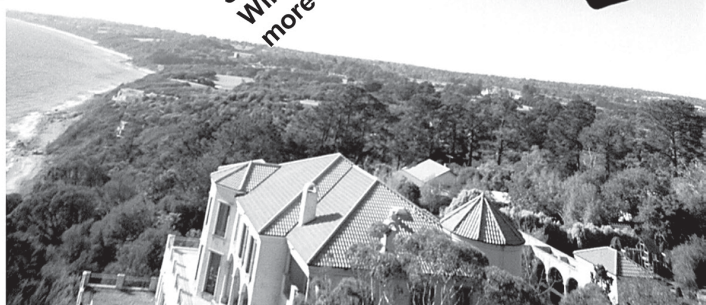
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