NEW ZEALAND'S PREMIER SOARING MAGAZINE

Soaring NZ

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issue 5 august/september 2008

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COCKPIT

REGULARS

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GNZ AGM

WHAT A DIFFERENCE A YEAR MAKES

On 14 June John and I attended the Gliding New Zealand AGM in Wellington. This year I was there as editor of GNZ's official magazine. The previous year I had attended to make my face known and press my case for McCaw Media to publish the magazine, if the membership were to vote to retain a compulsory magazine and should the Executive then put the magazine publication out to tender as I understood they were to do. I'll just say – I enjoyed myself much more this time around.

The wonderful thing about attending this year was to meet, in the flesh, many people I have been dealing with, predominantly through email, since starting SoaringNZ. There was a lot of time for chat during tea breaks and the cocktail party in the evening and I received pledges for stories, ideas and suggestions. The face to face feedback was very helpful and it was so pleasing to hear how well the magazine has been received among the membership.

The guest speaker at the cocktail evening was Sue Truman. I had known of Sue back when I was a new female glider pilot amid many men in the '80s. Sue was a bit of hero to me. I think at that stage she was flying for Air New Zealand. Her presentation told of how she went from glider pilot in her youth to hold senior positions in British Aerospace including Project Director of the Jetstream 41 project a few years ago. She had gained a PhD in Engineering along with PPL and CPL while working as an engineer at Air New Zealand. She later became an airline pilot flying the Friendships, Safe Air's Bristol Freighters and later the Argosy. Her talk was amusing and glossed over the fact that the high powered job at British Aerospace eventually led to health problems and her retirement six years ago. She now lives as an artist in Nelson. It was an amazing story and wonderful to think that one of our own went right to the top.

Sue Truman, guest speaker at the AGM

The official photographer (John) had to go and watch a rugby game on TV before the Awards were presented in the evening but Paula Ruddick picked up his camera and did an excellent job of capturing the occasion.

The morning had held the Airworthiness Engineers, and Contest Pilots' meetings. See the Executive report elsewhere in the magazine for information on those committees. The afternoon was the President's Forum. This is a chance for all members (not just the Presidents) to get together and discuss important things happening in the sport. I highly recommend coming to the AGM to attend this part of the proceedings. It is open to all, interesting and informative.

Two important presentations from the forum are published in this magazine. Rodney Bracefield from the Rescue Coordination Centre spoke on locator beacons and the systems behind emergency response. A précis of the talk is on page 19. This was followed by Roy Edwards telling of emergencies from the point of view of a contest director. He made some good points on position reports and improving safety. Roy has expanded on his speech in his article which appears on page 21.

The forum kicked off with the Canterbury Gliding Club (CGC) talking about problems they have had with the Civil Aviation Authority (CAA) after a towplane's rope clipped power wires and started a fire while coming in to land. As the result of a complaint from local residents, CAA audited the club's operation. The CGC are sure that had any significant faults been found in their operation CAA would have prosecuted the club. As this issue has not been finalised with CAA and others we won't discuss it further at this stage. SoaringNZ intends to have a complete report and discussion on the incident as soon as we are advised we may do so.

This discussion segued into a discussion on quality management and audit requirements. GNZ President George Rogers reminded clubs that the GNZ Part 149 certificate, which is the authority for all glider activities in NZ, is due for renewal next year. He said that we are weak in our Quality Management systems and in providing a paper trail that demonstrates the necessary reviews and audits have been carried out and follow-up action completed.

Due to a lack of people wanting to be Regional Ops Officers the idea of self auditing of clubs, or the auditing of neighbouring

Tony Passmore soars Wellington southern cliffs

Photo Vaughan Ruddick

next issue

World Champs – Ross Drake at Lüsse

Next in Aotearoa series – Out and return from Marlborough.

Sue Wild will tell us more about her adventures as Team Captain at the Worlds in Italy.

Deadline for Club News, articles and pictures is 10 September and 22 September for advertising.

clubs by senior instructors was discussed. The need for a paper trail was again emphasised. It was mentioned that in two recent fatal accidents authorities had to use club records as the pilot's own log books hadn't been filled in.

Roger Read (Youth Glide Canterbury) and Tom Shields (Youth Glide Omarama) gave a talk on Youth Glide as it is developing in the south. A video of Youth Glide Canterbury members in action made by Toby Read was shown. Jim Bicknell and Vern Grant from Gliding Wairarapa then gave a talk on what they have been achieving with youth and spoke of how they have managed to get gliding into the school awards system. We will hear more on that when the Aviation, Tourism and Travel Training Organisation (ATTTO) has finalised things. As an aside, Jim Bicknell rang me last week to announce that their youth group has voted to call themselves Youth Glide Wairarapa.

Airspace concerns were discussed and George Wills gave us a look at the new GNZ website that he hopes to have up and running in the next few months.

The official AGM was on the next day. We didn't go. We went out to Paraparaumu to have a look at operations there. It was a still winter's day so we didn't bother flying but John took photos and we enjoyed the welcome of club members and the chance to chat. Thank you to the Wellington members who put us up, made us welcome, took me out to dinner while John had to watch a rugby game and especially Tony and Vaughan for returning camera bag to owner when I left it behind in a bar.

Paraparaumu Hamish McCaw on wing. Mark Wilson, back seat, Kevin Clark in front

I strongly recommend that more 'ordinary' members think of attending the AGM next year. It was interesting and enjoyable and I'm pleased we went.

Regards

Jill McCaw

GLIDING NZ AGM – AWARDS 2008

Angus Rose Bowl

Presented to the NZGA by Mr Bill Angus, one of the original pioneers in aviation in New Zealand, the Angus Rose Bowl is awarded in recognition of outstanding services to the sport of gliding in this country.

Awarded (Posthumously) to Trevor Atkins

Three nominations were received for this award – all for the same person. Trevor was one of the gliding movement's most enthusiastic advocates. He had a great passion for gliding and was inspirational in driving innovation and change at every level. He seemed to have a boundless capacity for work, always looking for a project to be involved in. He enthusiastically gave a huge amount of time and energy to our sport at both local and national levels – a perfect fit for the Angus Rose Bowl.

Friendship Cup

Awarded for outstanding contribution to the gliding movement during the preceding year.

Awarded to Sue Wild

When Gliding New Zealand was contemplating whether or not to take on the organising of the World Grand Prix final, a key factor was Sue's willingness to become involved.

Right from the early planning stages through to the end of the New Zealand Air Games that followed, she was the communications link for the competing pilots and their crews – answering their many questions, booking their accommodation and rental cars, helping with flight bookings, hiring and shipping of gliders, meeting them on arrival in New Zealand and generally making them feel welcome throughout their stay.

CWF Hamilton Trophy

This trophy is awarded to a New Zealander operating in New Zealand, for the most meritorious flight that is a New Zealand gliding record.

Awarded to Steven Care

There were seven New Zealand records broken during the year, but the one judged most meritorious was by Steven for his 100 km Out & Return speed record flown in his ASW 20 out of Matamata in May last year – 163.46 kph.

Air NZ Soaring Award

This trophy is awarded to the pilot who has shown the most significant improvement in their personal standard of competition or record flying during the year.

Awarded to Brett Hunter.

This year's winner was recommended by the Sailplane Racing Committee.

Air NZ Cross-Country Awards (Open & Sports Classes)

These Awards aim to stimulate cross country flying from club sites and particularly encourage those new to this aspect of the sport. Flights during Championships are not eligible.

Sports Class

(For pilots who have not previously flown a Gold distance.)

Awarded to Richard McCaw, Canterbury

Open Class

Awarded to Dane Dickinson, Wellington

Accepting Awards at the GNZ AGM L-R Back Row: Steven Care, Tony Passmore, George Rogers (President GNZ), Sue Wild, Jill McCaw (for Richard McCaw)
Front: Warren Dickinson (for Dane Dickinson), Maurice Weaver (President Tauranga Gliding Club for Brett Hunter)

Buckland Soaring Award

This is awarded annually to the highest scoring New Zealand national in the New Zealand division of the Aerokurier Online Contest (OLC) for the previous season. OLC rules and handicaps are used. There are two divisions; one for soaring flights commencing in the North Island and the other for soaring flights commencing in the South Island. The winning pilots stand down for the following two seasons.

Eleven pilots competed in the South Island Division, all but one of them submitting six or more flights. Phil Plane submitted a total of 64 flights totalling 16,176 km!! However, it's only the best six that count.

1st place	Tony Passmore	Wellington	2654 points
2nd place	Phil Plane	Omarama	2483 points
3rd place	Hugh Turner	Omarama	2359 points

The North Island Division was not quite so popular – but again, the winner was

Tony Passmore Wellington

new zealand EVENTS CALENDAR

27-31	September 2008	Beginner Cross Country Course	Hororata
1-9	November 2008	Central Plateau Contest	Taupo
9-14	November 2008	Advanced Cross Country Course	Omarama
15-22	November 2008	South Island Regionals	Omarama
29 Nov-06	December 2008	Northern Regionals	Matamata
4-16	January 2009	National Championships excluding Sports Class	Omarama
31 Jan-07	February 2009	Central Districts	Waipukurau
15-27	February 2009	Sports Class Nationals	Matamata
21-28	February 2009	Matamata Soaring Contest	Matamata
31 Oct-08	November 2009	Central Plateau Contest	Taupo
14-21	November 2009	South Island Regionals	Omarama
21-28	November 2009	Northern Regionals	Matamata
2-9	January 2010	Omarama Cup	Omarama
TBA		National Championships all classes	Matamata or Taupo
27 Feb-06	March 2010	Central Districts	Masterton

SoaringNZ welcomes letters from readers. You can send letters by email to soaringnz@mccawmedia.co.nz or post them to: The Editor, SoaringNZ ,430 Halswell Road, Christchurch. SoaringNZ reserves the right to edit, abridge or decline letters. Writers name and address is required and a phone number is helpful.

We received several letters congratulating Nelson Pomeroy for his article on what really makes an aircraft fly. I know that the Canterbury Club QGP lectures spent a long time discussing the issue. Please feel free to let us know what you think of our stories.

The article in your last issue by Nelson Pomeroy was just great. I did some years of postgrad study in physics and have thought about that whole business a lot. Bernoulli and his theorem are indisputably correct and quite simply shown to be so. But applying it as the major source of lift and control in aircraft has always bugged me.

Miles Hursthouse, Nelson Lakes

Free Flight (Canadian Soaring Magazine) beat you by 31 years on this story! :-) Just got your issue - really good again - and the photography is still excellent, so kudos to John. If there is any comeback to Pomeroy's article, have a look at our 1987 version by a physics prof / glider pilot at http://www.wgc.mb.ca/sac/freeflight/87_02.pdf and subsequent comment in 87_03 and 04.

Tony Burton – Editor Free Flight

I wish to congratulate you on publishing that extremely succinct article written by Nelson Pomeroy.

Nelson has presented this misunderstood subject in an easy to follow style leaving no room for misinterpretation of his well developed and logical presentation.

I enjoy the larger format of the magazine and the excellent photographs it contains.

Roslyn J Skinner, Rotorua Gliding Club

Just received the three Soaring NZ magazines. What a treat!

They are a great presentation; congratulations. Any chance of you moving to Australia? Our magazine could do with some help!

Craig Vinall, Australia

That last edition really good!!! 10/10

Terry Delore, Canterbury Gliding Club

Keep up the fantastic work on the mag – without doubt it is the best soaring magazine on the planet!

Chris Rudge, Southern Soaring

Really enjoy the magazine, lots of interesting reading in a bright attractive format. A good mix of technical, opinion, club news and features. The photos are spectacular, what a skill to know our sport well enough to capture those images.

So, keep doing it!

Again, love the mag, am looking forward to the next one.

Ian Rowe, Gliding Manawatu

Just received the latest Soaring NZ. What an excellent job you're doing. It is a pleasure to look at and read.

Rob Neil – Editor and Publisher Pacific Wings Magazine

And finally – received by text

Soaring mag is getting even better thanks

Phill Moa Man

Smeed's Law and what it might tell us about ATC.

I would tend to agree with Neville Cameron's understandable reaction to NZ's 'Nanny State' approach to Air Traffic Control. Surprisingly a week later I came across an interesting article by Physicist Freeman Dyson about controlling WW2 bombers at Bomber Command during his war service in the UK. He says:

"Smeed (a Professor at the London College University) had a fatalistic view of traffic accidents. He collected statistics on traffic deaths from many countries, all the way back to the invention of the automobile. He found that under an enormous range of conditions, the number of deaths in a country per year is given by a simple formula: number of deaths equals 0.0003 times the two-thirds power of the number of people times the one-third power of the number of cars. This formula is known as Smeed's Law. He published it in 1949, and it is still valid 59 years later. It is, of course, not exact, but it holds within a factor of two for almost all countries at almost all times. It is remarkable that the number of deaths does not depend strongly on the size of the country, the quality of the roads, the rules and regulations governing traffic, or the safety equipment installed in cars. Smeed interpreted his law as a law of human nature. The number of deaths is determined mainly by psychological factors that are independent of material circumstances."

A bit more hunting around produced some statistics by John Staddon in an article in The Atlantic. A traffic 'free for all' has been implemented in a number of European towns (Drachten in Holland, fashionable Kensington High Street in London, Prince Charles's village of Poundbury, to name a few) where all signage and controls in high traffic areas have been virtually removed. The results, by all accounts, have been excellent: pedestrian accidents have been reduced by 40 percent or more in some places, and traffic flows no more slowly than before.

So are we in New Zealand driving (flying) ourselves in the wrong direction? Have the introduction of more rules and regulations, complex controlled airspace, transponders, Flarm, radio procedures etc, added to safety? Compare the driving environment in the US to the UK. The US has tougher rules and enforced speed limits, significantly more roads signs, many more controlled intersections, but wider and better constructed roads than the poor UK commuter. Detailed statistics show that as of 2003, fatalities per mile travelled were 36 percent greater in the U.S. than they were in the U.K. Traffic deaths per million people show an even greater disparity through 2006. A difference in any one year greater than the number of people killed on 9/11.

From local observation the introduction of transponders and wide IFR vectors in and around Control Zones has had a debatable improvement in safety, but a significant increase in frustration. A pilot who arrives at Tauranga focused on maps, radios, TCAS, reporting points and following all the rules might not be a safer pilot!!!

David Jensen. Tauranga Gliding Club

WATER LANDING.

The following happened at the Region 1 Regionals at Warren Sugarbush, Vermont, USA in June.

The following is the news paper report of the incident.

> WARREN, Vt. (AP) -- Police say two glider pilots are safe after both missed a runway and one crashed into a lake.
>
> A second glider landed on the ground.
>
> Rick Roelke of Bedford, N.H., and John Dezzuitti of Lakeside, Conn., were competing in a soaring competition when they came across heavy rains and gusty conditions Tuesday. Both men tried to land at the Sugarbush-Warren Airport but missed the runway.
>
> Roelke crashed into Blueberry Lake. Police say both men were uninjured.

They missed the runway? What really happened?

On the gliding forum rec.aviation.soaring Rick Roelke, the pilot who landed in the water described it this way:

Forced down about three miles short of home I was originally intending to land on a peninsula jutting into the lake but it was too short. It would also have been down wind so I opted for a safe landing on the water into the wind.

It all worked out fine after a big splash, and I did it mostly correct (no flaps, no spoilers, gear down, but I forgot to close the vent). After it was over the glider was floating well (as I had be briefed it would) and I got out and swam it to the nearest downwind shore. I secured it so it would not sink, and walked up this little path to assess my situation. I was rather dismayed when I found I had towed it to an island!!!

Very quickly contest personnel arrived at the far shore after a radio call from another pilot who had seen the landing. We finally got the glider to shore with inner tubes under the wings and tail boom. The only damage to the ship was a bent gear door. The radio was not working after the landing but all other electronics were. After a night at 30,000 ft in a barograph calibration vacuum chamber it was working fine the next morning. I flew the ship by 5:00 the next day.

While I don't recommend practicing this (the retrieves are a bitch) it turned out to be a good option in a bad situation...

The forum discussion then moved on to why you should have your gear down for a water landing. Roelke explains:

I had seen a briefing that was originally prepared for the contestants at the worlds in Sweden. The procedure was gear down to avoid the suction that the belly will cause. Having the gear down I think will also slow you down using a part of the structure that is designed for high drag loads. Spoilers out are bad, they can't take the load, I had neutral flaps but not dive breaks.

The other thing the briefing noted was, don't worry it will float. And indeed it did. I don't think it would stay up all day, but for quite a while. It was a rapid deceleration but not "impact" like. As to whether I went under, I don't know as I got a face full of water as I hit (I forgot to close the vent) but when I opened my eyes I was high and moist...

Photo Burlington Free Press

As well as it went, don't try this at home...

Commodore RR

WORLD CHAMPIONSHIP PROBLEM

Ross Drake reports unexpected problems with his build up to the World Championships in Lüsse in Germany in August. Just a week out from practice week he finds himself without a glider. The ASW 27 that he was supposed to be flying had been sorted out for instrumentation, comfort and other considerations. Then its owner took it flying and crashed. It has been written off. Drake has had an offer of an ASW 27 but the owner wants considerable payment (several thousand dollars) for its use for the three weeks. Drake's parents Bruce and Rae have arrived in Europe and are doing their best to help.

The World Gliding Championship Open, 18, and 15m contest begins on August 3rd.

UPDATE – ROSS DRAKE HAS A GLIDER

Thomas Wetteman has given him the use of his Ventus 2b and Schempp Hirth allowed the use of their factory to bring it up to speed. A few long days preparation and traveling saw the Kiwi team and glider arrive at the contest in time for scrutineering.

Full details of the contest next issue.

ELECTRIC UNDERCARRIAGE

DG announces a new electronic undercarriage suitable for all DG 1000s. It runs on 12 volts but more smoothly on 24 volts and DG have made it mandatory that the aircraft has two batteries. It has an emergency deployment system and a complicated retraction system, press down a toggle while with another finger press a black button twice, to ensure it doesn't accidentally retract while on the ground. Friedel Weber says, "It really improves comfort, allows even the lesser built amongst us to operate it alone without effort."

There is a video showing it in action on the DG Flugzeugbau web site.

http://www.dg-flugzeugbau.de/0-neu-e.html

"At last, a triumph for common sense."

The following letter was forwarded by Bob Henderson, President International Gliding Commission. He made the comment above.

Dear FAI Members,

The World Anti-Doping Agency (WADA) Prohibited List 2008 specifically prohibits the artificial delivery of oxygen, whereas the International Civil Aviation Organisation (ICAO) mandates the use of supplemental oxygen to counter the effects of hypoxia.

WADA agrees that the health and safety of our athletes is paramount and does not consider the transportation of oxygen in an aircraft to be an anti-doping rule violation.

FAI is therefore pleased to inform members that they may use supplemental oxygen in aircraft during FAI events. If you need any further information, please contact the undersigned.

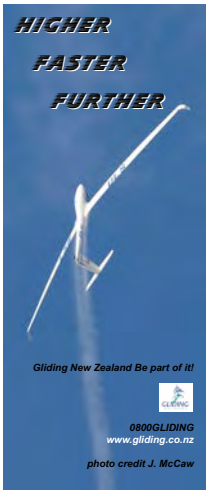
With best regards,

Rob Hughes

General Projects Manager

Fédération Aéronautique Internationale

Club Promotional Banners Now Available



Do you have a special event coming up? Are you planning a promotion for your club? How about a club anniversary? If so GNZ Promotions has some professionally designed and eye-popping portable displays for you to use for no charge other than postage. These lightweight displays feature John McCaw's exceptional glider photography, and are an easy to assemble pop-up design that measure two metres by 800mm. They are made for indoors and will really add a great addition to your event or promotion.

All you need to do is contact Steve Tollestrup our National Publicity Co-ordinator and he will ensure they arrive at your club when needed. Your cost is simply sending them on to the next club as and when required. To order contact Steve on 09 836 7968 or director@tearfund.org.nz.

DEATH OF A SOARING LEGEND

American soaring great Richard H. (Dick) Johnson died in a gliding accident on July 23. It is understood that he was acting as a sniffer plane for a contest at the Texas Soaring Association. Contact with him was lost and an aerial search located the wreckage a few kilometres from the airfield.

Dick Johnson was flying his Ventus b. He was 85. Dick had been a world champion competitor in the '60s and many times American Nationals winner. He is best known to New Zealand pilots for his test flight reports on gliders, wing configurations, turbulator tape and other variations on glider performance. Johnson's reports were widely read in SOARING and reprinted in the Gliding Kiwi.

An online condolence book can be signed through the Soaring Society of America website.

WORLD CHAMPIO

Dickinson does well in first World Contest. Flewett's results disappointing.

A second placing on day six of the World Gliding Championships in Rieti Italy promised a high place for Ben Flewett. Unfortunately an attempt to stretch the distance for an Assigned Area Task (AAT) to avoid loss of speed points led to a landout on the next contest day. This dropped him back down the placings and out of contention.

Dane Dickinson flying in his first world contest did well. He flew consistently, managing a 9th placing on day six. He ended the contest in the middle of the field, a very credible effort for a first international competition.

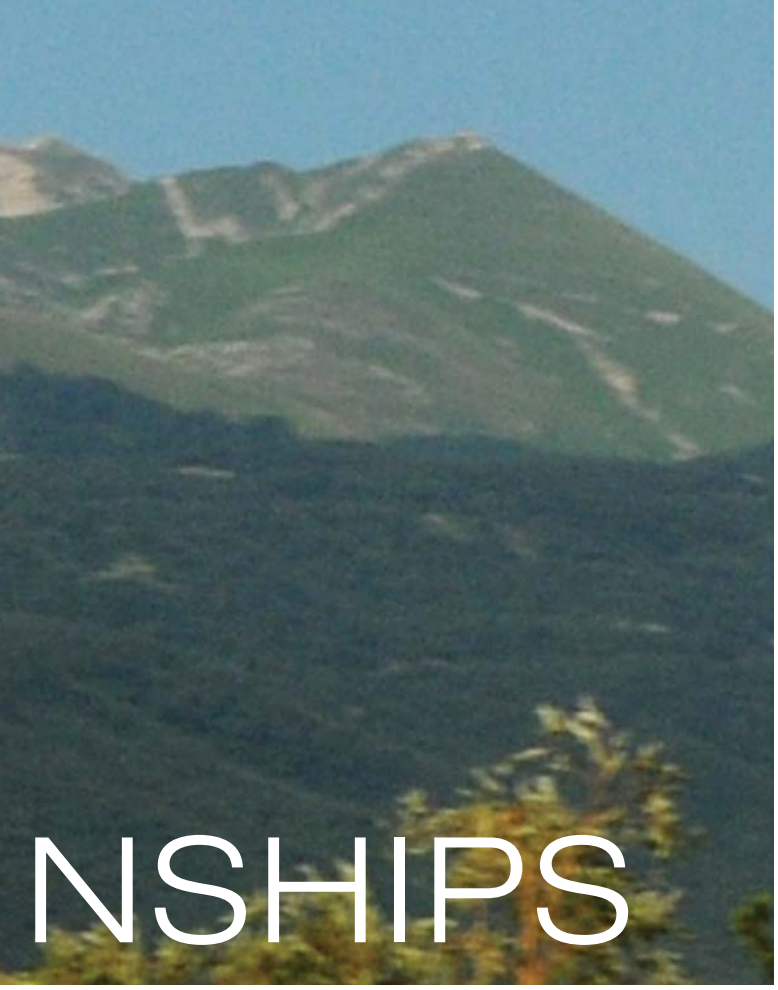
Flewett and Dickinson were both flying in the Standard class which had a field of forty-five gliders. There were a total of 109 competitors in three classes which included World and Club Class. The Open, 18m and 15m World contest is still to be held in Luesse in Germany in August. Eleven days flying were achieved over the two week contest.

Team New Zealand comprised the two pilots plus seven supporters. Team Captain was Sue Wild with crew members of Warren Dickinson and Tony Flewett. Wing polishers and advisors were Terri Dickinson, Russell Schulz, Bill and Jan Walker. The team stayed in a rambling farmhouse, parts of which dated back to the 11th century, ten kilometres from the airfield.

Briefings were very well run throughout the contest, with meteorology provided by the military. Social events also appeared to have been well run and frequent. However the final dinner was oversold, which prompted Flewett to leave the food queue and buy pizza for the Kiwi and British teams. The team blogs carry lists of food – salamis, prosciutto, cheeses, pommodore, gherkins, bruschetta, crostini and more– usually just describing lunch.

Temperatures at launch time were around 35°C and the team quickly learnt to douse their hats and seats with iced water. Canopies needed to be shaded until just before hook-on, otherwise they wouldn't close.

Thermal and ridge were the predominant lift with occasional wave and convergence caused by the sea breeze from the east and west coasts of Italy. On day six this convergence was 150 km long



NSHIPS

allowing for fast times. Ben and Dane both climbed to 10,500 feet in this above the Appenines. Ben's speed for the day was 132 kph while Dane had managed 125 kph in what he described as a "great racing day".

The following day, a rest day, the team visited Grand Sasso where Mussolini had been imprisoned, and from which he was liberated by a commando raid during the war.

Day seven was disastrous for Flewett. A three hour AAT task was set and he was doing well. With a speed of 135 kph he was on track to place high for the day when he reached the northern circle. But to run home from here would have meant landing 15 minutes early and decreasing his speed to around 120 kph. To fill out his time he had to track further into the circle, under dark clouds. The heavens opened and he was forced to land out. Dane, flying further back, was able to clip the circle and nurse the ridges to get home in 13th place. The day had upset several of the top contenders with local hero Georgio Galetto coming in at 27th and Australian Bruce Taylor who had been holding in the first five places also landing out. Flewett was to have two more landouts for the contest and while Dickinson had a few close calls he always made it home.

The New Zealanders found it extremely annoying that for the first part of the contest the launch grid remained the same, with the World Class at the front and the larger standard class gliders at the back. This was done for safety reasons as it was said that there wasn't enough room to pull the fully laden larger gliders from the front of the grid. It meant that by the time the field was launched the standard class had the shortest amount of day left while they had the longest tasks. After protest, this was eventually changed on day five after Georgio Galetto also complained.

On the day of the closing ceremony the weather came right with Cu's of 8-9000 feet in the valley and mountains. To their surprise the New Zealand team received a prize at the closing ceremony, for being the team which had travelled the furthest to get to the contest.

Further information and the team blogs can be found on the GNZ website www.gliding.co.nz
Official results are at the Championship website http://wgcrieti.it


WORLD GLIDING CHAMPIONSHIPS
RIETI2007/2008
WORLD GLIDING CHAMPIONSHIPS
RIETI2007/2008


OH-930
N3

RESULTS

WORLD CLASS – NUMBER IN CLASS 16			
1.	Laurent Couture	France	9083 points
2.	Mario Schupfer	Austria	9021 points
3.	Gilles Navas	France	8948 points
CLUB CLASS – NUMBER IN CLASS 40			
1.	Matthias Sturm	Germany	8852 points
2.	Killian Walbrou	France	8817 points
3.	Peter Temple	Australia	8671 points
STANDARD CLASS – NUMBER IN CLASS 45			
1.	Michael Buchtal	Germany	9367 points
2.	Mario Kiessling	Germany	9200 points
3.	Peter Hartmann	Austria	9183 points
23.	Dane Dickinson	NZ	7731 points
27.	Ben Flewett	NZ	7181 points

NZ receives award. Dane Dickinson receives the trophy on behalf of the NZ team – for being the team that has come the furthest to compete.

DAY	1	2	3	4	5	6	7	8	9	10	11
Task type Racing /Assigned Area Task (AAT)	racing	racing	racing	AAT	racing	racing	AAT	racing	racing	AAT	racing
Task distance (km)	353.9	239.5	403.9	262.7/472	377.4	419.8	268/489.5	475.8	317.2	179.5/327.8	395.7
Task time				3 hrs			3 hrs			2.30 hrs	
Day Placing Flewett	**21**	**13**	**25**	**12**	**15**	**2**	**39** L/O	**18**	**37** L/O	**25**	**39** L/O
Day Placing Dickinson	**32**	**22**	**30**	**17**	**35**	**9**	**13**	**29**	**19**	**21**	**26**

WORLD CLASS PHOTOGRAPHER

The official photographer of the Rieti contest was local aviation enthusiast Elisa Domeniconi (24). Elisa has a passion for photography, has worked as a freelance photographer for local newspapers and is studying Computer Science at the University of Rome. Check out her other contest photos on the Rieti web site. Elisa has recently started work in the field of aviation photography and is in the process of building her website.

http://www.elisadomeniconi.it/

Kiwi team

Flewett crew

Final March

Tony, Ben and Dane on the last day

DG ANNOUNCES:
THE MANDL AIR EXTRACTOR

Hot off the press from DG comes news of a simple device that offers a dramatic increase in glider performance.

Photos courtesy DG-Flugzeugbau

Where does the air go that comes into the cockpit via the vents? Clemens Mandl, engineer for the LS10, was asked this question and decided to find out. The results were astonishing. First of all Mandl worked out whether the pressure in the LS10's cockpit actually changes when you open or close the vent. The result was that opening the vent caused an increase in pressure of e.g. 0.5 mb at 110 kph (54 kts) and 2 mb at 200 kph (108 kts). This proves that the incoming air cannot exit the aircraft without resistance.

It was thought that air would leave LS aircraft via a 40 mm hole in the back of the tail fin that had been designed for this purpose and from around the rudder. In practice it was found that the mylar seal on the rudder prevents this. Some of the air also flows into the wings. The DG-808 has sealed wings, however on LS gliders some of that air flows out at the aileron connections and causes vortices. Air flowing out from the canopy gap also causes huge disruption of the laminar flow over the aircraft.

Clemens Mandl asked, How can I guide the cockpit air outside in such a way that it:

- can flow out without causing any undesired high pressure,
- causes a lower pressure which improves the flow
- and as a side effect improves the effectiveness of the vent for the pilot?

The first tests of a prototype system showed lower cockpit pressures, from 1.5 mb at 80 kph (43 kts) to 5 mb at 200 kph (108 kts)! The next step was to fly two identical gliders next to each other in still air, one with and one without the air extractor and see if there was a difference in performance. Two LS10's were prepared and 'calibrated'. They were flown side by side with vents covered to ensure that they did both perform the same. Once this was done other flights were carried out with the extractor on one uncovered. Trials were done with the [*air intake*] vent opened and closed. The results were spectacular.

- Even with the vent closed, the extractor improved the performance by approx. 3%.
- The performance did not really change when the [*extractor*] vent was uncovered on a glider with the extractor fitted.
- On a glider with the extractor, the performance went up when you opened the vent – by more than 4.5% at 160 kph (86 kts).

This is the equivalent of more than two points on the L/D, or almost one 'glider generation'.

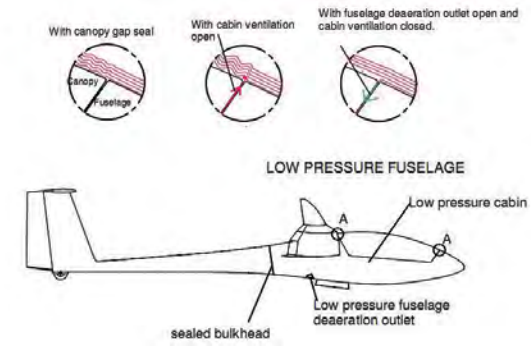
These are early results and more work needs to be done to quantify and standardise these findings. It is however a very exciting finding.

How Does it Work?

DG admits that at the moment, some of their answers to that question are still guesses.

They say:

- We know that it does increase performance.
- We also know that the pilot comfort is increased due to a more effective vent. In flight you can hear a slight sound from the extractor, but this was not felt to be distracting or irritating.
- We are fairly certain that guiding the cockpit air outside in a controlled manner stops the generation of vortices at all sorts of openings on the glider.
- The main effect, we think, though, is probably caused by the deflection of the airflow above the canopy gap. You can see this very clearly in the picture. If we are right, then the main effect of the Mandl extractor is the generation of lower pressure, which causes the detaching airflow at the canopy gap to become laminar again. Over the next months we shall investigate this in a lot more in detail. Wind tunnel and paint tests will help.



To summarise

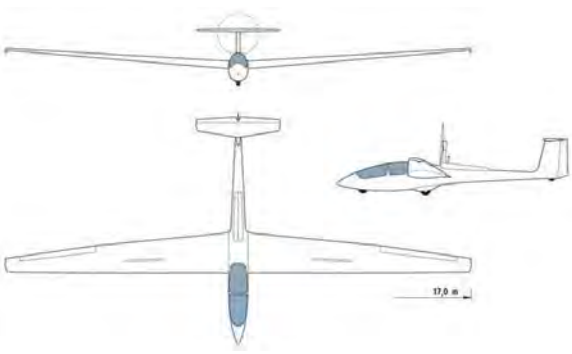
The theoretical L/D of a glider does not seem to change because of the Mandl air extractor. The theoretical L/D of the LS10 was calculated as 50:1 at a weight of 525 kg. This can't be achieved in reality, because such things as disturbances due to cockpit air and canopy gap are not taken into account in the calculation. The actual L/D in flight unfortunately does not quite match the theoretically possible one.

However, the difference between the theoretical and the actual L/D will be greatly reduced thanks to the Mandl extractor. And this, DG says, is what matters.

World wide no other fiberglass 2-seater has turned more students into solo pilots. Strangely however we do not have any in New Zealand. That may be about to change. SoaringNZ knows of at least one NZ club that is investigating the purchase of one. The following story on the self-launcher version was sent to us by Bernard Eckey, the Australian Agent for Schleicher gliders.

ASK 21 – NOW AVAILABLE AS S

No other glider has carried more new pilots through their first flight and cross country training to competition flying than the ASK 21 from Schleicher. Its attractive appearance paired with low maintenance requirements and pleasant flying characteristics have already led to almost 850 orders for this robust and versatile trainer. Although the demand is still as strong as ever a motorized version (called ASK 21Mi) was recently introduced. It comes as no surprise to insiders that Schleicher has opted for the rotary engine first developed by Mid West and now produced by Diamond Aircraft. It is already powering all self-launching gliders made by Schleicher including their open class models ASW 22 BLE and ASH 25 Mi.



Now in production for over 10 years the rotary engine has earned itself a first class reputation for reliability and dependability. It is just ideal for self launching gliders due to its compact design, its very high power output and a complete absence of vibration. Many glider pilots have fallen in love with it due to its simple engine operation and a very low noise level. The engine not only comes with dual ignition but is also more user friendly compared to two-stroke engines. It burns normal super fuel instead of AVGAS or 2-stroke mixture. Engine lubrication is accomplished by an oil pump which injects oil where needed. All these advantages make this rotary engine ideal for a glider like the ASK 21Mi. The mechanical propeller stop makes the extension and retraction of the engine easy and avoids a dependence on sensitive electronics, sensors and switches. For training purposes dual engine controls in front and back seat are provided.

The drive belt is only put under tension when the propeller is extended. This design avoids a permanent load on engine and belt and also allows the engine to remain stationary, mounted in the noise shielding fuselage. This brilliantly simple and convincing concept also allows the engine to be permanently connected to a large volume silencer. A big step forward, not only

ELF-LAUNCHER

for the environment but just as importantly for maximum pilot comfort. In fact noise levels were measured to be well below the already stringent limits in Germany.

The fuel injected engine delivers a generous 56 hp of power and together with a new propeller the ASK 21Mi features an impressive takeoff performance. For example, the ground run on a grass runway is only 250 metres and the initial climb rate at maximum takeoff weight is as high as 2.7 m/s (5 kt). Extended power cruising for ferry flights or even flying through controlled airspace at an assigned altitude presents no problem to aircraft or engine – another most welcome advantage over conventional two-stroke technology.

Fuel consumption might not be a decisive issue on a motor glider, but a fuel burn of only 14 l/h of standard unleaded fuel is very welcome news indeed. It makes the ASK 21Mi by far the most economical self launching glider and gives it a range of 500 km on the standard 26 litre fuselage tank. If that is not enough, additional wing tanks are available on request.

When required the entire drive unit can be easily removed from the fuselage in just a few minutes. Removal requires undoing three mounting bolts, unplugging the electrics and separating the fuel line. However, 10 years of operating experience with hundreds of such drive units all over the world has already earned this power plant an enviable reputation. Contrary to conventional 2-stroke technology it is not subject to a time limit and it is also not necessary to dismantle the engine for an inspection after 6 years. Instead, after 150 engine hours (1800 launches of 5 minutes each) only a detailed external inspection is necessary which includes an examination of the combustion chamber through the exhaust outlet. Provided no wear is found on the rotor seals the engine can be operated for another 150 hours up to its total design life of 1000 hours. All in all, the rotary engine and drive assembly are a huge step forward in terms of maintenance, power to weight ratio, reliability, fuel consumption, noise emission, power output, ease of operation and pilot comfort.

A low wing loading of only 32.6 kg/m² (at a payload of 90 kg) ensures that the ASK 21Mi retains its tolerant low speed behaviour and forgiving flight characteristics. While on the ground the aircraft rests on both main and nose wheel, aiding directional stability during takeoff and landing run and easing trainee workload. When empty the glider is finely balanced on its main wheel eliminating the need for a tail dolly for ground handling.

The glide ratio of the ASK 21 was independently measured as 34:1. However, more important than the glide ratio in a training aircraft are operating speeds and maximum payloads. Even when flown dual the ASK 21Mi has a stalling speed of approx. 68 km/h (37 kt) – quite remarkable considering that the aircraft is certified for 150 kt. A low empty weight of only approx. 440 kg and a maximum payload of 205 kg clearly put the ASK 21 in a class of its own. The aerobatic capabilities of this trainer are hardly compromised by the engine retrofit. The aircraft has not only become a popular choice for pilots interested in independent recreational flying but also for operators looking to recover their capital outlay through passenger flights. But not only that, some European clubs are moving away from traditional winch or aerotow launching and train their new pilots on this self launching glider.

Maintenance and Service Life

Despite the large production number no maintenance problems have emerged and no airworthiness directives have so far been issued by the authorities. Due to the excellent service history of the ASK 21 it was recently granted a service life extension and is now the first glider ever to be certified for 18000 hours of service – clear proof of the high quality standard of Schleicher gliders in general and the ASK 21 in particular.

TECHNICAL DATA ASK 21 MI

Span	17 m
Wing Area	17.95 m²
Wing aspect ratio	16.1
Fuselage length	8.35 m
Cockpit height	0.90 m
Cockpit width (clear width)	0.68 m
Empty mass with min. equipment	approx. 495 kg
Max. take-off mass	700 kg
Wing loading (90 kg payload)	32.6 kg/m²
Wing loading (max.)	39.0 kg/m²
Max. payload in cockpit	205 kg
Maximum speed	280 km/h
Minimum sink (single-seated)	0.65 m/s
Glide ratio (@ 90 km/h)	34
Engine Power	41 kW (56 hp)
Engine displacement	294 cm³
Volume of fuselage tank	26 litre
Take off distance on grass	approx 250 metre
Climb rate (single seated)	approx 2.9 m/s
Climb rate (double seated)	approx 2.7 m/s
Cruising speed	140 km/h
Fuel consumption in full climb	approx 19 l/h
Fuel consumption in cruise	approx 14 l/h
Range (using saw-tooth method)	approx 500 km

For a free CD or further information on the aircraft contact: eckey@internode.on.net

EMERGENCY LOCATOR BEACONS

Rodney Bracefield, Training Manager of the Rescue Coordination Centre (RCCNZ) gave a presentation to delegates at the AGM. The following is a précis of the presentation.

The New Zealand Search and Rescue Region is huge. It covers approximately 30 million square kilometres, mainly ocean. It stretches from 5 degrees south of the equator to the South Pole. It begins half way to Australia and reaches halfway to Chile, encompassing the Islands of Tonga, Niue, Samoa, Tokelau, American Samoa, Cooks and Norfolk Island.

The advent of emergency locator beacons has greatly increased the chance of rescue in emergency situations. Beacon Types:

- EPIRB – Emergency Position Indicating Radio Beacon (maritime)
- ELT – Emergency Locator Transmitter (aeronautical)
- PLB – Personal Locator Beacon

Frequencies – 406 MHz, 243 MHz, 121.5 MHz

They are to be used when there is grave and imminent danger requiring immediate assistance.

In the last 24 months there have been 2351 distress beacon related alerts. These break down to Aviation – 609, Land – 138, Maritime – 781 and unknown – 823. The unknowns may well be due to accidental activation that are then shut off without further notification.

How do the beacons work? Simply, they signal satellites.

COSPAS-SARSAT provides an international satellite system and takes the 'search' out of Search and Rescue. COSPAS satellites are Russian while SARSAT (Search and Rescue Satellite Aided Tracking) are American. There are two types of satellite – see diagram. GEOSAR are at a fixed point 36,000 km above the equator and monitor up to +/- 75°latitude. There are four operational.

Presently there are six LEOSAR satellites. They are polar orbiting at 850 to 1000 km in altitude. Each orbit takes 100 to 102 minutes and the earth moves 26° longitude per orbit. This provides global coverage. As the LEO sweeps overhead and picks up a beacon it uses the 'Doppler shift' in frequency to pin point location. It stores the information and passes it to the first Local User Terminal (LUT) station it passes. Because LEO satellites are closer to the beacon than GEO satellites they receive a higher power level, which increases the probability of beacon detection.

Determining position is not as easy as it seems. The satellite cannot tell which side of its path the signal is coming from. It therefore gets two Doppler positions and requires a second pass to verify where the signal comes from unless the beacon incorporates a GPS function.

Advice for New Zealand Glider Pilots

If you know that you are going to crash or ditch please activate your 406 MHz beacon early. This enables RCCNZ to obtain a beacon signal before impact which may break the aerial, disable the beacon or sink with the aircraft.

Register your beacon at www.beacons.org.nz. Registration is free. Once registered you will receive a confirmation. Please check that the details that have been entered are correct. Remember this is your lifeline to an emergency notification.

Beacons purchased in New Zealand should have the New Zealand country code of 512 embedded in the beacon Hex Id identification number. When registering your beacon, ensure that the 15 Figure Hex Id or UIN Number is complete and accurate. This alpha numeric code is the one the beacon transmits to the satellites and

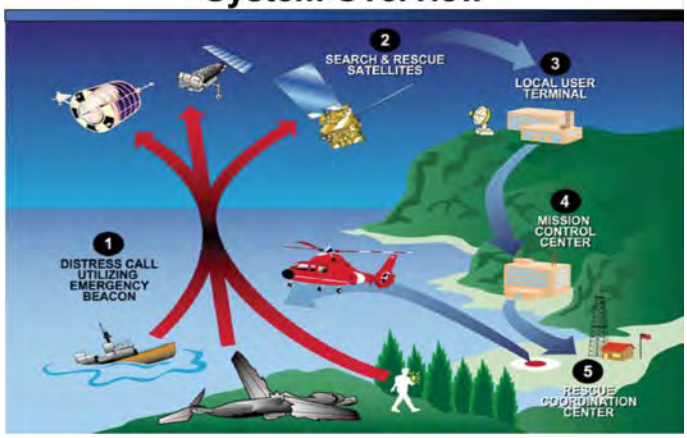
Satellite Types

Two types of operational satellites:

Geosynchronous Earth orbiting (GEO) satellites

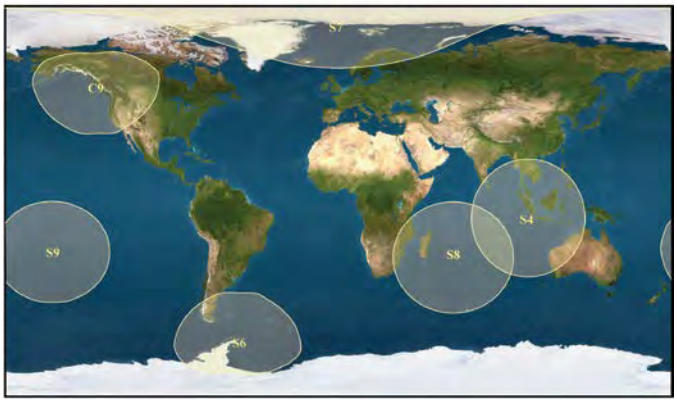
Low-Earth orbiting (LEO) satellites

COSPAS-SARSAT System Overview

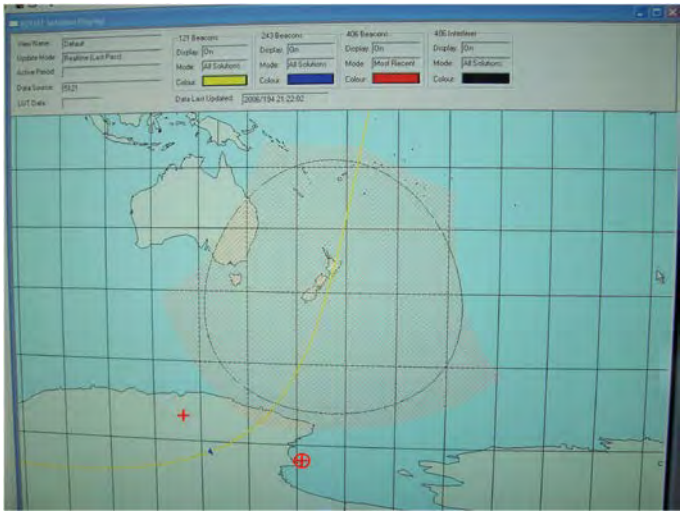


Simply stated, if a distress beacon is activated by a vessel, plane or person in distress, the beacon signal is detected by a satellite. The distress information is downloaded to a Local User Terminal or LUT and then forwarded to a Mission Control Centre. The nearest Rescue Coordination Centre in whose area the beacon position is located is immediately notified, and rescue resources are despatched to the distress beacon location.

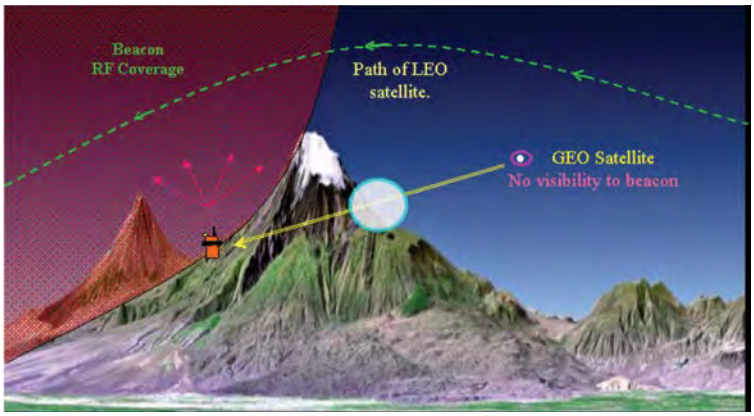
LEOSAR Coverage



This is an example of the maximum coverage provided by the LEO satellites at any one time if they were to be frozen in position.



A screen shot of a LEO pass over NZ with a 406 beacon detected with two possible positions (red dots left & right of track in Antarctica)



Beacon is shaded by the mountains until the LEO satellite is nearly directly overhead.

identifies you as the one in Distress. Beacons can be used world wide. If, however, you are going to be overseas for a period of time it pays to advise RCCNZ of your travels and in this way we can provide a more immediate response.

If you sell your beacon please deregister it and have the new owner reregister it in their name.

If you lose or have your beacon stolen advise RCCNZ 406registry@maritimenz.govt.nz and your file will be annotated with a message that this has happened and the RCCNZ will notify the Police on any subsequent beacon activation.

When using your beacon endeavour to have as much clear sky as possible. This is particularly important if the beacon has GPS. It takes time for the GPS to 'initialise' and the more satellites it can see the faster and more accurate will be the position that is passed to RCCNZ.

Do not stand over or near your beacon if possible. This will shield both the outgoing and any in-coming GPS satellite information.

Do not expect a helicopter to appear over the horizon within fifteen minutes. It may take up to five hours to determine your position accurately enough to send a Rescue Unit – this is dependent on your beacon type and the path your emergency signal takes via the satellite system to the RCC.

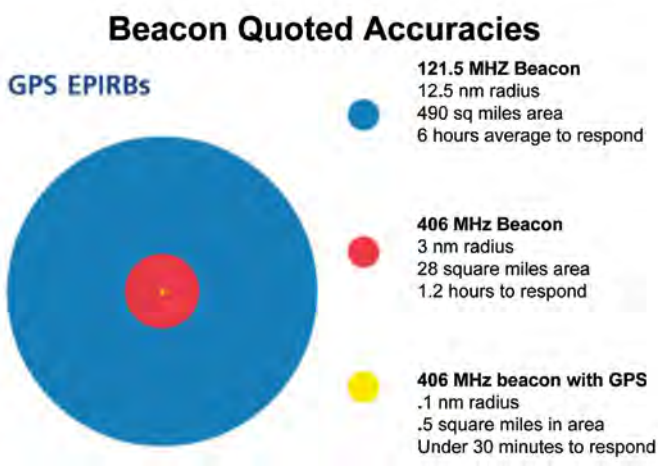
Be prepared to survive any situation for at least forty-eight hours.

If it looks like you may be going to get into trouble use your beacon early. This provides RCCNZ time to plan your recovery. Obviously weather and night time play a large part in you getting into trouble but they also often limit the timely type and quality of the response that can be provided.

If you inadvertently turn on your beacon please phone the Police (111), ACNZ on radio or RCCNZ (0508 4 RCCNZ or 04 577 8030) and advise that you have had the beacon on and then turn it off. If you can not make phone or radio contact, leave it on. RCCNZ will respond. If you turn it off and do not advise anyone that it has been activated RCCNZ will be looking for someone with your beacon.

When buying a beacon seriously consider paying the extra to purchase one with a GPS function. Beacons with this capability transmit your position along with your beacon code and therefore RCCNZ do not have to wait for a second pass of a satellite to determine your position.

A crashed aircraft in bush can be very hard to spot.



Cross country glider flying is by its nature somewhat random. Will you find a thermal on track? How long will you spend 'scratching around' at lower levels looking for the climb that will allow you to progress to a chosen point?

HOW ARE YOU DOING?

By Roy Edwards

For many pilots, where they are going is dictated by the conditions and not by a predetermined flight plan.

In this safety conscious world of ours, how do we track our progress in such a way that a land based crew can see where we are and whether we need help? Currently the movement in New Zealand uses radio to give an 'ops normal', a very rough indication of where you are at a point in time. This is usually given hourly and it doesn't take a mathematical genius to work out that it isn't a very accurate method of letting the ground crew know where you are if 'the brown stuff hits the round thing'.

The introduction of emergency beacons has given pilots a means to alert rescuers in an emergency. This emergency has been defined as clear and imminent danger. In our terms of reference, a 'crash' or 'midair'. Having run a number of competitions in New Zealand since 2002, I have been involved in a number of serious emergency situations and throughout this time I have never had an emergency beacon set off!!!! Either the pilot has been fatally incapacitated or the surviving pilot has done the 'tuff Kiwi' thing and either phoned the retrieve crew or stoically walked to a phone. Or they waited by their broken glider. NOBODY thought to trigger the emergency beacon as they didn't seem to think things were 'that bad'!!!

Recent developments in technology have brought us to a point where we can solve these conundrums. This technology combines a GPS receiver and a Satellite Phone sending 'txt' messages. Currently there are two options available that I am aware of.

a) SPOT Messenger: designed for trampers and fishermen, this small handheld unit generates a message which is sent to a predefined email address (and in other countries generates a cell-phone message). This message contains the latitude and longitude of the unit together with its serial number and time. There are three buttons: 'OK' as in I'm OK at this point, 'Help' as in I need some non urgent assistance, and '911' as in I need emergency assistance. A service is available that will automatically trigger the 'OK' message every 10 minutes – excellent for automatic flight following.

b) Spidertracks: designed for aviation users and much more sophisticated. Designed by a good kiwi bloke, these units have the sophistication to generate one minute 'pings' when going in to a dodgy location (prior to landing out in rough country for instance). The system will not report these pings unless three one minute pings are not received, at which time it automatically generates an emergency message. Spidertracks has many more sophisticated reporting options but they come at a significant cost.

It would appear that we are at the beginning of this GPS interactive, tracking technology. I have acquired a SPOT messenger to trial but in the years to come I am sure there will be other competitors (remember how Garmin started). Other overseas Gliding organisations are also trialling the SPOT which only came on the market last November!

My interest is to try and get a SPOT or equivalent unit in every Glider in the 2009 Nationals in Omarama. No more worries for pilots out of radio range to let everyone know where they are. At the end of the day the Contest Director will be able to see where Eric Gosse is, as end of civil twilight approaches. As an aside the HELP button could be used to indicate a landout. These positions are reported on Google maps, so the retrieve crew will have very precise directions as to how to locate the landout position.

And of course finally, those back at base will be able to track the action.

How are you doing? I'm OK.

FLYING FROM PARAPARAUMU

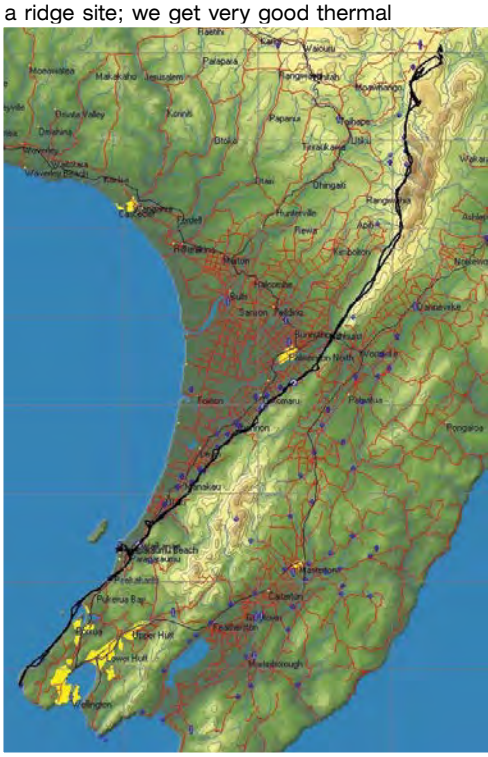
by Tony Passmore and Vaughan Ruddick

Crossing Porirua Harbour

In this issue we start a series that will eventually cover the country. We want to know how to fly the length of New Zealand. We won't be doing it in one enormous long flight, just "average" cross country flights from "average" airfields that anyone with a bit of experience might expect to achieve. SoaringNZ has asked some of our top pilots to share their favourite flight paths around their home area. In time we will discover the best way to soar the whole country. Enthusiastically starting from the middle are Vaughan Ruddick and Tony Passmore with 300 plus kilometres from Paraparaumu.

Paraparaumu has to be one of the most underrated gliding sites in the country. We get to fly cross country nearly all year round and in nearly all weather conditions because of the way in which our ridges/ mountains assist the formation of energy lines.

Paraparaumu is not just a ridge site; we get very good thermal conditions too. Thrown into the mix are also valley / sea breeze convergences. We can fly from the Hutt Valley Ranges behind the Wellington harbour right up to the Napier – Taupo Rd. Cloudbases of 5000-6000 ft are common in the south, rising up to 7000-10000 ft in the north. And because we are so close to a number of main centres we also get lots of trampers to play with when cruising the mountains.



If that were not enough, we also get a good Easterly wave that forms, making flights of over 300 km possible (you can also ridge soar on the

Palmerston North

Manawatu Windmills

Mt Hector

Lake Wairarapa

east side). If the easterly is too light for wave to set up, we then get a convergence along the coastline from Levin – to the north of Wanganui.

Kapiti Island sits just a few miles off the coast and it creates some interesting effects. In the right conditions it produces some monster waterspouts and also produces a nice lee wave which we have taken to over 17,000 ft from here. It makes the downwind dash to the mighty Wairarapa wave very easily accessible.

Paraparaumu is most famous for the ridge-running capabilities that it produces in westerly conditions. You can, in one day, run down the beach above the surf, flat out ... and then a couple of hours later be smoking at 15-20 thousand feet in the wave up past Napier. Great stuff!

Here follows a brief description of the standard (milk run) 300 km-500 km ridge flight out of Paraparaumu.

The tow out of Paraparaumu on runway 29 in a good westerly of 20-30 kts can be quite interesting, with take off straight into the lee of Kapiti Island.

Normally we tow to 1000-1500 ft downwind of the airfield, release and dive onto the ridge, then turn right heading south onto the Paekakariki lookout ridge. Arriving there at the lookout/carpark level of around 600-800 ft, we give the locals a bit of a show. Then it's pull onto the main ridge and head south along the sea cliffs – flat out. It's an amazing feeling running so close to the nearly vertical faces in smooth strong 6-10 kts ridge lift. Usually one big pull up is all that's needed to climb back to 1500-2000 ft to cross the Porirua harbour 'gap' (calling Wellington Tower to transit through their control zone). On the other side it is back onto the cliffs that run down to the bottom of the North Island, where the ferries cross the Strait.

At the bottom is the Terawhiti turn point and from there we head north, running the same track as we did southbound. We climb again to cross the harbour and then are back onto the Pukerua - Paekakariki ridge. At Paekakariki we cruise/climb back to 2,000 ft to cross back onto the ridges behind the airfield (you have to be a bit careful around here as sometimes the wave from Kapiti can dump on the ridges). So far: a distance of 110 km in about 35-45 minutes.

Now it is on to the Waikanae ridge which absolutely rocks, sometimes the pressure wave off this goes to over 10,000 ft.

From here we cross the Otaki gap/basin where there are a couple of choices. If the cloudbase is high you can run the 3,000 ft back ridges, or if the cloud is low you run the 1,500 ft front ridges. The problem through here is that there is a lot of disturbance upwind of the ridges, so these particular ridges don't work that well. We just bounce through these as quickly as possible and try to get onto the Levin ridge, which rocks all the way to Palmerston North and you can arrive at low. Here we climb as high as we can to cross the 40 km Manawatu Gorge Gap. An ATC clearance through the Ohakea airspace is required, but we are only in airspace for the gap crossing.

This 40 km gap between the Tararuas and the Ruahines is a good playground for the wind. Through here the wind is quite often 40-50 kts and the 80 or so wind turbines with blades of over 100 ft

Smokin' Copa

make for quite an interesting ride when you get down in between them. (This sorts the Men from the Boys.) The ridge also drops away here to nothing, which makes for slow going.

Once across, we get established onto Whariti Peak around 3,300 ft which is the start of the Ruahines which climb to the north up to 5,500 ft. (You have two choices here depending on conditions. You can run the ridge north or jump over the back and into the Hawkes Bay wave and climb to 15-20 thousand feet and continue north or run south back into the Wairarapa. Another story.)

Running north along the ridges we cruise until we arrive at a place called Umutoi, where the ridges get steeper and rise to 5,000 ft. The ridge works really well here and we climb as high as we can (depending on cloud base), as we will have a 10-15 km push into wind to get to the next ridge (the Rangi ridge). Here we are running into rising ground which can make for an interesting ride with the cloud-base lowering and the lee effect of the upwind ridge.

Once established on the Rangi ridge we enter the Kawhatau Valley, made famous by the Phil Pearce annual flying camp which is held in February each year. Here Mother Nature can play a little trick, as quite often the wind just completely stops. You can be on the ridge 20 km back south with 30 kts and then you come into the Kawhatau and the wind drops to nothing (it has caught a few people out in the past).

Exiting the Kawhatau valley to the north, we cross into the Mokai valley/ridge. Here the ground level is 3000+ ft in places, so a high cloud base is required.

Then it's on to the last hill/ridge (Aorangi) until the Kawekas and Kaimanawas. A gap of around 50 km and the start of the central plateau (Trev Terry territory). We usually just glide out and glide back to a turnpoint 10 km to the north on the Napier-Taihape Rd.

Then we basically fly the reverse track of the northbound leg: south, back down the ridges to Whariti where we climb as high as we can for the re-crossing of the Manawatu Gorge gap. The crossing to the south is usually easier than the northbound one, because of it being downhill, whereas on the northbound you are flying into rising ground.

We try and leave Whariti on a final glide to the Linton ridge and then we are back into the good strong ridge lift. We truck along down the Tokomaru ridge to Shannon, and then have a little push back into wind to the Levin ridge. Here we try to climb as high as we can to set up a glide for the Waikanae ridge and back into strong lift. By the time we reach the end of the ridge we have an easy final glide in to Paraparaumu.

There you have it, an easy (but can be exciting depending on how hard you push) average ridge day from Paraparaumu.

Come and try it one day. We'd be happy to show ya around.


Vaughan Ruddick with daughter Leah


Tony Passmore

Vaughan Ruddick and Tony Passmore have been gliding since the mid '80s. They have honed their skills in Wellington's variable conditions.

GNZ AWARDS APRIL — JULY 2008

QGP			
1857	William Deans	Canterbury	
3013	Robert Locket	UK	
3014	Richard Brickwood	UK	
3015	Dylan Watson	Hauraki	
3016	Bram Bronsvoort	Netherlands	
3017	David Bailey	UK	
3018	Anthony Bush	Canterbury	
3019	James Pirrit	Piako	
3020	Keith Irvine	Piako	
3021	Mark Drayson	Piako	
3022	Christopher Norman	Wellington	
3023	Tim Leslie	Omarama	
3024	Ian Malins	AKL Aviation	
3025	Paul Ellison	Tauranga	
3026	Michael Austin	Whangarei	
3027	Ricco Regler	Kaikohe	
3028	Tobias Read	Canterbury	
SILVER HEIGHT			
Oliver Winkler	Omarama	02/01/08	LS4
Tim Leslie	Omarama	26/01 08	Astir
James Pirrit	Matamata	27/01/08	Astir
Matts Henriksen	Omarama	12/01/08	Grob 103
Callum McCaw	Omarama	12/03/08	LS 6
Peter Shields	Omarama	26/01/08	Hornet
Alex McCaw	Omarama	13/01/08	Grob
Michael O'Donnell	Kawatau	06/02/08	Libelle
SILVER DISTANCE			
Oliver Winkler	Omarama	26/01/08	LS 4
Tim Leslie	Omarama	26/01/08	Astir
Robert Sherlock	Omarama	18/01/08	LS 4
April Rumsey	Lake Station	05/01/08	Ka 6cr
Callum McCaw	Omarama	11/03/08	LS 6
Peter Shields	Omarama	26/01/08	Hornet
Michael O'Donnell	Te One	28/12/07	Libelle
SILVER DURATION			
Stephen Toms	Matamata	09/03/08	PW 5
Warwick Walbron	Paraparaumu	07/03/08	PW 5
Oliver Winkler	Omarama	28/12/07	Grob 103
Tim Leslie	Omarama	27/01/08	Astir
Alain Marcuse	Paraparaumu	08/03/08	PW 5
Mats Henriksen	Omarama	12/01/08	Grob 103
Peter Shields	Omarama	29/01/08	Hornet
Alex McCaw	Omarama	13/01/08	Grob 103
Michael O'Donnell	Phynns	08/02/08	Libelle
SILVER BADGE			
1120	Peter Shields	Otago	
1123	Oliver Winkler	Canterbury	
1124	Tim Leslie	Otago	
1125	Robert Sherlock	Canterbury	
1126	Callum McCaw	Canterbury	
1127	Michael O'Donnell	Manawatu	
GOLD HEIGHT			
	Oliver Winkler, Omarama	02/01/08	LS 4
	Callum McCaw, Omarama	12/03/08	LS 6
	Paul Jackson, Omarama	07/01/08	Janus
DIAMOND HEIGHT			
396	Mark King, Otago	26/11/07	ASW 28
397	Callum McCaw, Omarama	12/03/08	LS 6
DIAMOND GOAL			
316	Russel Jones, Drury	30/01/08	Cobra
317	William Mace, Matamata	07/02/08	Lak 12
1000KM CERTIFICATE			
37	Nigel Maxey, Omarama	12/01/08	DG 300

NEW AWARDS OFFICER

Edouard Devenoges is now the GNZ Awards Officer.
Ed's contact address is gnzawards@xtra.co.nz
40 Eversham Road, Mt Maunganui 3116.

Soaring NZ

Vaughan Ruddick soars above the Kapiti Coast

Photo Tony Passmore

PURPOSE BUILT BUDGET GLIDING SIMULATOR

by Bill Mace

Some time ago, while instructing, it occurred to me that it would be of great advantage if I could stop the exercise we were doing in mid flight, and talk about it while the situation was fresh in our minds. It would also be beneficial to repeat the exercise a number of times until the student had nailed it. The ability to repeatedly show them what "looks about right" for the angle down to the landing area/aiming point etc. would also be useful. In other words, I could see that a gliding simulator would be both an efficient and cost-effective tool for pilot training, saving students time and money and ensuring they understood what was required and how to achieve it. A little research showed that a ready built unit would be too expensive – another glider could be purchased for the price. I couldn't see anyone going for it.

I decided I would be prepared to put the time in to develop one if the Matamata Soaring Centre (MSC) would back the idea for use around member clubs. Placing ownership with the MSC would allow it to be more widely and frequently used, and the smaller clubs could benefit without great expense.

> "A number of instructors from different clubs have had a flight, and all have been suitably impressed. Adrian Cable couldn't resist rolling inverted on his first flight."

I set some criteria for the project:

- The simulator would have to be realistic from the position of the pilot flying it. This would require a reasonable field of view, preferably one that allowed the pilot to view back to the wings and also up and down to allow for the frequent angles of bank, especially in the circuit. The controls would have to be in the right place and operate in a similar manner to those in real gliders in order for students to feel "at home" and develop the right response automatically when wanting a control – colour coded and all.
- Access in and out had to be easy, for I believed some of the older less agile or health impaired pilots would want to be able to easily take it for a flight without having to scramble up from floor level or climb over the sides.
- There had to be provision for the keyboard and mouse to operate the computer from the cockpit, and preferably be wireless so an instructor can pause or alter conditions during a flight.
- The flight characteristics of the simulator would have to reflect the real thing closely.
- In order for the simulator to be transported easily, it would have to be light enough to be lifted by two people, and be able to fit in the back of a 4x4, as most gliding clubs have these available in spades.

I didn't believe that it was necessary or desirable to have a cockpit that tilted or banked. If a glider is going through a balanced turn then all that is experienced is increased G. Provision of this capability would block peripheral vision and obstruct an instructor's view of what was going on.

Having arrived at what I thought was a desirable concept I then started on the research. I visited Sid Salleck in Tauranga who had a "joy stick and pedal simulator" and saw the software that is available. I was very impressed and from that point on I knew it was feasible at a reasonable cost.

To solve the view problem I used a device called Triplehead2go that extends the view over three screens to 3840x1024 pixels. To

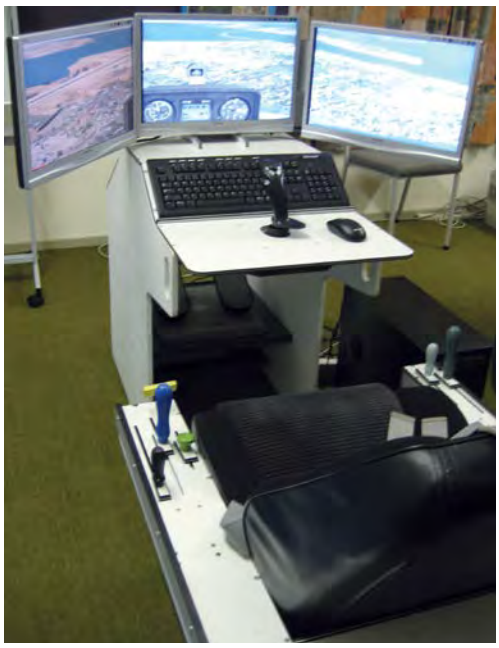
allow the view to extend even further around I used a device that has a reflector that you wear on a cap and a projector/detector that sits on top of the centre screen that magnifies the pilot's head movement. This adjusts the view on the screens, and the clever little thing allows for you to be able to change your viewpoint up and down and in and out. This option, while beneficial, takes a bit of getting used to.

Obviously, to handle the increased complexity of all this, a top line graphics card was needed along with a motherboard and processor to match. I couldn't find an "off the shelf" computer of suitable specifications, so I consulted Gareth Pryce of PC Logic Ltd who did a design and build for me.

Originally I intended to build the frame largely of MDF, but Gerald Van Vliet of Resco NZ Ltd offered me some high density partitioning material that was far stronger, pre-finished and proved most suitable.

For the seat I chose a modern car seat which is adjustable, and mounted it so that it would be comfortable when the pilot's feet were on the pedals (offered at no cost from a club member). Seat straps were supplied by Sailplane Services Ltd and were easily incorporated. The problem of isolating the brakes, flaps, trim, undercarriage, and water control levers from the joystick was solved by purchasing a control quadrant. This I mounted behind the seat and connected to the control sliders by a series of push/pull cables and levers to gear the controls to suit.

Positioning the control column posed a problem as all joysticks come with big bases with plenty of inappropriate buttons and things to play with which would make it easy to mess up the designations of the correct controls. I noticed that the "The Simulator" featured on the cover of The Gliding Kiwi had the control column on the right-hand side which, while easy to do, would make it difficult to change hands to use the undercarriage and water levers, and was also a bit foreign to club gliders. An arm rest was going to be needed, and because of the size of the base it was not possible to mount it between the legs. A "desk top" solved the problems with the joystick mounted so that only the actual stick was accessible.



There are a number of gliding and flight simulators available. Microsoft Flight Simulator 2004 has a glider in it, and as a lot of the graphics development has been done by power pilots, the scenery is impressive. However it only has a Schweizer 2-32 glider, which being an open cockpit has no yaw string, just a turn and bank that is well down on the instrument panel. Also Microsoft don't do a good job of thermals, and so the program is limiting. Far better from a flying perspective is Silent Wings which has a range of modern gliders to fly and some very good scenery in a small area of Denmark, but the detail in the NZ scenery is not very high. The flight characteristics of the different gliders are recognisable by those that own them, but all agree that flying the simulator is somewhat more demanding than the real glider. I felt this attribute to be particularly desirable. If it was easier than a real glider, then its usefulness as a training aid would be significantly less, as a student would have to sharpen his skills in the real thing rather than finding the mechanics easier and allowing him to become accustomed to his new environment.

Within the program you can specify wind strength and direction, cloud base, inversion height, wind shear and wind gradient. Thermal strength, size and density can also be set. You can select winch launches or aerotow, and you can even tell the tow plane where to turn. Obviously with all these options, and with every strip in New Zealand included in the program, the possibilities are endless. Ridge soaring and wave flight are in the program and they are quite realistic.

Finally I had to devise a way of charging for its use, and so I have installed a logging program that registers the times that all programs are open. At the present the MSC is charging out the simulator at $10 an hour and it has a log book into which users register their use.

The few students I have instructed on it have benefited from the experience as we have worked on particular aspects of their flying. It would be great for training instructors, to get their patter right. I can also see it being in demand by pilots going to different gliding sites, as it helps with site familiarity. Evening and wet day flights are now possible, and tasks can be set from exotic gliding sites to challenge club members, such is its scope.

A number of instructors from different clubs have had a flight, and all have been suitably impressed. Adrian Cable couldn't resist rolling inverted on his first flight.

Having completed the simulator I am happy with the results and there is little I would change given the cost constraints. If set up permanently in a room of its own then triple projection on to a curved screen may be an improvement but as the instrument panel is part of the image it then moves well away from the pilot.

I have obtained the manual to write higher definition graphics for the Silent Wings program, so this is something I may tackle in the next year. I have scenery for all but the North Western sector of New Zealand from Morrinsville, so not Drury or anywhere north of Auckland in Silent Wings. You will be able to fly all the South Island and the North to Morrinsville, Raglan, and up the Thames Valley and Coromandel Peninsula.

TECH-TALK

ROGER HARRIS

Roger Harris has been involved in the maintenance and repair of gliders for more than forty six years. He is a current Gliding New Zealand Approved glider maintenance engineer, holds GNZ Class four Approval and a GNZ IA-G Certificate (Inspection Authorisation-Glider). He currently conducts the Annual Inspection and Annual Review of Airworthiness on twenty-three gliders of all construction types although he is working on reducing this number now that he has joined the ranks of Superannuitants.

To continue again from last issue, we were discussing the Gliding New Zealand' (GNZ) Paperwork. This time, we look at the other paperwork carried in the sailplane. We commonly call them gliders, as does the rules, thus so will I.

There are four documents that should be in the glider at all times: the DI book, the Airworthiness Certificate, the Weight and Balance form, and the Radio Station Equipment Approval form. These forms are there to advise the pilot on the condition and status of the glider he/she is about to fly. They are normally carried in the front of the Flight Manual.

The CAA Airworthiness Certificate

This form certifies that this particular glider has been issued with a Type Certificate accepted by NZ CAA as complying with all the requirements prescribed by Civil Aviation Rules relating to design, manufacture, maintenance, modification, repair and safety. It is not a release to service. It does not mean that the aircraft is fit for flight, nor safe for flight. It is issued in the standard, restricted and special categories. Gliders are normally issued with a standard category.

> "I fly because it releases my mind from the tyranny of petty things."
>
> *Antoine de Saint-Exupery*

The CAA form 2129, Radio Station Approval

This form lists the type and number of devices installed in the glider, which transmit radio frequencies, i.e. radio, transponder, Flarm, ELT. These are checked on installation and biennially, to ensure that they work correctly and do not interfere with each others' operation.

The CAA form 2173, Weight and Balance

This form gives the details of the most current weighing of the glider, and its results. It is from this weighing that the glider's in-flight centre of gravity is determined, and the maximum and minimum cockpit loads are confirmed.

The CAA Approved Flight Manual

Rule 104.9 allows a person to operate a glider without carrying a flight manual in the glider if:

(1) the flight manual is available to the pilot for pre-flight planning; and

(2) cockpit decals provide the reference information necessary for a pilot to safely operate the glider.

But why would you not want to carry it?

The flight manual (F/M) is in two parts: the manufacturer's flight manual, which contains all information required by the pilot for the safe operation of the glider, and the NZ CAA issued flight manual. The latter consists of (usually) three or four pages and identifies the manufacturer's F/M as being the 'Approved Flight Manual' for NZ.

This NZ F/M is identified by a three or four digit number, eg "AIR 1234". Quote this number on the CAA website to get straight to the correct F/M details.

The CAA F/M has an Amendment List number eg A/L 1 and you should always have the latest A/L number, as noted on the CAA Website. The Manufacturer's F/M also has a list of revisions and a list of effective pages. Both should be up to date, again see CAA website. Look under Flight Manuals, and quote your AIR number.

The remainder of the F/M is standard, but gives a heap of useful information. I am always surprised at how many pilots cannot be bothered to read their F/M, relying on the cockpit placards only to give them the information they need to fly safely.

Engineers Course

There is another GNZ Class Two Engineers Course planned for November 2008. This is a four day course, to be held in Canterbury at Hororata Airfield, running 3rd to the 7th November, inclusive. Those wishing to attend should indicate their intention via email to the National Airworthiness Officer by the end of September. Email rharris@xtra.co.nz Please note that I am out of the country from 24th June to 19th September.

GLIDING NEW ZEALAND NEWS

MAX STEVENS GNZ EXECUTIVE OFFICER

This column is intended to give readers an ongoing insight into the activities of the GNZ Executive and its Committees. Rather than a detailed report on matters currently under consideration, here are some recent items of significance.

AGM WEEKEND WELLINGTON 14-15 JUNE. Just over two-thirds of our 31 constituent clubs and other affiliates were represented, plus nearly all GNZ officers and committee chairs.

Useful and relevant discussions were had at the Airworthiness and pilots meetings in the morning, followed by the President's Forum after lunch.

Tom Shields and Roger Read followed with inspiring presentations on Youth Glide, which were supported by Vern Grant's description of the school scheme that Gliding Wairarapa has successfully developed. Delegates were very interested to hear that these groups are working with the Aviation, Tourism, and Travel Training Organisation (ATTTO) to develop gliding unit standards with a view to offering NZCEA credits towards the National Certificate in Aviation Level 2, as early as next year.

Next, we heard what the RCCNZ will do for us if we switch on our 406 MHz rescue beacon, and a bit about the pros and cons of the increasingly popular SPOT devices (ELTs they are not). This was followed by Roy Edwards' excellent presentation on the emergency plans used at the Matamata and Omarama Soaring Centres when a known accident occurs or a glider is overdue – plans honed by experience, fortunately/unfortunately.

George Wills gave us a rundown on the exciting new developments to the GNZ website, scheduled to be up and running in a couple of months. IGC President, Bob Henderson, rounded up the afternoon with a briefing on FAI Gliding initiatives, including a snappy video on the World Air Games to be held in Italy next year.

Our guest speaker at the cocktail party, Sue Truman, gave us a 'Birds Eye View' of her remarkable aviation career. An outstanding achiever, Sue started gliding at Ohakea when she was 16; graduated as an engineer from Auckland University, then got a PhD in materials engineering; was one of the first two female airline pilots for Air NZ, flying Friendships then Bristol Freighters and Argosies for SafeAir. She left NZ in 1987 to join British Aerospace and held a number of senior positions including Project Director for the Jetstream 41, VP Flight Operations and Flight Test, and President Worldwide Customer Support. Her last job there was Managing Director of Flight Training. Sue took early retirement and returned to New Zealand in 2006.

Sue's talk was highly entertaining – if you weren't there, you missed a treat! Moves are afoot to have Sue talk to Youth Glide groups – they will find her inspiring.

ANNUAL REPORT BOOKLET This year we saved significant cost by posting the hard-copy Annual Report booklet to key people only, rather than to all club members. However, if you would like a printed copy, just send me an email request. The booklet is also downloadable from the GNZ website.

ELECTIONS George Rogers has been elected for another term as GNZ President. With Ross Biggar and Gavin Wills standing down, we also have a couple of new faces on the Executive. Welcome to our new Vice President, Nigel Davy; and to Executive member, Mike Dekker.

OPERATIONS Doug Hamilton has indicated his intention to stand down from the role of NOO next year, so we need to identify someone to replace him. Ideally the appointee will be very experienced and a currently approved instructor trainer. If you have thoughts on who may be available please talk to Doug, George Rogers or myself.

RACING The SRC will shortly be seeking feedback from competition pilots and clubs regarding proposals to revise the international team selection criteria. This will be followed by an email vote and recommendations to the Executive.

AIRSPACE The Airspace Committee is keen for clubs to keep it aware of local issues. It will help the committee's negotiating position immensely if all activations of your local GAAs are logged. A club log that also caters for recording individual clearances and denials of clearance is recommended. In due course a web based recording system for national use may be established.

Meanwhile, to minimise opportunities for others to put us on the back foot, it would be useful to ensure that:

- Visiting pilots are clearly briefed on airspace they will operate in, that they know standard terms and practices and that their English is of an acceptable standard for airspace communications.
- We promote the sharing of airspace on a reasonable basis. We should avoid behaving in a way that might be interpreted as unreasonably restricting other users which would cause them or CAA/Airways to seek further reductions in our access to airspace.

PROMOTION At the AGM, President George noted that during the past year about half of our clubs grew in membership while the other half declined. It was very pleasing to note that junior members increased significantly. Steve Tollestrup, our National Publicity Coordinator, noted that new entrants to the sport were growing by about 15% per annum so that even a modest reduction in the leakage rate could make a significant difference to net membership.

In the coming year, 'Trojan cards' and more pop-up displays will be developed for use by clubs, and Steve will shortly be floating ideas for the annual promotional blitz. We also need to promote greater use of the 0800 GLIDING number, as usage has dropped off by nearly half in the past year.

NEW AWARDS OFFICER Edouard Devenoges is now the GNZ Awards Officer. Ed's contact address is gnzawards@xtra.co.nz 40 Eversham Road, Mt Maunganui 3116.

JILL MCCAW

As well as her other claims to fame Jill holds a BSc in Environmental and Ecological Science. She is a great cook too, but that has nothing to do with this subject.

WESTERLY WINDS

New Zealand sits in the Roaring Forties. Our predominant wind is westerly and our weather systems come, mostly, from the west. This isn't news to most people – but have you ever wondered why? We have the vastness of the Pacific Ocean off to the east. Why don't weather systems come from that direction?

There are associated questions. Why don't tropical cyclones blast out of the tropics and destroy things in our part of the world more often than they do? How come Antarctic generated winds don't keep our summers cold? How is it that winds at the equator and the poles tend to the east but winds at our latitude and at similar latitudes in the Northern Hemisphere are westerly?

It is all to do with the sun and the obvious effect of heated air rising and then falling as it cools. Friction and the direction in which the earth turns have something to do with it too.

The most basic description of global air circulation is easy to understand. The equator receives more sunlight, therefore more heat than the rest of the world. The poles receive the least heat. Hot air rises. Radiative heating causes air to rise at the equator. The tropopause, at around 8 km above the earth is an inversion and therefore stops the rise. The air sinks as it cools at the poles, creating a great moving elevator of air. At high levels the air is moving pole-ward while it flows back to the equator at lower levels. If this model were all there was to it there would be a net pole-ward transfer of heat that would be self-regulating. If the tropics got overheated the circulation would speed up, or it would slow down if there were less heat. [See Fig 1.]

Of course global circulation is not that simple. The spinning of the earth and landscape features break the great north/south airflows into three separate systems in each hemisphere: the Hadley, Ferrel and Polar cells. [See Fig 2.] This is still a simplistic representation but it will do for this explanation.

In the Hadley cell the air at the equator rises before descending at around 30° N/S creating a high pressure zone. The air then flows back towards the equator [See Fig 3.], taking on an easterly component due to the earth's rotation (the Coriolis effect). These winds are known as the Trade Winds.

The Polar cell is similar in that it is also caused by rising of warm air from roughly 60°s latitude. This air, of course, is cooler and drier than equatorial air but is still buoyant enough to rise; and to fall again as the very dry, very cold high pressure area over the poles. It then flows back, again twisting to the east.

So why is the bit in the middle, between 30 and 60° latitude so chaotic, and why does the wind blow from the west?

We have to get into physics here and I'll try and keep it simple – although we have been talking about physics already. Have you noticed? Let's take this up a notch.

What causes the Coriolis effect? Friction near the ground plays its part and, if there's less friction (i.e. at altitude), angular momentum has to be conserved. Remember also that the ground at the equator moves faster than the ground at higher latitudes – the equator has to cover a greater distance every day. A parcel of (stationary) air over the equator has a large amount of momentum

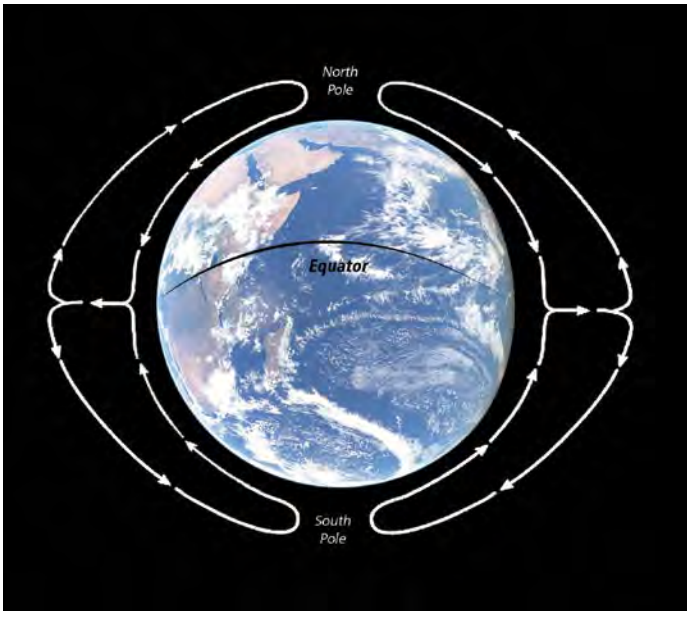


FIGURE 1 – Idealised global air circulaton

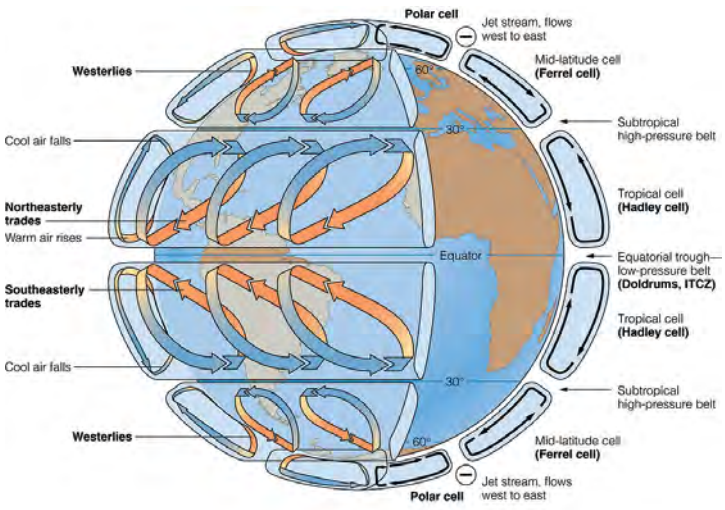


FIGURE 2 – Actual global air circulation

since it is being dragged along by the surface underneath it. A parcel of stationary air at higher latitudes has less – less angular momentum as you move toward the poles – remember this.

As the equatorial air moves pole-ward it appears to accelerate in an eastward direction (as a westerly wind) in comparison with the surface it is over; angular momentum is conserved. This is happening at height; at surface levels the opposite happens. The air flowing back to the equator appears to slow down relative to the ground, so you get easterly trade winds. Eventually, surface friction adds angular momentum to the wind, speeding it up (making it less easterly) until you get the tropical Doldrums where the air is moving at the same speed as the ground.

Back to the upper level now. That upper-level westerly flowing air is now cooling and coming back down to the surface in the subtropical high pressure zone (all that air falling down creates high pressure). It is obvious when you think about it. That upper-level westerly movement in the falling air, with the easterly moving sea level air nearer the tropics, winds the system up and sets it spinning anticlockwise in the Southern Hemisphere. Now think of a high shown on a weather map. Which direction does the air flow around a high? Anti-clockwise in our part of the world. Well done. Picture a band of 'H's sitting across a map of the world at 30°, about the latitude of the middle of Australia. With the air charging anti-clockwise around them the air coming our way is westerly. There is of course considerable seasonal variation in where the subtropical high pressure zone sits and it is not actually a continuous ridge around the globe. In winter all circulation cells tend to move 5-10° northward.

To the north of us then is an area of high pressure, a ridge. To the south of us is an area of low pressure, a trough. I'll get to why in a moment. Air flows from high to low pressure so low level air in the Ferrel cell, that is the one we are sitting in, is travelling pole-ward. When it gets there it meets the cold air from the polar cell and rides over it, rising aloft to create the circulation of the polar cell as well as some upper level air flowing back to complete the circulation of the Ferrel cell. Air rising – makes low pressure. Get it? Therefore below us at about 60° is a row of lows. Using similar angular momentum arguments to those above, picture the 'L's and the clockwise airflow around them. From which direction is that air coming at us? Yep, it's westerly.

So the tropical air stays in the tropics, the polar air stays at the poles and we get predominantly westerly winds in mid latitudes. QED.

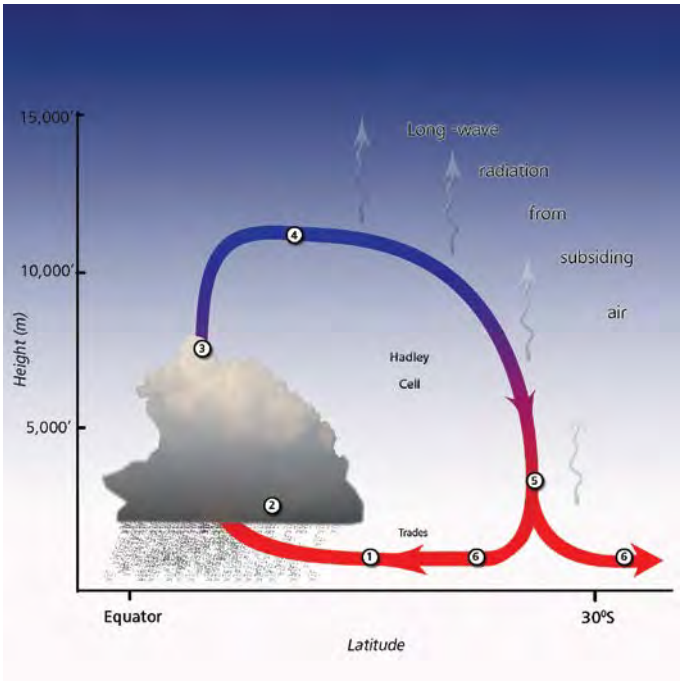


FIGURE 3 - Air rising at the equator falls to earth at roughly 30° latitude

WEBLINKS

AIRSPORTS TV

From their Press Release of 26th June.
Airsports.tv, the world's first Internet TV channel for air sports, went live today offering unique and exciting broadcast-quality programming from the diverse world of air sports, which spans the sports of skydiving, air racing, aerobatics, gliding, hang gliding, model flying, helicopters, hot air balloons and many more.
Airsports.tv is free to view, with state of the art video streaming and on-demand films. The site will soon offer live broadcasting of major World Championship events beginning this year.
This site is so cool that when I found it my computer got hijacked for hours as everyone in the family had to check it out. Someone has been looking at it every day ever since.
http://www.airsports.tv/

LATE NIGHT VIEWING

For those that sit up late at night and might like a peek at others flying. The following link to a web camera at Minden (a well known gliding site) in Nevada, USA.
http://www.ourairport.org/webcam/KMEVCams.html

BLOKARTS

They might only have one wing but these things really do fly – in two dimensions. There is a gliding club in the country that is seriously thinking about purchasing one of these to teach the basics of how a wing works (and have a lot of fun as well).
http://www.blokart.com

TAKING A TRIP?

Thinking of getting away from the winter weather with a flight across the Tasman? Check out the Soaring Australia website for details on gliding clubs.
http://www.soaring.org.au/main/
Likewise if the USA is your destination you can find loads of information to help plan your trip on the Soaring Society of America's site. **http://www.ssa.org/**

After living in New Zealand for two years Wellington pilot Graham Headley comments on possible outcomes for our sport based on what he has seen happening in the UK.

GLIDING ...
WHAT OF THE FUTURE AS PETROL SOARS TO $3 A LITRE
– CAN WE SURVIVE?

Gliding has traditionally been the aviation sport to which people who earn moderate salaries can comfortably aspire ... but what about the headline above? Will this become the sport of the rich with tow plane operations, self-launchers and gliders beyond the scope of normal incomes?

Since moving to New Zealand from the UK some two years ago I see the same endemic problems that plague the UK gliding clubs. The two main ones are the ageing membership demography and spiralling costs of operation.

My qualifications to write the following: I am one of the 'oldish' sweats with 36 years' experience, 32 as an instructor, around gliding clubs (both military and civilian) in the UK ,Germany, Cyprus and New Zealand – with over 6000 winch and 1000 aerotows in that period. I have been a gliding executive at all levels within clubs and I have seen many flourish and wither.

The ageing demograph can be addressed by trying to bring affordable flying to the youth of today and by keeping their interest. Modernising the fleet helps but the ethos of the existing club membership has to be addressed. That is another story. What about the above? As oil breaks all known barriers, how are gliding clubs who operate expensive tow planes going to survive?

The pursuit of gliding will become more of a 'rich man's' hobby. I see it already with my club at Wellington. The club flying is all about trial flights to make money, instructing a few students maybe; and a swarm of private owners who take off on a good day and return late in the evening, contributing with funds to the club's existence. There are places for all these people and their various contributions within the Club but I see the biggest money drain as the two tow planes the Club supports to launch everyone. At Wellington there are few alternatives to launching and the cheaper winch option would not be viable with busy light aircraft and helicopter operations.

So what of the future now that aviation fuel soars – can we still keep gliding in the realm of the common man or woman? Are we just going to have our specialist super centres like Omarama, or will clubs wither and die on the vine? The petrol prices in the UK are much higher and there has been a side shift to value-for-money flying which has necessitated people considering winch launching as a more efficient way to teach aviation at a reasonable cost.

A positive way of employing this concept is explored at Jury Hill in Wairarapa. The current cost of a winch launch at Jury Hill is about $2.50 and that launches the glider to 1300 ft plus. An average number of launches is around six per hour. This is still profitable, as winches do not attract the same maintenance overheads as tow planes do. The winch itself can range from a sophisticated Sky Launch winch which can match most tow planes in cost at $140K, to a home built version for $3-4K.

In order to have an effective winch operating site you must have a strip which at least three times the cable run for the height you want to achieve. So if you have a 4000 foot strip length you can expect at least 1500 feet in launch height. Changing to a winch ethos or combining winch and aerotow gives the best of both worlds.

Aerotow is very good for the initial lessons when time in the air is what is needed. However the winch launch takes over in value after this initial instruction because the basic pilot needs launches, circuits and landings. Overall a winching solo package is significantly cheaper than the aerotow option and hence can be marketed more efficiently. Another unseen advantage of the winch system is bonding of club members. The aerotow and self launcher needs few people to operate but winching brings a need for at least 4-6 people to be organised and turn up together.

So what is the best mix for both cost and growth of gliding as a reasonably priced sport? Some of the UK clubs are moving away from expensive tow planes like the Pawnees and Chipmunks to investing in motor gliders that can tow gliders, plus establishing winching as a core training system. The retention of aerotows keeps the private owner contributing his much-needed funds and the winch provides the training element. Gliding clubs like these are busy places and have started to attract young people. Additionally, the added enthusiasm enriches the organisation so that some older fellows like me can let other people start growing the sport. Linking Universities to form their own club within an existing Gliding Club has huge benefits for both organisations and provides an on tap source of students. Without this symbiotic amalgamation of Clubs, the military gliding clubs would have withered away some time ago, but instead they are flourishing and keeping their costs down.

Going back to my original statement: with petrol at $3 a litre, can we still afford to fly like we do and more importantly can the younger generation do it too ...?

SAILPLANE RACING COMMITTEE

by Ross Gaddes

In June at the AGM a slightly altered committee took over for the next year. These members and their respective portfolios are –

- Ross Gaddes – Chairman SRC – Tasman Trophy, Funding
- Edouard Devenoges – Promotion and Development, World Class Liaison
- Ben Flewett – Rules & Handicaps
- Dane Dickinson – Trophies & Contest calendar
- Dennis Cook – Working with Ben in areas of scoring systems etc.
- Vaughan Ruddick – Club Class Development

The discussions have been various and at this stage we require an email vote for several appointments.

- We need a second 'Pilots Representative' for the selection committee – this should have been done at the AGM but I was remiss and misread Ben's agenda to request one rep. Sorry folks.
- We need to select the Tasman Trophy Representative with Brett Hunter nominated at the time of writing this article.
- We need to also decide on the venue for the 2010 Nationals as Taupo has been suggested as an alternative for the 2010 event.

By the time this article goes to print these email votes should have been held. The decision on the Nationals venue for the 2010 North Island is interesting and a change from the historic venue of Matamata has been suggested.

Some pilots were interested in changing, citing various reasons. These reasons included – tasking variations, restrictions on the event's timing at Matamata, airspace freedom, closer holiday facilities for pilot crews and family members.

It seems some pilots feel a change will help attract South Islanders and those who would like to try some different countryside to fly over. The proximity of Taupo as a holiday destination for the family and crew was also a consideration.

> "... some pilots feel a change will help attract South Islanders and those who would like to try some different countryside to fly over."

The Taupo Gliding Club has indicated that they are interested in hosting the Nationals and they feel they can provide the facility and organisation. At the time of writing this the Taupo Club wants to run the competition and not the Matamata Soaring Centre (MSC) of whom they are members.

The meeting suggested a 'Sports and/or Club' event still be held by the MSC to ensure the time slot is protected against other airfield user applications.

The Matamata Soaring Centre is disappointed and do not want to lose the event for 2010 but support a vote and would like a poll as to how many extra attendances a venue change will produce. This vote should have taken place by now but I hope that an unbiased 'pro's and cons' info note, distributed with the email voting proposal, will help the members make a decision.


Photo John McCaw

The cons against are – competition from the other Matamata airfield users could threaten the normal time slot, airspace usage could encourage Airways to take even more, reduction in turnover for the MSC, lack of 'friendly countryside' for outlandings and the proximity of the Kaimai Ridge to Matamata for SW conditions.

Also presented at the AGM was a changed proposal to the MOAP Section 2. Selection Procedure for International Representatives. A lot of work was done by Ben and Dane and although it was really just to be forwarded to the executive for their consideration (as directed at the previous AGM) it was discussed anyway as many found it of interest.

Stop Press Brett Hunter (today, 6 Aug) confirmed availability for the Tasman Trophy to be held in the "Club Class" Nationals at Kingaroy in mid October.


Photo John McCaw

AIRSPACE

GNZ Airspace Committee's Central Regional Officer Grae Harrison makes the following report.

It has been a very quiet winter so far, with the dreadful weekend weather putting a damper on gliding.

The Airspace team, though, have been busy 'fighting fires' and meeting with Airways Corporation New Zealand (ACNZ) and other users to retain and improve our position.

We were most surprised to receive an email from Queenstown Tower notifying us of their desire to change G957 to 'Air Traffic Control (ATC) Approval from On Notification . Their arguments for doing so are very weak and we will strongly oppose any such change and are confident this proposed change by ACNZ will not proceed. We will be meeting with them in Wellington during early August to review the MOU and general flying areas from Omarama.

Ralph Gore has put in considerable effort concerning the Bay areas including the Waikato and Rotorua airspace of recent times. He successfully negotiated an extension to R298 to the North in the Coromandel region.

Of great concern is the action of a member of the Tauranga Club, who took it upon himself to contact Civil Aviation Authority and ACNZ without first contacting Ralph or any other Airspace team member, which could potentially cause a reclassification of Class D airspace in that area. The potential impact for the Tauranga Club if this goes ahead is the possibility that only three gliders will be allowed to operate in the airspace at any one time.

We must stress again to all club presidents and CFI's that a coordinated approach through your airspace representatives is the best and only way forward if we are to preserve the airspace for all Kiwi glider pilots. The Airspace team members and contact details are available on the GNZ website.


Photo John McCaw

Ian Dunkley introduces us to some of the different soaring experiences he has had over the years flying vintage gliders. If you thought winter flying was cold where you are...

WAVES ON SNOW

by Ian Dunkley

Every March for the last 46 years, the tiny Swedish village of Ottsjö has been invaded by up to 30 trailers – and more than 100 pilots and hangers-on. The fifty or so permanent villagers rent out their homes and move into their basements or attics for a fortnight. For the Swedish equivalent of $5000, local farmers plough a complex airfield layout out of the snow on the frozen lake, hoping for more snow so they will have to do it all again.

The Ottsjö Fjällflygläger is a gliding 'club' that operates for just two weeks a year. Its members are other clubs and there is no CFI. It started when Carl Erik Öugärd organised a small expedition in the area to search for a wave site. Whilst there was some success, and obvious wave activity, the ideal site was not found. Carl Erik went off to join the Sierra Wave Project in the USA, dying when his oxygen system failed at 12,500 m in the Bishop Wave.

In 1960, Rolf Algotson, a former student of Öugärd decided that the Ottsjö in winter could be the place. Locals told him that in south-westerlies, parts of the lake in the lee of the local mountain became quite rough. "Aha!" said Rolf (he really talks like that), "Rotor!" The rest, as they say, is history.

1986 was the 'Diamond Year'. 83 height gains were accepted. From 1961 to 2000 the total score was: 148 Diamonds, 900 Golds and 1,091 Silvers. Over the same period 19,000 launches and 15,000 hours were flown. All this from a two-week a year 'club'.

I joined an expedition a few years back that delivered 12 Golds and six Diamonds, plus other gains below 3,000 m. The highest was a gain of 5,650 m. What a day! On one flight I left 4m/s lift at 3,700 m QFE – 4,000 m being the Swedish limit without oxygen. Why push it, when you have to be back in an hour and have a diamond height anyway?

Some pilots have been coming for the entire forty-six years. I am not sure if the longevity is due to gliding, diet or Swedish women. Rolf Algotson considers the reason is Bacillus Lenticularis, which despite causing some marital problems delays cell degeneration. Younger pilots are also well represented and this is pleasing to the town of Ottsjö.

Tugging from the lake provides some interesting flying for the pilots. The year I was there three tugs, one equipped with skis, were available and it was the wheeled versions that had the hardest time. They were fine on packed snow but hard on polished ice, when directional control can be hard to maintain, particularly in a cross-wind. The skied aircraft lands fine on snow but slides gracefully on ice so it was generally partnered by wingtip holders.

At briefing on the first morning everyone was reminded of the need for every aircraft to carry a first aid kit, flares, a torch, matches and emergency food etc. and heed the survival guide. Overkill? Within five hours a pilot got lost, a snow flurry iced up his canopy (despite double glazing). He landed out, reported by radio and then disappeared. Two tugs spent two hours in poor flying conditions searching, without success, the rescue services were called out, and he was finally spotted in the village shop, with his mobile and GPS in the car, where they had been all day! He'd caught a lift home from a passing skimobile.

The snow-covered ice runway also provides potential problems for the glider pilot, not least because it is less than 15 m wide and has deep snow banks either side. Where the snow has blown away, shiny ice is revealed and this can make life interesting in a cross-wind, as directional control, once lost, stays lost. Gliders can slide quite a long way sideways on the ice before stopping very quickly when they hit the snow bank.

Wave is wave, so other than the hostile environment the main differences were only local. It helped a lot that the tug pilots knew the 'hot spots' (if that's appropriate at sub-zero temperatures although there was good thermal flying as well), especially as wind direction on the lake could change dramatically: 180° for only small changes in upper winds. The towing route changed frequently but if there was wave the tugs invariably found it.

Cloud cover could be a problem: wave slots closing, lower cloud forming, or the wave rapidly moving in some wind directions. Snow falling could cause 'white out' over part of the lake, whilst leaving another area relatively clear of cloud. Lift was often in the order of 4-5 m/s or more and very smooth, whilst turbulence was mild. On the 'Diamond Day' the sun was shining, the sky was full of wave, with quite varying orientations, and with up to 12 stacked layers. No photograph could show how dramatic the sky was.

We flew for nine consecutive days until it snowed for three days, covering the aircraft and filling in the airfield. So the farmer with a small tractor cleared narrow runways.

A typical wave flight starts when the tug opens up and promptly disappears in the cloud of snow that you will shortly fly through, conveniently hiding any wing drops or sideways skids from the spectators. The tug turns towards the mountain that drops sheer to the lake, turns again and begins its climb along the steep snow-covered slope, with only the near-vertical rocks showing through. On your right is the rotor with the rotor cloud above it.

As you reach the summit at about 1000 m you see the morning sun casting shadows over the tree-lined valley and lower slopes, contrasting with the ice and snow below you and the higher, snow-covered mountains to the south. Your feet get colder, and you start looking for gliders, appreciating their orange stripes, and marvel at the views which get whiter and bleaker by the minute. Two cross-country skiers, lunching on a peak, give scale to the vastness.

As you get higher – in very smooth lift, but in often quite short beats with frequent 'stitching' into wind – distant mountains appear as does the glacial valley that funnels the wind to produce the waves. Away to the south-east, a textbook U-shaped valley under frozen snow looks as if the glacier is still there. To the west, the mountains of Norway can be seen beyond a large frozen lake.

Eventually the local wave tops out at about 4-5000 m. Generally most Diamond heights are reached above the lake's edge. The sky is full of wave, each valley and hill seems to be getting in on the act so often two parallel wave clouds are 'connected' by another at right angles to them.

Each circuit has a descending sector. When this is joined you report by radio then spiral down with others to the sector base at 300 m, call downwind, fly a high base leg clear of rotor, and line up to land. The sun is now behind the mountain so the lake is in shadow and the runway is not easy to see. The kink halfway down between landing and take-off sections creates a reference point. Gliders go a long way on ice, so you make sure you don't land too fast, too far down, or with drift, and you keep your wings above the snow banks. If you need the wheel brake you realise this as you roll on to clear ice, then find it makes little difference.

You get out carefully, and reflect. You have been flying in glass, 46 years ago it would have been wood, hardly a significant difference. That's 'Vintage Flying' for you.

KAWHATAU CAMP

by Darren Day

Wellington Gliding Club members enjoy themselves at Kawhatau. Seated in cockpit Susan Harwood, standing l-r Allison and Alain Marcuse, Bill Jackson, Adam Oke, Malay Shah, front Anne Jackson.

A Weekend of Fun, Friendship, Flying and a Few Lessons Learnt.

The Day family set off for the Kawhatau camp with great expectations for a family holiday and great soaring. Stories from previous camps told of glider-killing laminar-flowing easterlies and uphill landings. After a rapid visit to Tony's tyre service to mend the flat that was picked up on Charlie Uniform's pre-tow inspection we were off. A few hours later we were unpacking at Te One in spite of my statement to my wife: "I'm not driving up that road!"

In the firelight that evening there were more horror stories of smashed gliders and river landings. I was questioning the sanity of bringing my dearly beloved Charlie Uniform along. The first day flying was with George in the DG1000 for a check flight and local reconnoitre. After an hour flying with George I had my bearings and some of the bad habits I'd picked up since I'd last flown with an instructor pointed out. I still maintain there is nothing wrong with flying the DG like I'm doing aeros in a Harvard, but if it makes George happy and he signs off a few more things on my "B" certificate then I won't explore the outer fringes of the control box with the stick. And George wondered why I had a parachute on?

The next day Charlie Uniform and I were second on the grid and feeling rather nervous. A strong easterly was blowing and the rotor from the wave was clearly visible. The aerotow to the hills was not for the faint-hearted. Safe in the knowledge George was not seated

behind me I proceeded to use stick and rudder like a fighter ace on the tail of an Me109. That tow plane was not going to shake me off.

We got upwind of the rotor cloud and I released in what I thought was strong lift – oops, 6 knots down was not what I was after. The battle was on. I was going to fly the rotor up to the wave. With George's last words of "feel it in the seat of your pants" still going around in my head, I watched muesli bars and bananas get airborne around the cockpit, and yes I sure could feel the sink in the seat of my pants which were in escalating danger of being filled. After 20 mins of battling and losing height I put the nose down and made a dash for a small ridge 1 km from the field. The thought of the ridicule I would take if I returned within 30 mins had me heading out determinedly to the ridge above the riverbed next to base leg. I knew I could ridge soar and thermal, so there I sat in survival mode for the best part of an hour.

Slowly I started to climb, confidence returning. I watched a large cumulus cloud appear nearby. I centred in the core of a 5 kt climb and got to cloud base. Feeling good I pushed forward toward the primary wave a few kilometres north from where the tow plane took me. In the rotor again, but this time I stuck Charlie Uniform on her wingtip in as tight a turn as I could hold and we were climbing. Going through 6500 ft the turbulence stopped and the climb evened out to a steady gentle 3 kts. I was one happy boy in the wave, feeling pleased with myself and relieved not to be on the ground.

A couple of hours into the flight it was time to try out the pilot relief system for the first time. The end result was a soggy mess with the hope of better luck next time. At 9000 ft while trying to clean up the mess I was startled by the flash of white wings (and more spillage) as ZI zoomed past my port wing in a climbing turn. Damn that Vaughan, out of range for my urine bag – next time I'll be waiting.

A few hours of playing in the wave and catching up with Hamish in JJ had me thinking it was time to do something with all this height. I could see Taihape in the distance with what looked like secondary and tertiary wave cloud along the route. Nose down and off I went back into 7 kt down, questioning if this was really such a good idea after all. Second line of wave and 1 kt lift – anything is better than sink. Back to 7500 ft before starting the jump across to Taihape where the third line of wave cloud sat. More sink but rescue came with a 0.5 kt climb in wave over Taihape. The feeling of accomplishment that comes from having read the cloud pattern, taken a risk and to still be in the air was the highlight of the flight for me.

The trip back to the hills was a replay of the trip out. I hit the primary rotor again at 5500 ft and climbed easily this time into the main wave pattern all the way to 9500 ft and the top of airspace. My confidence and ego were rising faster than Charlie Uniform.

Four hours into the flight and I was contemplating doing my 5 hour endurance badge flight, but I knew that I needed to get back to Wellington because the family had already left for home. A dash to Mangaweka and back used up more height but the thermals were strong in the late afternoon sun and climbs were easy to get. Wondering why my seat pan was very wet I noticed that the contents of my drinking water bag had seeped out; another litre of fluid in the seat pan. I made a mental note that sitting on the bite valve is not a good idea even if it does dilute the spilt pee! Air brakes to lose height and join the circuit but the thermals were strong and it was hard to get down.

I eventually joined the circuit very high with the intention of flying a long high final to allow adjustment for the easterly laminar flow that eats gliders but on finals I was way too high and fast. Out came full airbrakes and my aiming point was mid-way into the field. The brakes were quickly put away again as the demon easterly grabbed Charlie Uniform and sucked her toward the ground. Grateful for the extra speed and height (along with the fireside stories of a not so lucky Libelle) I made an arrival (who needs to flare) a third of the way into the field. A flight of 4hr 40 min but I was glad I didn't hang around just to make the 5 hr endurance for the sake of it.

With hindsight I wish had remembered the saying "the flight is not over until the plane is away and you are in the bar with a beer in your hand". After a quick change of clothes and a few manly hugs to celebrate my best flight yet, my mates helped me de-rig and stow Charlie Uniform in her trailer. But ... my day wasn't over yet!

With everything inside the trailer but the tailgate down, I moved to the back to secure the fuselage by tying the trolley to the end of the trailer. The shift in weight combined with the slope the trailers were parked on saw Charlie Uniform go solo. Out she shot from the trailer; fortunately for me the trolley was still aligned with the rail so she made a perfect exit brushing along the side of my car, close enough to remove the dust but not scratch the paintwork. Screams of "grab the glider" had helpers scampering to stop her as she entered the runway. Total damage was zero; anxiety scored 10/10 and a second set of underwear wetted.

Kawhatau was great: location, company and flying included. It saw most of my "B" syllabus signed off by George. One flight with Mark later in the DG and a simulated rope break saw me through to QGP. I'll be back at Kawhatau next year with my family to make more new friends, swap war stories and drink too much.

Roger Read

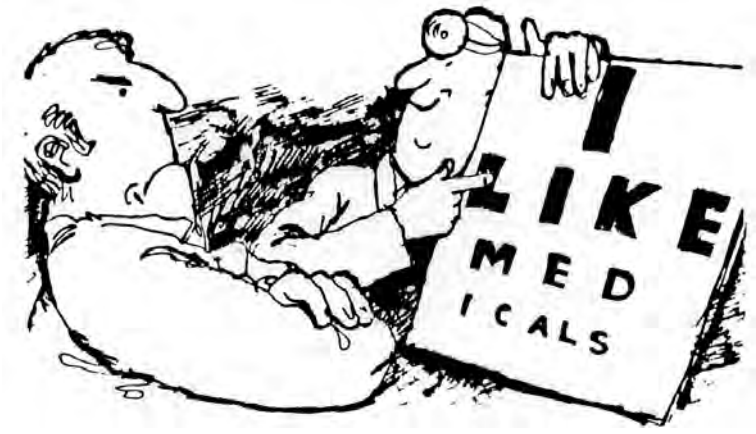
FITNESS FOR FLIGHT

With the onset of winter and the increased likelihood of chills and sniffles, I thought it timely to write about ensuring we are fit to do the flying we want to do. It makes good sense to make sure we are in good condition so we can ensure our best performance as a pilot.

We should always ensure that before starting our day at the airfield, we begin with a 'preflight' of ourselves. To help cover the various topics to check, we can use the 'I'M SAFE' checklist to cover the necessary considerations.

Illness We must be free of illness. Most illnesses affect our primary senses and have the potential to cause visual problems and/or balance problems and therefore orientation problems. Ears and sinuses must be clear of congestion to cope with the pressure changes that occur with all flight. Remember, the greatest pressure changes occur in the first few thousand feet so don't be fooled into thinking its okay so long as I don't go very high! Even a circuit can cause immense pain if your sinuses are blocked.

Our limbs and muscular system must also be fully functional to allow normal control. Don't be tempted to fly too soon after any illness and ensure you don't fly if still in bandages that may restrict your full control of the glider. I recall one instance of a nasty groundloop on takeoff when the pilot, sporting a heavily bandaged left hand, had to swap hands to pull the release when a wing dropped on takeoff. The delay in releasing aggravated the situation and the glider ended up badly damaged!



Medication Most over the counter medications are not designed with pilots in mind. They work perfectly well on the ground but have hazardous side effects for pilots. The most common undesirable effects are drowsiness and suppression of primary senses. Preferably, check with an Aviation Qualified Doctor or at least ensure your GP is aware that you fly and that they are happy that any medication you are taking is safe for use as the flying pilot ... not just as a passenger.

Stress There is an optimum amount of stress for humans. Too much and we suffer undesirable side effects like forgetfulness and irrational decision making ... not good in an aeroplane! Don't think going flying is an escape from the stress in your life; it is supposed to be relaxing but you must start free of stress so you can handle any that invariably pops up during your flying. When flying, remember that the environment we operate in can be very stressful in terms of summer heat or the cold of winter or high altitude flight. Avoid getting wet before flying and it's a good idea to carry a spare set of dry gear in case you need to change before launching. If flying high, remember that any degree of hypoxia will also raise stress levels and fatigue you more than normal.

Alcohol or Drugs The rules state we must not be under the influence so, like driving, make sure you are not vulnerable to the side effects of alcohol or drugs. They are particularly bad news for our balance system and erode our judgment and decision making performance. Don't fly with a hangover!

Fatigue Most of us will be well aware of our degraded personal performance when tired. Flying is a demanding exercise both physically and mentally so we must be well rested as sleeping on the job can be disastrous! Safe and successful circuit flying and landings require judgement and decision making of a very good standard at the end of the flight when fatigue will potentially be at its highest level.

Eating We are what we eat ... eat well and fly well; eat rubbish and (probably) fly poorly! Ensure you have eaten well and take food along to have during the day. Don't forget to take sufficient fluids to avoid dehydration. When flying, we process more water so the risk of dehydration with its detrimental effect on our performance is greater. Ensure any food and drink containers are stowed appropriately when carried in the cockpit.

Having pre-flighted ourselves, we can go and enjoy our day's gliding. Once flying, there may be occasions when we start out feeling okay but for whatever reason, we get tired or feel unwell. This will certainly undermine our performance and we definitely don't fly well when like this. If you are training, tell your instructor early. They will probably try to take your mind off it while returning to land. An airsickness bag should always be carried, even when solo, just in case ... and many of us have 'been there, done that' so don't be embarrassed if you have to use it.

Check yourself and your glider to ensure both are ready for flight ... then, go and enjoy the soaring.

INSTRUCTORS COLUMN

MILES HURSTHOUSE

Miles Hursthouse is a long term glider pilot, skilled airman and a very experienced instructor. This doesn't make him immune from accidents however. In February he had an accident (his first) which damaged two gliders. This was, he says, entirely his fault and caused much inconvenience for the Club as well as personal upset for several members.

A fellow instructor gave these words of wisdom shortly after the accident: "Some good can come out of it if others learn why and how it occurred, so that they won't make the same error." Miles wrote this article to achieve just that.

A good lookout is essential in the circuit

My flying history is as follows:-

I was a founding member of the Nelson Gliding Club in 1960 and went solo in June that year. In April 1961 I was rated "C" instructor, and "B" rated in September. I did my Silver C cross country etc. in 1962 and my 5 hrs in Hawkes Bay Gliding Club Rhonlerche GBE on Dec 30 1962 at Te Mata Peak.

I was also trained as a private pilot in powered aircraft, and did a lot of medical emergency trips, with landings on beaches, farm paddocks and top dressing strips until the advent of helicopters.

From then on I did quite a bit of instructing and stints as Club Secretary and Club President, until I went to Australia for several years of post graduate study. This latter left me broke so that when I came back I couldn't afford to fly gliders. However I did a fair stint of aerotowing.

After some years, a Gliding Club friend took me for a flight in the Grob twin Astir, at Lake Station, and this set me alight again for gliding. After some retraining in the club aircraft I was rated solo again and shortly after, my instructor and cross country ratings were revalidated. I have now done 347 instructional flights since December 2004.

On February 9th last, I was rated duty instructor for the day. The weather was fine, almost windless and very hot ... an ideal day for ab initio training. Our CFI was not able to stay but gave me a briefing before leaving. In particular he mentioned that one of our trainees, an intelligent middle-aged engineer, was having problems with his landings, and suggested I concentrate on him a bit – and this I did. Indeed he had problems with circuits as well as approaches and landings.

After 4 flights with him as I was about to start my 10th consecutive instructional flight of the day, I realised that I was significantly tired and probably a bit dehydrated, but was unable to obtain any other instructor to take over. So I decided to do the whole circuit planning and landing myself, from the back seat, and brief him in detail for the whole of the flight. That was **Mistake No.1.**

He did the winch launch and I took over after release. Shortly after this I did landing checks, called up and announced starting downwind leg for right hand circuit and landing on 290. Almost at the same time, the pilot of the club Ka6 GFF called up for his similar landing circuit and I noted that he was about 100-200 feet below me to starboard and slightly ahead of us. So I called that we would be landing No.2 and proceeded with the circuit. I did not see that aircraft again until after we had landed.

Mistake No.2.

When I went onto final, I noticed our other Grob twin was near the launch point, so kept my final approach slightly to the left of centerline with intended touchdown beyond launch point; and this I did. Within seconds of touchdown we felt a hefty bump and loud thump which felt to me as though we had run over some large rock or obstruction in the grass. So much so that I thought the fuselage may have been damaged, and I immediately got out and peered at the underside of the fuselage. It was quite normal. Then my trainee said that glider GFF, which was at right angles to the left side of the strip, looked damaged. And so it was; our left wing tip had hit the fin and rudder of GFF and cut it off! Damage to our aircraft was surface only and about a metre or less in from the wingtip.

My trainee had seen this aircraft on the ground, but was hesitant to tell me on our approach. My view of it was completely blocked by the man in front and the wing on my left.

Mistake No 3, and possibly the most important one regarding airmanship, was that I did not deliberately watch out for and keep constant note of the position of glider FF after he had called up his landing circuit. From then on, since I did not once see him, he must have been underneath and shielded from my backseat vision by our aircraft. It is important to realise that this situation can occur.

Mistake No.1, above, was my decision to fly at all when I was significantly tired due to concern about my wife who was seriously ill, as well as the natural fatigue from consecutive instructional flights. The simple fact is that I should not have flown that day.

The lessons learnt, as far as I am concerned: make sure of your sustained lookout and situation awareness always, and especially when in the landing circuit with another aircraft. Also remember the human factors of fatigue, poor concentration, and possible dehydration on a hot day, any or all of which can seriously affect concentration and flying ability.

I have started flying again after a great deal of support and assistance from our Club, and thank goodness my wife has survived a major surgical operation and also still supports my gliding activities.

CLUB DIRECTORY

Link for club info www.gliding.co.nz/Clubs/Clubs.htm

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Website www.GlideOmarama.com
Contact Gavin Wills gtmwills@xtra.co.nz
Base Omarama Airfield
Flying October through April 7 days per week

Gliding Hutt Valley (Upper Valley Gliding Club)
Club Contact Wayne Fisk wayne_fisk@xtra.co.nz
Ph (04) 567-3069
Base Kaitoke Airfield, (04) 526-7336
Flying Weekends, Public Hols., Mid week by arrangement

Gliding Manawatu
Club Website http://sites.ourregion.co.nz/glidingmanawatu/home.html
Club Contact Ron Sanders Resanders@xtra.co.nz
Base Feilding Aerodrome
Flying Weekends, Public holidays

Gliding South
Club Contact George Menlove ggmenlove@actrix.co.nz
Base Rouse Airstrip, Five Rivers, Southland
Flying Weekends and Public Holidays

Gliding Wairarapa
Club Website http://www.glidingwairarapa.co.nz/
Club Contact Diana Braithwaite Ph (06) 308-9101
Base Papawai Airfield, 5 km east of Greytown
Ph (06) 308-8452 or (025) 445 701
Flying Weekends, or by arrangement

Hauraki Aero Club
Club Website www.flyhac.co.nz
Club Contact Ron Bergersen d.rbergersen@xtra.co.nz
Ph (027) 277 4238
Base Thames Airfield
Flying Weekends and Public Holidays

Hawkes Bay Gliding Club
Club Website www.skyhigh-photography.com/Main/Aviation_and_Spaceflight/HB_Gliding_Club.php
Club Contact David Davidson Dhcd@clear.net.nz Ph (06) 876-9355
Base Bridge Pa Airfield, Hastings 0272887522
Flying Sundays. Other days by arrangement

Kaikohe Gliding Club
Club Contact Peter Fiske, (09) 407-8454
Base Kaikohe Airfield, Mangakahia Road, Kaikohe
Flying Sundays, Thursdays and Public Holidays

Marlborough Gliding Club
Club Website http://glide_marl.tripod.com
Club Contact bmog@paradise.net.nz
Base Omaka Airfield, Blenheim
Flying Sundays and other days by arrangement

Nelson Lakes Gliding Club
Club Website www.glidingnelson.co.nz
Club Contact Frank Saxton franksaxton@gmail.com
Ph (03) 546-6098
Base Lake Station Airfield, St.Arnaud Ph (03) 521-1870
Flying Weekends and Public Holidays

Norfolk Aviation Sports Club
Club Website http://www.geocities.com/norfolkgliding/
Club Contact Kevin Wisnewski wizzbang@xtra.co.nz
Ph (06) 756-8289
Base Norfolk Rd
Flying Weekends and by appointment

Omarama Gliding Club
Club Website http://www.omarama.com
Club Contact Yvonne Loader loaders@clear.net.nz
Ph (03) 358-3251
Base Omarama
Flying 7 days a week by arrangement

North Otago/Youth Glide Omarama
Club Website www.youthglideomarama.org.nz
Club Contact Tom Shields tom.shields@century21.co.nz
Ph (03) 473 1721
Base Omarama and Dunedin
Flying By arrangement

Piako Gliding Club
Club Website www.glidingmatamata.co.nz
Club Contact Phil Smith phil.r.smith@xtra.co.nz
Ph (027) 486-4761
Base Matamata Airfield, Ph (07) 888-5972
Flying Weekends, Wednesdays and Public Holidays

Rotorua Gliding Club
Club Website http://www.geocities.com/rotoruagc/RotoruaGlidingClub.html
Club Contact Mike Foley
roseandmikefoley@clear.net.nz
Ph (07) 347-2927
Base Rotorua Airport
Flying Sundays

South Canterbury Gliding Club
Club Website www.glidingsouthcanterbury.co.nz
Club Contact John Eggers johneggers@xtra.co.nz
33 Barnes St Timaru
Base Levels Timaru & Omarama Wardell Field
Flying Weekends, Public Holidays & by arrangement

Southern Soaring
Club Website www.soaring.co.nz
Club Contact Chris Rudge chris.rudge@soaring.co.nz
Ph (03) 438 9600 M 027 248 8800
Base The Soaring Centre, Omarama Airfield
Ph (03) 438-9600
Flying September-April: 7 days a week (except Xmas Day)

Taranaki Gliding Club
Club Website www.glidingtaranaki.com
Club Contact Peter Williams peter.williams@xtra.co.nz
Ph (06) 278 4292
Base Stratford
Flying Weekends and Public Holidays

Taupo Gliding Club
Club Website www.taupoglidingclub.co.nz
Club Contact Tom Anderson Tomolo@xtra.co.nz
PO Box 296, Taupo 2730 Ph (07) 378-5506
M 0274 939 272
Base Centennial Park, Taupo
Flying 7 days a week

Tauranga Gliding Club
Club Website www.glidingtauranga.co.nz
Club Contact Roy Edwards royedw@wave.co.nz
Ph (07) 578-0324
Base Tauranga Airport
Flying Weekends and Public Holidays, Wednesday afternoons and other times on request

Waipukurau Gliding Club
Club Contact R.D. Orr pat.rob@xtra.co.nz
Base Waipukurau Airfield Ph (06) 858-8226
Flying Weekends and Public Holidays

Wellington Gliding Club
Club Website http://www.soar.co.nz
President Mike Tucker mike@hvpc.co.nz
M (021) 439 193
Base Paraparaumu Airport
Flying Weekends and Public Holidays 7 days a week December through to March

Whangarei District Gliding Club
Club Website www.igrin.co.nz/~peter/gliding.htm
Club Contact Paul Rockell rockelkaym@xtra.co.nz
Base Rockelkaym Ridge, Gibbs Road, Puhi Puhi
Flying Weekends and Public Holidays

GLIDING NEW ZEALAND CLUB NEWS

As it is AGM season and committees are changing, can all clubs please remember to update their full details with GNZ and their club's contact details for the club directory with us.
email soaringnz@mccawmedia.co.nz
Deadline for club news for the next issue 11 September.

AUCKLAND CLUB

Up north, we have just about had enough rain and cold and would like to swap water for electricity from the southern lakes. We can often make a flyable day out of a moderate westerly on the Drury Hills, but our weather station records seem to show that cold southerlies have been more prominent lately.

We have progressed our two seater replacement plans from a project study recommendation by Greg Douglas through to instructor panel recommendation led by CFI Seamus Breen. The next step is a special general meeting for wider membership input. The popular choice so far has been the ASK21 from Alexander Schleicher. Although a long-standing design and popular overseas as a basic trainer, it would, if chosen, be first of this type in New Zealand.

The study was wide ranging, it was exhaustive but also surprising, in the lack of response from some manufacturers to sales inquiries, with types already represented in New Zealand.

After a long-running engine replacement study for the Pawnee tow plane, we have finally been decisive and placed an order for a US factory rebuilt O-540-B4B5 'Wide Deck' at USD31922 plus some import and installation charges. This is an exchange deal which should mean minimum 'down time' for installation, once it arrives.

After a lot of discussion, The Sky Sailing Company (TSSC) is to host another group of Hong Kong based students for two weeks in July, we hope that the weather is to relent for this visit and allow some intensive winch launched flying in their newly re-furbished Puchatek.

Of note of the flying done recently is the first solo by Kris Vette who has progressed quickly through determination and strong application of lessons. Congratulations – Kris.

On a sadder note: the recent resignation of John Garner, former Club President and instructor, from club membership for personal reasons will leave our club with a huge gap to fill. John has had a long and selfless association with the AGC and his many students from the previous 25 years will wish him well over the years ahead and recognize his contribution to the club's operation in just about every facet.

RT

RNZAF AUCKLAND AVIATION SPORTS CLUB

So much for the soaring season, we are now in the 'rain most weekends' season, six weeks since we last managed a club flying day. A spell of nice weekdays, when most of us are at work, and rainy weekends has meant little flying in the past few weeks. More recently, Whenuapai has been doing a refurbishment of the sealed runway adjacent to our grass strip. The customary owner's caution has seen us alternate weekend flying days with the Power guys. Did not help either of us much as the weather ensured it did not matter which day we were allowed to fly – rained on both days.

Highlights from the past six months have included the arrival of Kerry Greig's DG800 imported from the USA. Kerry has taken a careful approach to learning his machine, with several gliding-only flights before getting the motor out in flight, then the big day for the first self launch … our tow plane should climb that well.

The weather and soaring conditions have not been helpful for our cross-country folk, especially those going for the 'Whenuapai to Kaikohe and back' 300 km task. While we have not had the days to achieve this one yet we have been blessed with some good local soaring days, and the opportunity for Lionel Page to visit North Shore airfield during one of the 300k attempts.

Auckland Club: Left: John Bayliss passes by the home thermal at Stevies Quarry in the Discus b – Photo by Marc Morley. Middle: The Spence – It performs three basic functions: it keeps itself dry; it holds wings down during squalls; it faces East. Only available with shorts. Right: The recent major earthworks and associated airfield widening carried out at the Auckland Gliding Club's Drury Airfield Photo by Peter Himmel.

Our local days have been enlivened with 'Toi Toi' paddocks marked on the airfield. Our usual crosswind has caused much destruction of the far fence and provided a good lesson in getting the approach and speed right. Just as well our tow pilots are able to show how it is done. Perhaps longer legs on the instructor doing the measuring would help. Good lessons in flying the circuit and approach based on your touchdown point, not the usual landmarks around the airfield.

Our student pilots are coming on well, Francois Retief has achieved his A Cert, Ben Kistemaker, Adam Dershewitz and Bevin Buchanan are all well and truly on the way in our single seaters. Bevin had a memorable trip to Omarama to experience the soaring conditions at New Zealand's gliding mecca.

Most recent activities have included a number of working bees, the most notable a big effort to fill in all the rabbit holes in our strip.

At least we are past the shortest day, things have got to get better, roll on summer.

GL

CANTERBURY

Flying activities have been a little subdued over the last couple of months due to cold wet weekends but in between there have been some westerly wave conditions enabling some good flights. Two trainee instructors, Paul Jackson and Steve Green, have benefited by these soaring flights to receive advanced instruction from Roger Read. It shouldn't be long before they are able to take their places fully on the instructor panel.

Work has been proceeding on getting our clubhouse up to speed with a large decking area almost completed. Despite one weekend when we had several inches of snow, good turnouts to working bees have been pleasing and these have been boosted by the help of visiting Aucklander Colin Bryan who has also been helping keep the operation moving on the airfield. Thanks Colin.

Some snow on the airfield meant some young people had to find other ways to enjoy themselves as shown in the photos below.

We held a public open day on July 19 when, as well as making more friends among the local community, food was sold to raise money for Youth Glide Canterbury. The new clubhouse was officially opened in the evening and proved to be exactly what we needed in a clubhouse. A good evening was enjoyed by all.

Stewart.

CENTRAL OTAGO

We're still getting soaring most Sundays even though it's midwinter and the days are short and cool.

June 8th was an exciting westerly wave day with rotor to near ground

Regular Club News *continued on page 48*

RNF Auckland Aviation Sports Club: Left Francois Reteif and MW. Middle: Kerry Greig and DG800 UP Right: Terry Dagnin, Derry Belcher weigh IV

Canterbury Club: Left Making use of new GNZ banners. Open Day. Middle:Robert McCaw and Hannah Oakley. Right: Abbey Delore takes off.

GLIDING SOUTH

Bob Martin, originally from London, now flies from Five Rivers and thinks he has found paradise. He says, “Kiwis live in the Ultimate Playground. Anywhere with the Southern Alps in sight is a sight to behold.” He tells us about the club and includes the description of a flight he had on 29th March this year.

For those of you not familiar with our base, Five Rivers is (as the crow flies) about 50 km south of Queenstown and east from Manapouri. If you check out an air map you will see how lucky we are with airspace. I think we may have the distinction of being the most southerly gliding club in the world.

It is well known for very good flying year round and many records, National and World, have used start and turnpoints in our locality. Membership is about thirty. Instruction and running operations are rostered among seven instructors plus half a dozen keen, active pilots/students. Most people travel for one hour plus to reach Five Rivers, from Gore, Invercargill, Queenstown and Dunedin. We also have a training programme in progress for local youth and ATC students.

For several seasons Five Rivers has been predominately winch towing with occasional aerotowing arranged with South Otago Aero Club when needed. Sharing the airstrip with grazing sheep sometimes limits our winch to one paddock, giving 650-750 ft release heights, adequate for getting back to lift on Woody’s Hill. Usually we are able to extend the winch into a second paddock, giving the luxury of up to 1200 ft release heights. We may be the only winch still operating in NZ with steel cable! It has served us well and gets us up! Generally we are winching on vector 27 into the prevailing westerly and landing on 00, uphill in lighter conditions. We also have a cross vector. Sheep can also be a challenge when landing, so ground crews are well trained in clearing the strip. Apart from the ridge, thermal and wave soaring, Five Rivers is also a great area for convergence. Our glider fleet is small, a twin seater Grob103 (MO) and Standard Libelle (IC). There are also various privately owned gliders.

The beginning of June saw a milestone for the club with the property now under new ownership. Previous owner Woody Rouse moved on after a lifetime farming Mid Dome station. You will have spotted Woody’s name mentioned for his aerotowing in Dick Georgeson’s book ‘The Leading Edge’. Woody and his father before him have strongly supported the Gliding South Club and provided use of the airstrip at Five Rivers. In recognition of all his support the recent AGM saw Woody nominated for a Life Membership of Gliding South and we look forward to seeing him back at Five Rivers now he has more time for aviation. Thanks Woody for all you have done for the club.

Visitors Ian, Mark (Oz), Marek (Germany), Woody and 5R members.

IC, West Dome at left

Libelle IC club rooms and Woody’s Hill behind....action above

The following article by Bob Martin was originally written for the Southern Districts Aero Club magazine.

This is my first season flying my own glider. GZP is a Schemp Hirth Discus 2b 15metre single seater. She is a dream to fly ... and hot. She has

Smooth wave lift

a few 'bells and whistles' too, namely the 'state of the art' Altair GPS/plotter which fortunately was fitted just before I decided to purchase, so made for an easy decision. Having come from a hang gliding background 2000+ hours, you will appreciate I am strictly 'seat of the pants' in my approach to flying. That may have to be modified a tad.

On the 29th March the sky looked full of potential but club ships already flying found the lift elusive.

From a launch release at 750 ft I tracked ZP directly back towards Woody's ridge, sinking all the way. The attraction at Woody's was the strong line of convergence cloud over the ridge at about 5000 ft, stretching south towards Lumsden and north to Mid-Dome. I found my first lift here and centred into a steady 50 foot per minute thermal which with patience improved to 100 ft/min. By the time I reached cloudbase directly over Woody's it was 300 ft/min. I was now in a distinct westerly breeze and pushed forwards. To my delight I was almost instantly into smooth wave lift. Quite a contrast to some of the violent wave entry experiences I'd had earlier in the year. I was soon climbing well above the cloud with the wind tending more to the NW. Climbing steadily in the wave to 13,500 ft, the GPS was put to good use to avoid controlled airspace towards Queenstown. Much to my annoyance it is illegal for me to contact ATC until I have qualified for the Radio Telephone exam (which is still a work in progress).

Flying over Lake Wakatipu was a first for me. What a stunning view. Heaps of wind on the lake and much cloud at 6000 ft to the north and west. I turned South again opposite Halfway Bay. It was very tempting to head downwind to Alexandra but my plan was for Mavora Lakes then the Takitimu Range, both for the first time. With cloud filling in below I used the GPS again to turn south at the southern tip of Mavora Lake. I lost touch with the wave on this leg south and heavy sink left me hunting for lift again on the lee-side of West Dome. I was down below 3,500 ft, before finding a decent climb. This was to be a practice run for my Diamond height gain (talked about it before the flight ... but no observer). Leveling out at 19,500 ft my upper body was severely cold with just a thermal top on. Having bettered my personal highest altitude of 16,800 ft hangliding, I decided to save the 20,000 ft altitude for another day. I badly needed to get warm. Pulling 100 knots I tracked towards South Mavora again, south to the Takitimus and homeward via the White Hill windfarm. Arriving over Five Rivers with 9000 ft and warm again, was an opportunity for some overindulgence with wingovers and spin practice. ZP spins beautifully with instant recovery. Five+hrs, 250+ kilometres (my best from Five Rivers), virgin territory, perfect landing, a cold Speights. It was the end of a perfect day, and the start of a love affair.

Central Otago: Left: Soaring above Roxburgh in winter southerly wave (JR) Middle: COFC gliders rigged and ready to tow into the wave above (Phil Sumser) Right: Just landed after a fun afternoon soaring in the wave off the Old Man range (JR)

Regular Club News *continued from page 45*

level. The upper breeze was 70 kts and the lift averaged over 16 kts at times. The last flight before dark was, by necessity, just 35 minutes. Still time for a low aerotow the Twin into rotor, then a climb in wave to over 13000 ft and back to the ground with brakes out all the way and praying to avoid the rotor. Phil reckons it took longer to descend than climb!

July 6th was another wave day, this time much more southerly. A good turnout of gliders all had scenic flights down to Roxburgh and beyond using wave from the Old Man and Mt Benger. It's pretty cold above 10,000 ft but on a sunny day you can just about put up with a couple of hours parked high above the blowing snow. Hats and gloves should not be forgotten though!

JR

HAWKE'S BAY GLIDING CLUB (HASTINGS AERODROME)

As to be expected, the winter weather has really slowed down activity over the last few weeks, although some days with gloomy forecasts turned out surprisingly good, or at least flyable. As with other smaller clubs we are doing a fair bit of soul-searching and number crunching to see a way forward from our small membership. The photo shows a sprightly Mrs Rei Arnold going for a trial flight for her 80th birthday.

GLIDING MANAWATU

Well I must start off by saying cheers to the last summer of simply brilliant flying conditions. We have had a very dry summer, and I mean dry, and our members have made the most of it. Many of the members have logbooks that are low on entries but high in flying hours.

As well as a great soaring season, we also received Pub Charity funding to re-cover the wings of our Pawnee CIG! We were hoping at best to receive part funding of maybe $5000 but we were blown away to receive the entire amount of around $17000 in one go.

Hawkes Bay

To the pub charities credit, they obviously realised the importance of wings to a tow plane. Our club owes thanks to Ian Sheppard for sourcing and delivering the application and to Mike O'Donnell for his efforts in making sure that our club met all the accounting criteria to make the application valid.

On the membership front, the club has settled on an important strategy. We have decided to focus on the converted rather than the masses . We will put our effort into, firstly our existing members, then into the people who have come to take a trial flight or have visited to find out about gliding, but also target the wider local aviation community. With a major air force base, airport and flight training schools nearby, we should have a large and willing audience. We will be forgoing displaying a glider at public events as over the years that has not produced one new member.

We now have 4 trainees with another joining us a couple of weekends ago. A couple of them (Stuart Anderson and Peter Familton) come to us from Ohakea, are already professional pilots and have recently soloed. Patrick Frame is snapping at their heels. Stuart has since joined the tow pilot's ranks. We have also decided upon an attractive membership programme for high school students.

Our annual Camp, held in February, was a great success. We had easterly wave, excellent thermals and some decent cross-country flights. Our treasurer did his 5-hour badge flight on the Friday. A number of Wellington Club members joined in. There is something to be said about quietness of the Kawhatau Valley, the soaring it provides, plus the tales that are spun over a beer at the end of the day. A big thanks goes out to Cam Phynn for letting us use his land for the camp.

Well done to Ron Sanders for completing the ratings for two new tow pilots for us, and we have a third on the way. "One of the bonuses of having a flight training school on your airfield"! These three new pilots mean we have a nice quota of TPs for the club. I've noticed the young guys sure do like the 260 horses up front.

Well that's about it for this issue so till next time, "keep your speed up and your altitude high".

AM

NELSON LAKES

The winter weather has delivered a mixed bag for our enthusiastic Lake Station pilots. Last weekend saw the airstrip covered by a deep layer of snow and roads closed. Preceding weekends have generally suffered from a lack of wind and absence of ridge lift. This coupled with the seasonal weak thermals has meant only a small window of flying opportunity on the better weekends. We are reluctant to accept that ours is a seasonal sport. So when we can't fly we conjure up ways to fly better. The club recently voted in favour of purchasing a new second hand winch. We hope to source a twin drum Tost with a more modern and powerful engine. If we can successfully replace our wire cable with lighter dyneema, and produce more torque with the newer engine, we should be able to launch our expectant pilots a few hundred feet higher into the sky. Combine this with a greater frequency of launches and pilot frustration will become an historic condition.

Flying in June. South Canterbury member Jim Dougherty flying M.Y. with John Eggers about 11,500 feet near Fairlie in South West wave. The flight by John was described as pleasant but bloody cold.

Regretfully Arthur Jordan who was a founding member of our fine club in 1960 has resigned from his role as engineer. He has put an enormous amount of effort into the club for almost fifty years and his talents are many. He designed and built our current winch in 1989 and it serves us extremely well to this day. It heaves a plane 1500 ft AGL every 7 minutes, and has done so many thousand times. An astonishing piece of kiwi engineering! Members past, present and future appreciate his efforts. Thank you Arthur!

In the meantime most of us are sheltering indoors impatiently looking forward to improving weather, a full complement of planes and perhaps some higher launches. Roll on summertime!

Ken Montgomery

PIAKO GLIDING CLUB

Turbulent air is found not only whilst flying your glider! Our AGM held in early May had its fair share of rough air as a few club issues were thrashed out. Steve Care becomes President as Bill Mace has made the decision to stand down after a three year stint. There are a few welcome fresh additions to the committee as well.

Our new acquisition ZK-GXP, a Discus B, is now paid for and has been received with admiration by those who have taken her for a spin (not literally!). The updating of our fleet with the purchase of the Discus is part of our recently compiled five year plan that is now being implemented. The ideology behind the new glider is to help retain and inspire new members that have soloed, gained their QGP's and want to progress beyond the lower performance ships i.e. Club Astir and PW5.

On the subject of new pilots: our winter training programmes have been very successful. The previous A certificate course that ended during May had three of the four students fly solo. Despite some bad weather, the latest A certificate syllabus has four trainee pilots that are progressing well, and the dedicated glider flight simulator that Bill Mace produced has been put to good use. The aforementioned simulator, which is funded and owned by the Matamata Soaring Centre, is soon to be dispatched to Tauranga Gliding Club for test and evaluation purposes regarding training.

Our new Promotions Officer, Tim Bromhead, raised fantastic local awareness of our club by publishing some brilliant articles in the local press along with awesome photos that promoted the current beginner's training path. The response generated an overflow to the point that we already have people awaiting the next course!

Dom.

SOUTH CANTERBURY

Not a lot to report from South Canterbury as the "7 day rubbish weather cycle" has hit us with a vengeance and have only been able to fly twice out of the last 6 weeks. Mind you, last Sunday helped to ease the pain with some nice gentle south west wave about which two members, Jim Dougherty and John Eggers took advantage of by sharing a flight and the costs in our Grob 103, M.Y. Very pleasant, although rather chilly at 12,000ft.

The club has had a couple of working bees of late, bird proofing our hangar, hopefully to have ready for the spring. One of the days, the fog didn't really lift and most of the day was about 1 to 2 degrees C. Dedication was impressive.

Our bi-annual "Jack & Enid Hutt Gliding Scholarship Trust" is about ready to kick off again so we are hopeful of attracting some much needed new members. This will keep us occupied over the next couple of months or so.

The club has obtained funding from "Pub Charities" and "The Southern Trust" for purchase of the new ELTs which is a big relief to our finances and our sincere thanks goes to both of those organizations for their assistance.

Our AGM and Annual Dinner are both just around the corner. The year speeds on, just like the "galloping bureaucrats"

JDE.

GLIDING SOUTH

Extensive, excessive air time at Five Rivers has left time a bit thin regarding club news for recent issues ... now just to come clean ... actually the weekend weather has not been complying recently, in fact a distinct lack of air time since April. However prior to that some excellent soaring (see Bob Martin's story elsewhere).

A summer milestone was the firing up of the club BBQ in February. It was a great day, a great crowd including guests from Invercargill, Alexandra, Wardell's and Canada. Plenty of action with aerotowing, field landings, trial flights etc.

More recently there have been some challenging flights in convergence, light thermal on the ridges and plenty of circuit training. Winching has been extended to give up to 1200 ft releases. The clubrooms have had an early spring clean (thanks Karen M).

BM

SOUTHERN SOARING

In preparation for the new season, our Pawnee Southern Belle, has been stripped of most of its spray gear. We have decided to leave the hopper in place as the advantages far outweigh the disadvantages. The hopper is relatively light and is an excellent place to store additional fuel for long-distance retrieves, ropes, or personal equipment. The two 23.5 litre containers purchased for the ferry flight from Auckland fit snuggly in the bottom of the hopper and provide an additional 45 minutes flying. This means we will have the range to retrieve gliders from as far north as the Rakaia River or as far south as Waikaia – locations I've done retrieves from before. If we removed the hopper and wanted storage space, new top and bottom plates would have

Southern Soaring: Southern Belle at Omarama after the removal of spray gear.

Southern Soaring: SF-25 Falke glider operated by Byron Bay Gliding

to be manufactured, a side door fitted and an internal tray built to hold equipment as the area behind the firewall contains two fuel pumps and the fire extinguisher system – additional equipment not normally seen in earlier model Pawnees.

On a recent trip to Australia I was able to evaluate one of the Scheibe SF-25 Falke gliders operated by Byron Bay Gliding. Built in the '70s, these aircraft are powered by a Limbach (modified Volkswagen) engine and have moderate climb performance on a good day. With only a 24:1 best glide ratio at 37.5 knots, you need good conditions to soar cross country but, like all aircraft, the design is a compromise and the glider's main advantages are cheap operating costs for circuit training and the ability to operate without a wing runner or tow pilot. On the flight I did with Richard Fethers (great surname for a glider pilot!), we flew to Mt Warning and found some weak thermals during a one and a half hour flight.

Chris

TARANAKI

Any thoughts of a drought have long gone with the continued presence of Consistent Rain And Precipitation type of weather. Ah well, things always balance out in the end so good conditions must come again. We might even put to good use some of the new bits of gear that we have been able to buy with Pub Charity grants and embark on a new (for us) training initiative.

As with other clubs, we are looking a bit nervously at the continued climb in fuel costs, so a shift in tow charges must come soon. One could view it like this: the bad news is that fuel costs have gone up … the good news is that there has been no flying. Always helps with that sort of logic if you're Irish!

Welcome to Miss Anna Klauser who is an exchange student at a local high school and the proud holder of a brand-new German glider pilot's licence. She used our web site to track us down. We have also some new members in the wings, so to speak, and trust they can enjoy some good flying this season.

Peter Miller and Tim Hardwick–Smith journeyed south recently to Waipukurau and returned home with a Discus B in tow. They look forward to giving it some air time in due course. A big thank-you to Chas Chesterman for his help in this transaction.

Finally, we note the passing of Allan Barnes, a committee member during the German Hill heyday. Allan was an enthusiastic and highly skilled aero modeller and a NZ representative and record holder.

PJM.

YOUTH GLIDE OMARAMA (OTAGO GLIDING CLUB INC)

Winter is our planning time – and planning we are doing. The season ended with a weekend of flying around the snow showers for the hardy few and gave us a chance to tidy up around the camping ground and airfield at Omarama. The season was extremely successful with first solos, badge flights and even our first QGP. Over the past season we have had tremendous support from many people, both financially and with assistance. To everyone who has helped we send a great big thanks. This coming season we have several goals: firstly to consolidate the training for those we have introduced, secondly to complete the purchase of NG for the use of those moving on to single seaters and to establish ongoing funding relationships to enable continued development of the group.

On a very positive note, two of our members have been successful in achieving huge goals in life. Chris Shields and Tim Leslie have both been accepted for training with the RNZAF, Chris as an Avionics technician and Tim as a Pilot. Chris has almost completed his recruit course and Tim started mid July. Given the input that all involved with Youth Glide Omarama have had with these two lads, we share in the satisfaction of their successes and wish them all the best for their careers.

TS

Youth Glide Omarama Chris Shields

Youth Glide Omarama Tim Leslie

Taranaki: Gliding back to Stratford on a February afternoon. Tim Hardwick Smith

GNZ members are eligible for one free non-commercial classified advertisement per issue. Deadline for receipt of advertising for our October issue is 22 September 2008

FOR SALE

ASW 20L ZK GDF (GERMAN MADE) • 20's are known as one of the most pleasant gliders to fly with a high performance. Tinted canopy. 16.6 extention, wing covers Full instruments including Dittel Radio, Terra transponder (A&C), Cambridge GPS and L-Nav. Oxygen and other gear. Parachute, tow out gear. Coloursteel trailer will be finished soon. Current C of A. Enquiries welcome. For more details please contact Delio H 04 297 0668 M 0274 277 5638 E delio.fagundes@gmail.com

STD CIRRUS • Trailer, parachute, barograph. All in good condition. $26,000 or offer. Call Ian Barber 04 904 9443 (prefer evenings) Email ian.barber@paradise.net.nz

COBRA 15 GLIDER (ZK-GJE) FOR SALE • Best condition Cobra in the country, complete with tow out gear and trailer in good condition. It is fitted with an Icom radio and a Borgelt B40 vario. This glider is fully aerobatic, easy to fly and has a 38:1 glide ratio – comparable with a Libelle or Standard Cirrus. More details are available on: http://www.gliders-4sale.co.nz. Asking price: $18,000; but I'm open to offers, so don't be shy in contacting me. Contact Russell Jones, (09)527-3430 or email: PrismConsult@gmail.com

OMARAMA 18M HANGAR SPACE • For sale in Third hanger, middle eastern side, good neighbours and has power available for details contact nigeldavy@clear.net.nz or phone Nigel on 0274 321 314

KA7 ZK-GDN • Two seat vintage glider in good flying condition. Owned by Taranaki Gliding club and currently leased by the Aukland Aviation Sports club. $12,000 ono Contact Tim Hardwick-Smith 06 764 7573 or timhs@farmside.co.nz

WANTED

OMARAMA HANGAR SPACE REQUIRED • 17 – 20 metre, rent or purchase considered. Contact mark.aldridge@cropmark.co.nz

Ed Note: We have put the Omarama hangar wanted and hangar seller in touch with each other but don't know the outcome.

INSTRUCTOR COURSE

TAUPO • GNZ will be running a course for issue, upgrade or refreshing of Instructor ratings 26th-28th September 2008
Contact Brian Chesterman chesman@xtra.co.nz to register interest

Sailplane Services Ltd

SCHEMPP-HIRTH

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