ALPINE FLYER
September 2011
Mt Beauty Gliding Club Inc
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MBGC Presidents' Report

Vale Manfred Rueff

Manfred Rueff flying his IS28M2 motor glider, VH-GRK near Mt Bogong

Manfred Rueff, a founder of Mt Beauty Gliding Club, passed away at Mt Beauty on 1 September 2011 after a short illness.

Manfred was well known by the Australian gliding fraternity and first experienced gliding as a 14 year old in Germany during World War 2 when he learned to fly primary gliders, the forerunners of today's high performance gliders.

He then took up gliding again at Tocumwal in the 1970's after moving to Australia and settling at Mt Beauty to work on the Kiewa Hydro Power Scheme.

He became interested in forming a gliding club after discussions with his friend Ray Addinsall of Mt Beauty, and in 1976 the Mt Beauty Gliding Club was formed with just 11 inaugural members. Ray Addinsall also unfortunately passed away this year on 15 March 2011.

In the early days of the club, trips were made to Bunn's property between Albury and Howlong and members flew with the Albury Gliding Club using aerotow launches.

During this time the Mt Beauty airfield construction was also underway. Manfred was a key player in this construction and the ongoing maintenance of the airfield. For over 30 years he almost single handedly cut the grass on the airfield for Alpine Shire on a voluntary basis and maintained their tractor mower. He was a voluntary member of the Airport Management Committee from its inception.

After establishing the club, Manfred and Ray Addinsall purchased an IS28 glider, VH-WVQ, from Riley's at Tocumwal and the club used this glider until it was damaged in 1993. With support from club members, Ray and Manfred purchased another IS28 glider VH-WVU, and this glider is still used by club members today for training and dual flights.

Manfred purchased a winch from Latrobe Valley Gliding Club in the early days of the club and winch launching commenced at Mt Beauty.

Manfred trained to become an instructor and was Chief Flying Instructor until 2005.

He was appointed Secretary at the inaugural meeting of the club in 1976 and held this position until 2001. He also held the positions of Technical Officer Operations and Airworthiness for over 25 years.

Manfred was presented with a Life Membership Certificate by club President Andrew Evans at the club's Annual General Meeting on 9 March 2003.

Manfred was also presented with a Living Treasure Award by the Victorian Soaring Association in 2006 in recognition of his substantial services to gliding.

Manfred was a man of few words and many effective actions – a quite achiever. He was very methodical and was always willing to

help. He allowed the club to regularly use his tools and workshop for glider maintenance. There wasn't much Manfred didn't know about aircraft maintenance and engines. He was of the old school and never took short cuts.

Aging pilots, like drivers often become a concern, but Manfred's mind was sharp to the end and only a week before his passing he was engrossed deep in the internal workings of his motor glider engine, pulling it apart for servicing after flying it shortly before.

The success of Mt Beauty Gliding Club is due to the major contributions made by Manfred and Ray Addinsall, through their many hours of voluntary work for the club and their substantial financial contributions though provision of gliders, a winch and hangar space. Manfred's and Ray's contributions over the 35 years since the formation of the club have placed it on a very strong footing for ongoing success in current times when many gliding clubs are struggling to survive.

As well as being greatly missed by his family, Manfred will be also be greatly missed by members of Mt Beauty Gliding Club for his mentoring and guidance, but they are proud that the club he founded will continue in his memory.

Replacement training glider

With the likely grounding of the club 2 seater training glider IS28 VH-WVU in 2012, your Committee is proactively researching a suitable replacement and funding options to achieve this.

One option is to seek interest free advances on flying accounts from club members. This technique was utilised to purchase our current IS28 training glider. The advance would effectively be repaid as you incur costs against your account in flying and MBGC membership fees.

Other less attractive funding options include interest payable loans from GFA, a commercial lender or from member(s).

If you are interested in assisting the club by pledging an interest free advance on your flying account to help fund the purchase of our new club 2 seater training glider, please contact President Andrew Evans by email at andrewe@g-mwater.com.au.

PW6 2 seater training glider. One of several gliders currently under consideration for purchase by MBGC

VSA Junior Pilots Grant

I am delighted to advise that my application to the Victorian Soaring Association for funding of a further $1000 towards our junior training program has been successful! See the approval letter from David Cleland, Secretary VSA below. This is great news on top of junior pilot Laura Sullivan's first solo flight (see her story below).

"I am pleased to advise that your request for assistance of $1,000 for subsidies for five junior members has been approved. The VSA committee of management congratulates your club on its initiative in presenting this request and hopes that this project will greatly benefit your club and hence gliding in general.

The VSA has decided to use your project has a trial for possibly wider assistance in future years whilst the VSA has resources above strategic amounts. You may be aware the VSA primary source of income is the $10 annual fee from members. We have less than 600 members today, so our income stream is quite limited.

As previously advised we would like your acceptance of an acquittal process at the end of this financial year detailing the names of each junior, the amount of flying they did and the associated costs and hence what portion of their flying costs was covered by the subsidy. In time it would also be good to know over the years the retention rate of your juniors since your own subsidies started. If this meets with your approval, our Treasurer, Harry Page will forward a cheque for $1,000 made out to your club.

Cheers

David Cleland

VSA Secretary

Two of our junior pilots on 28 Sep, Laura Sullivan and Kenton Ford, who are amongst the recipients of the VSA Junior Pilots Grant.
Photo - Andrew Evans

Safe flying.

Andrew Evans - President / Alpine Flyer Editor

Member Editorial Contributions

Thanks to Mark Bland, Laura Sullivan, Ian Cohn and Paul Jackson, CFI of Canterbury Gliding Club in NZ for their newsletter contributions this month. All members are encouraged to submit stories and photos for publication. If you have any suggestions for improvements to the newsletter, send those in as well. All feedback welcome. It's your publication.

Don't forget to follow club activities on our Mt Beauty Gliding Club Facebook page where you can download photos and comments about your gliding exploits and interact with like minded individuals. If you don't know how to do it ask your kids or grandkids.

Any members requiring further details of any of these issues can contact me on: andrewe@g-mwater.com.au.

Member News

Laura Sullivan goes solo

In the Weekly Update issue dated 1 Sep 2011 we saw a photo of Laura Sullivan and Ken Darling after their solo flights. Here is Laura's story about her experience:

"On Saturday 27 August, I had just flown with Mark Bland (one of my instructors) in the IS28 two seater glider VH-WVU, when he asked me if I wanted to have a go on my own. I answered him with a very excited yes!

Once I was in and ready to launch, I was thinking to myself "WOW I was not expecting this and that I was to concentrate on my flight, not the people who were watching me". When I was at the top of the launch I realised I was treating my flight as if there was an instructor in it with me because I found I was talking to myself a lot.

I soon picked up a bit of a bumpy thermal (which let me know they were starting) and stayed in it for a while, but then dropped out of it and when I tried to come back into it, it had disappeared and I was then flying in sink. So I decided I better start downwind.

I did the FUST check and the downwind call, then I focused on landing the glider safely on the ground. Once I was on my final turn, I knew I was going to overshoot the fence by far, so I pulled the air brakes out full until I was down to the height I wanted to be, then put them in half way. I then landed safely on the runway.

Once I had opened the canopy, Ben Talbot and Steve Bradbury were there taking videos and photos of me, talking about how my flight went and shaking hands with Mark Bland for completing my first solo. After my first flight I did two more which were great and another amazing experience for me!"

15 year old Laura Sullivan after her first solo flight on 27 August
Photo - Steve Bradbury

Ian Cohn Waves at the Rock Hoppers from 8300 ft

"The aim was simple. To complete a long flight in the local area to gain some OLC points. The outlook seemed good on 19 Sep with a forecast of strong north to north easterly winds with higher than average temperatures that would allow ridge lift and thermals to at least around 6500 ft, the maximum height of the local terrain. So I daily inspected the Pilatus and positioned it at the launch point. With the surface wind sock indicating a 5 kt north westerly breeze, I elected to go first

at 12:30 in spite of Andrew Evans advice to wait for the one o'clock thermal. Needless to say, he was correct and I drifted back to earth after only 13 minutes.

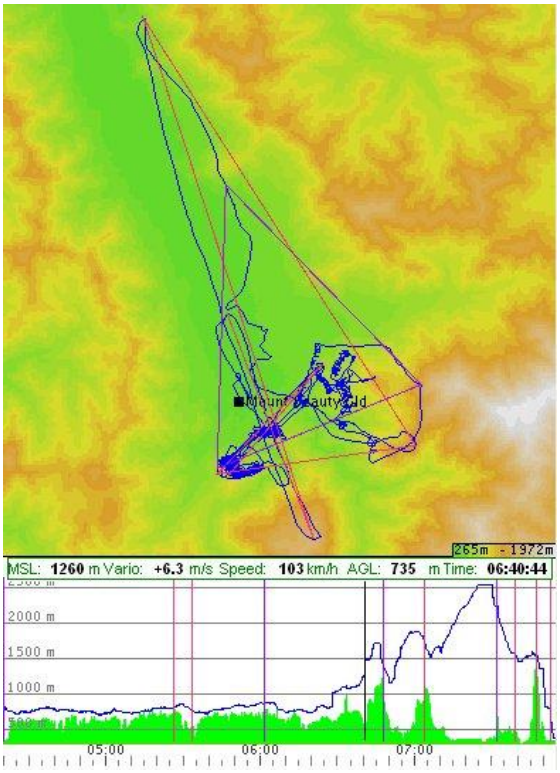
Andrew then launched at 13:15 in the ASW19 and lasted 22 min. Things were not going to plan, even though it was warming up and the breeze was consistent. Nevertheless, the conventional wisdom is that the Pilatus will stay up on the strength of an oily rag so I launched again at 13:30, this time succumbing to gravity after 25 min in very weak ridge lift with no thermals to be seen. Duncan Robertson launched in the Astir at 13:45 and only lasted 7 min, so things were looking grim. However, Mark Bland then decided to launch at 14:15 in the ASK-21mi. Using the iron thermal he launched to 3800 ft and reported some rough thermal lift near Bogong Hill.

Being a masochist, I then thought third time lucky and winch launched again in the Pilatus at 14:20. I reached Mt Beauty Hill at 2300 ft and commenced a very slow climb in ridge lift to 2600 ft only to drift down again to 2300 ft after 40 min airborne. There were no thermals to be seen at all. Anyway, being a masochist, I persisted in the very weak ridge lift and for a change of scenery went south west a couple of km to the slightly higher Hollonds Hill, eventually climbing to the dizzy height of 2800 ft.

Becoming emboldened, I then flew around 4 km out to the northeast to the TV repeater mast below Bogong Hill. This resulted in a loss of height so I scrambled back to Mt Beauty Hill arriving back at around 2300 ft to start the process again. By this time I had been up for an hour and twenty minutes dodging eagles and three other gliders scraping along the limited local ridge space and had made no progress at all. So much for OLC points. Sensibly, Mark Bland gave it away at around 16:10 and then Andrew Evans landed at 16:15 to go to the gym, leaving only me and Duncan flying.

I decided to make a final run out to the TV repeater again before joining the others at the hangar. When I reached the TV repeater there seemed to be my first thermal of the day giving a consistent 1 kt climb so I persisted now having been airborne for two hours. Duncan came over in the Astir to join me, but flew off again leaving me alone. After the initial slow thermal climb I suddenly flew into very strong and turbulent lift gaining 800 ft in less than a minute followed by strong turbulence. I then flew near Bogong Hill and found another patch of strong lift rocketing to 5600 ft.

Thinking that some distance points might now be a prospect, I tracked towards Little Mt Bogong only to find horrendous 10 kt sink. So speeding up I went back to Bogong Hill and again found strong turbulent lift. By now I had decided that I was in a rotor under a wave formation. Tracking towards Mt Beauty, I entered smooth wave lift of around 3 kt and continued to fly up the Kiewa Valley at around 40 kt airspeed. My ground speed however, was only 10 kt so I wasn't making much headway. Nevertheless I continued my slow climb to the northwest to 8300 ft. By this time the sun was sinking towards the horizon and I thought that I had better get a move on to get those distance points before sunset. So levelling out, I increased airspeed to around 70 kt to make progress into wind at a ground speed of around 35 kt. Speeding up a bit further I then started a slow descent with a target of turning back to Mt Beauty at 5000 ft. I did this at Ceccanti's winery and with an airspeed of 60 kt giving a ground speed of 90 to 100 kt, was amazed to find that I was maintaining height. So I arrived at Big Hill south of Mt Beauty at 5300 ft. By now the sun was about to set so I opened the airbrakes and descended to Mt Beauty. There was only a light south westerly cross wind so I landed at 17:55 on Runway 14 about 15 min before official sunset."



Ian Cohn's OLC trace of his wave flight on 19 Sep

Looking back on the flight, there was about 4 octas of random alto cumulus, but no defined lenticular clouds showing where the wave was located. The wave was located in the middle of the Kiewa Valley, being generated by the NNE wind on the ranges on the northeast side of the Valley. If I had had more daylight, I consider that the wave lift would have gone to well over 10,000 ft.

CFI Column

As Andrew has asked me to contribute to the new monthly Alpine Flyer I thought I would peruse the internet to find some interesting subject matter. Two topics are provided this month:

Safety Rules and Tips for Ridge Flying

We've had several days recently with weak conditions on our local "Mt Beauty Hill" allowing sustained flight for up to five gliders. Everyone needs to be reminded of the importance of extra extreme vigilance in these situations. Remember there may be no second chance if things don't go right. Our conditions are often a combination of weak thermal and light wind which requires lots of "S" turning and the odd 360° turn when safe to do so. You must follow conventional rules and give way even if it means falling out of lift and having to join circuit. Not everyone has the same level of experience and if you are not confident, fly away or get some extra training.

Ridge flying makes for some great flying when the wind is from the north at Mt Beauty, however, it can provide unsuspected surprises. The ridge not only offers continuous lift, it can also create eddy currents and extreme turbulence that can send you down into the trees or stall you.

Additionally, when there are multiple gliders flying the same ridge, there are traffic rules that must be heeded to ensure everyone's safety. The ridge flying rules are:

1. All turns when running the ridge and you are low or close should be AWAY from the ridge.
2. If you decide to thermal close to the ridge you MUST ensure you have a balanced turn and ample speed before committing to the turn towards the hill. If in any doubt don't turn.
3. If you are going to overtake a glider on the ridge, if at all possible, pass the glider to the inside of the ridge so he will not turn away from the ridge into you. However, if you cannot pass on the ridge side due to clearance, either slow and wait for clearance or inform the glider that you want to pass and ask that he give way (this is best done anytime you are passing fairly closely).
4. ALWAYS look beside, up and as far back behind you as possible before you turn.
5. Do not follow closely behind a glider on the ridge. Make sure the pilot in front of you can make an unannounced turn without you overtaking him. If you suspect that someone is following you too close, be sure to ANNOUNCE that you are turning.
6. Fly at least 10 knots above your glider's stall speed (also considering the wind speed) when on the ridge - faster if possible to give yourself more manoeuvrability and energy to escape from any situation on the ridge like an eddy or turbulence. DO NOT FLY SLOW OVER OR AROUND THE RIDGE! Be aware of the wind speed and the ramifications it can have on your glider when turned towards the ridge (hence down wind).
7. BEWARE of knobs or crevices in the ridge that can generate eddy currents on their back sides even though you are on the front of the ridge.
8. Never fly into the lee (down wind of the lift or over the back of the ridge) on a ridge day – ever!
9. When flying towards the sun while on the ridge, plan on having more altitude over the ridge than flying away from the sun. It is very hard to see and judge ridge height when flying towards the sun, especially late in the afternoon.
10. The best soaring may be out from the ridge and not above its crest. Stay as far away from the ridge as you can for your safety and especially with many on the ridge at the same time.
11. Keep the chatter down when lots of pilots are flying the ridge so turns and situations can be announced and most of all – LISTEN!
12. If you have not flown on the ridge, work with someone who has a lot of time ridge soaring before you even think of doing it on your own.

Ridge soaring is fun, but does require a lot of concentration and some basic knowledge and compliance to enjoy it safely.

Thermalling Techniques

This month I've found a different explanation of finding thermals from http://www.pilotoutlook.com/glider_flying/thermal_soaring which I've edited slightly.

Part 1:

When searching for lift, use the best speed to fly, that is, best L/D speed plus corrections for sink and any wind. This technique allows glider pilots to cover the most amount of ground with the available altitude.

Once a thermal has been located, enter it properly, so as not to lose it right away. The first indicator of a nearby thermal is often, oddly enough, increased sink. Next a positive G-force will be felt, which may be subtle or obvious depending on the thermal strength. The "seat of the pants" indication of lift is the quickest and is far faster than any variometer, which has a small lag. Speed should have been increased in the sink adjacent to the thermal, hence as the positive G-force increases, reduce speed to between best L/D and minimum sink. Note the trend of the variometer needle (should be an upswing) or the audio variometer going from the drone to excited beeping and begin the turn at the right time in the anticipated lift. If everything has gone perfectly, the glider will roll into a coordinated turn, at just the right bank angle, at just the right speed and be centred perfectly. In reality, it rarely works that well.

Before going further, what vital step was left out of the above scenario? CLEAR BEFORE TURNING! The variometer is hypnotic upon entering lift, especially at somewhat low altitudes. This is exactly where pilots forget that basic primary step before any turn - looking around first. An audio variometer helps avoid this.

To help decide which way to turn, determine which wing is trying to be lifted. For instance, when entering the thermal and the glider is gently banking to the right, CLEAR LEFT, then turn left. A glider on its own tends to fly away from thermals (Figure 10-7). As the glider flies into the first thermal, but slightly off centre, the stronger lift in the centre of the thermal banks the glider right, away from the thermal. It then encounters the next thermal with the right wing toward the centre and is banked away from lift to the left and so on. Avoid letting thermals bank the glider even slightly. Sometimes the thermal induced bank is subtle, so be light on the controls and sensitive to the air activity.

At other times there is no indication on one wing or another. In this case, take a guess, CLEAR, then turn. As a note, new soaring pilots often get in the habit of turning in a favourite direction, to the extreme of not being able to fly reasonable circles in the other direction. If this happens, make an effort to thermal in the other direction half the time. Being proficient in either direction is important, especially when thermalling with traffic.

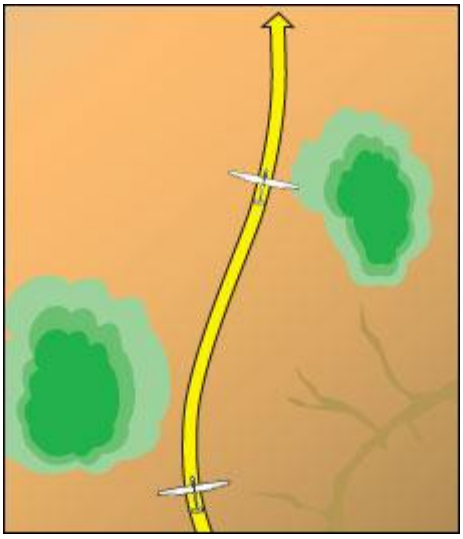


Figure 10-7. Effect of glider being allowed to bank on its own when encountering thermals.

Optimum climb is achieved when proper bank angle and speed are used after entering a thermal. The shallowest possible bank angle at minimum sink speed is ideal. Thermal size and associated turbulence usually do not allow this. Large size, smooth and well behaved thermals can be the exception in some parts of the country.

Consider first the bank angle. The glider's sink rate increases as the bank angle increases. However, the sink rate begins to increase more rapidly beyond about a 45° bank angle. Thus, a 40° to 30° bank angle may increase the sink rate less than the gain achieved from circling in the stronger lift near the centre of the thermal. As with everything else, this takes practice and the exact bank angle used will depend on the typical thermal, or even a specific thermal, on a given day.

Normally bank angles in excess of 50° are not needed, but exceptions always exist. It maybe necessary, for instance, to use banks of 60° or so to stay in the best lift. Thermals tend to be smaller at lower levels and expand in size as they rise higher. Therefore, a steeper bank angle is required at lower altitudes and

shallower bank angles can often be used while climbing higher.

Remain flexible with techniques throughout the flight. Also, be conscious of centralising the rudder after banking and maybe even apply small amounts of top rudder to stop the nose dropping in steeper bank angles.

If turbulence is light and the thermal is well formed, use the minimum sink speed for the given bank angle. This should optimise the climb because the glider's sink rate is at its lowest and the turn radius is smaller. As an example, for a 30° bank angle, letting the speed increase from 45 to 50 knots increases the diameter of the circle by about 30 metres. In some instances, this can make the difference between climbing or not. Some gliders can be safely flown several knots below minimum sink speed. Even though the turn radius is smaller, the increased sink rate may offset any gain achieved by being closer to strong lift near the thermal centre.

There are two other reasons to avoid thermalling speeds that are too slow: the risk of a stall and lack of controllability. Distractions while thermalling can increase the risk of an inadvertent stall and include, but are not limited to: studying the cloud above or the ground below (for wind drift, etc), quickly changing bank angles without remaining coordinated while centering, thermal turbulence, or other gliders in the thermal. Stall recovery should be second nature, so that if the signs of an imminent stall appear while thermalling, recovery is instinctive.

Depending on the stall characteristics of the particular glider or in turbulent thermals, a spin entry is always possible. Glider pilots should carefully monitor speed and nose attitude at lower altitudes. Regardless of altitude, when in a thermal with other gliders below, maintain increased awareness of speed control and avoid any stall / spin scenario.

Controllability is a second, though related, reason for using a thermalling speed greater than minimum sink. The bank angle may justify a slow speed, but turbulence in the thermal may make it difficult or impossible to maintain the desired quick responsiveness, especially in aileron control, in order to properly remain in the best lift. Using sufficient speed will ensure that the pilot and not the thermal turbulence, is controlling the glider.

Soaring pilots' opinions differ regarding how long to wait after encountering lift and before rolling into the thermal. Some pilots advocate flying straight until the lift has peaked. Then, they start turning, hopefully back into stronger lift. It is imperative not to wait too long after the first indication that the thermal is decreasing for this manoeuvre.

Other pilots favour rolling into the thermal before lift peaks, thus avoiding the possibility of losing the thermal by waiting too long. Turning into the lift too quickly will cause the glider to fly back out into sink. There is no one right way; the choice depends on personal preference and the conditions on a given day. Timing is everything and practice is key.

Usually upon entering a thermal, the glider is in lift for part of the circle and sink for the other part. It is rare to roll into a thermal and immediately be perfectly centred. The goal of centering the thermal is to determine where the best lift is and move the glider into it for the most consistent climb.

One centering technique is known as the "270° correction" (Figure 10-8). In this case, the pilot rolls into a thermal and almost immediately encounters sink, an indication of turning the wrong way. Complete a 270° turn, straighten out for a few seconds and if lift is encountered again, turn back into it in the same direction. Avoid reversing the direction of turn. The distance flown while reversing turns is more than seems possible and can lead away from the lift completely (Figure 10-9)

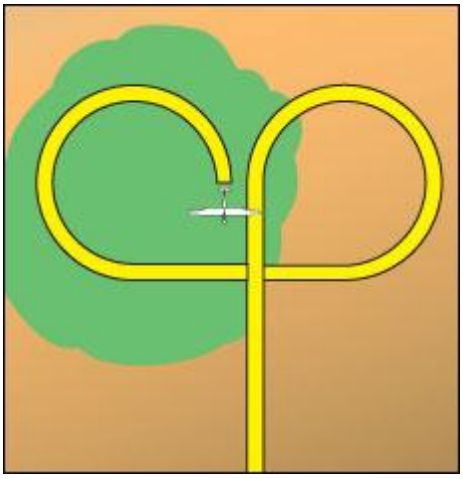


Figure 10-8. The 270^{o} centering correction.

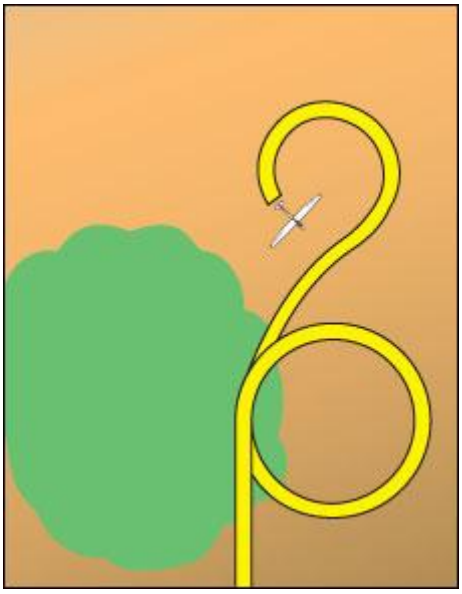


Figure 10-9. Possible loss of thermal while trying to reverse directions of circle.

More on thermalling techniques next month.

Mark Bland - CFI

News From Your Committee

The MBGC Committee met on 18 September 2011. The following is a summary of issues dealt with by the Committee:

- Winch replacement.
- Promotion of AEFs, particularly with Bright tourists.
- Memorandum of Understanding for the use of Pilatus VH-GCD by non syndicate members.
- Appointment of interim Secretary.
- Sign for Community Bank.
- Hangar space allocation.
- Replacement of IS28 VH-WVU.
- Ownership status of IS28 VH-WVU.
- Manfred Rueff's GPS.
- Old hangar usage.
- VSA funding for information sign.
- M Pobjoy notice of intention to resign from the Committee.
- Community Bank grant availability for FLARM for IS28 VH-WVU.

If you require details of any of these issues contact Andrew Evans at: andrewe@g-mwater.com.au.

MBGC Committee meeting 18 Sep. L to R: Mark Bland, Mike Pobjoy, Andrew Evans, Ian Cohn, Kitty Vigo, Richard Todd, Steve Bradbury. Photo - Andrew Evans' self timer camera

Biennial flight review NZ style

Paul Jackson CFI of Canterbury Gliding Club in NZ and friend of MBGC gave Terry Delore, a multiple World Record holder, his BFR a couple of weeks ago. What did they do? Well given Terry is a cross country expert, they went cross country – 1,000 km in fact.

Wave over the Hawkduns from Omarama Saddle.

Terry Delore does 1,000 km in his sleep! Photos – Terry Delore

Members of the Monday flying team waiting for the 1.00pm thermal on 19 Sep to fly the ASK21 VH-GVS. Ian Cohn catches up on some sleep while Mark Bland practises his German on visiting backpacker Julia Mohr.
Photo - Andrew Evans

Mark Bland preparing to take visiting German soaring pilot Julia Mohr for a flight in ASK21 VH-GVS on 19 Sep. Julia felt so comfortable with her pilot that she fell asleep!
Photo - Andrew Evans

Mt Beauty Gliding Club is sponsored by the Mt Beauty Community Bank

Send your editorial or photographic contributions to the Alpine Flyer Editor - Andrew Evans at andrewe@g-mwater.com.au or Telephone 0418 377 146