



MBGC President Craig Collings thanks Roger Druce for his generous contribution to the MBGC hangar fund.

## ALPINE FLYER April/May 2009

**Mt Beauty Gliding Club, Inc**

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## MBGC Presidents' Report

With the approach of the autumn colours and the first snow on the mountain, the flying season slows and preparations are made for the winter tasks.

I'm happy to say that it has been an active and incident free summer. The Mt Beauty Gliding Club has raised its profile with Andy Smith and myself attending several competitions and Mark Bland and Richard Todd taking possession of the NSW Gliding Association "Come And Get It" trophy for the first time since 1977.

As the hangar nears completion it is time again to say thank you to all that have contributed either their time, money or support in this project. With today's time-poor society it still amazes me what can be achieved by volunteers. Some members (and even non members) have put in an extra-ordinary amount of effort, and we are in the process of acknowledging these Club members. I would also like to acknowledge a very generous financial donation by Social Member, Harold Elliot. Harold lives in Melbourne and visits Mt Beauty regularly and recently took a flight in the ASK-21 with Ian Cohn.

At this point it is also worth acknowledging the effort and time our members make to all aspects of our club, from operations, to maintenance, to administration, to support and logistics; it is your help and generosity that enable us to function at all.

A discussion on operations and safety occurred at the recent MBGC committee meeting. Of interest is updated safety material from the British Gliding Association on safe winch launching. As the Mount Beauty Gliding Club is almost solely winch launched and many of our members, myself included, are new to gliding we thought it appropriate to hold a "safe winch launching information" evening during the winter and perhaps also during the spring. You will be notified via e-mail when this evening has been arranged.

We welcome new members Rachel Fallon, Pete Summersby, Steve Bradbury and Gerry Blefari, and congratulate Steve on his going solo about a month ago and recent conversion to the Pilatus.

My glider is away for the winter and between the club tasks of forms 2 and other maintenance I'll be hitting the ski slopes.

Hope to see you there.

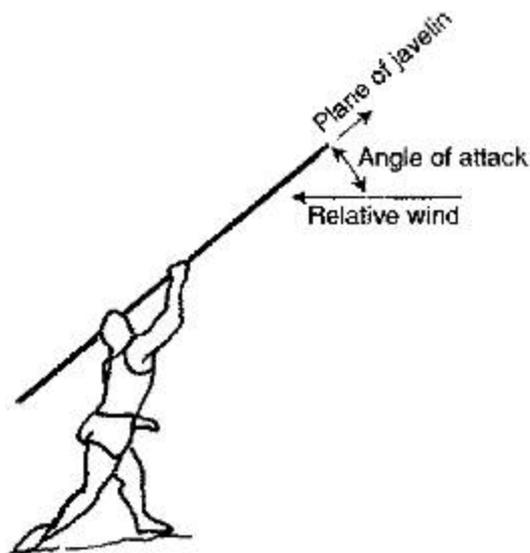
**Craig Collings**  
**MBGC President**

## Operations – Mark Bland CFI

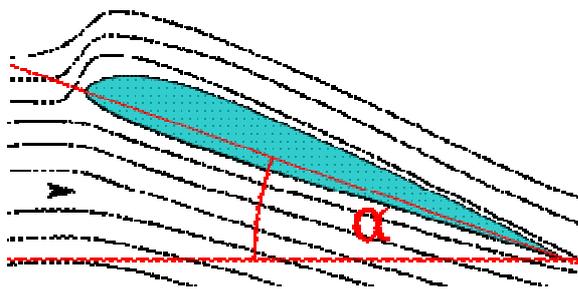
One of the most important concepts to understand in flying gliders is angle of attack. Factors such as glide ratio, lift and drag all depend on the glider's angle of attack.

According to the [Wordnet.com](http://Wordnet.com) site, angle of attack is defined in the following way:

*“The angle between the primary axis (usually the longitudinal axis) of a body moving through a fluid and the direction of fluid flow. The angle of attack affects both lift and drag. No angle of attack combines maximum lift and minimum drag. A zero angle produces minimum drag, but zero lift. Lift is increased as the angle of attack increases until a critical angle is reached when drag exceeds lift and the object stalls (see [stall angle](#)). See also [lift:drag ratio](#).”*



Angle of attack



*“In this diagram, the black lines represent the flow of a fluid around a two-dimensional [airfoil](#) shape. The angle  $\alpha$  is the angle of attack.”*

[Wikipedia](#) offers another definition which can be just as confusing to the early gliding student:

*“Angle of attack (AOA,  $\alpha$ , [Greek letter alpha](#)) is a term used in [fluid dynamics](#) to describe the*

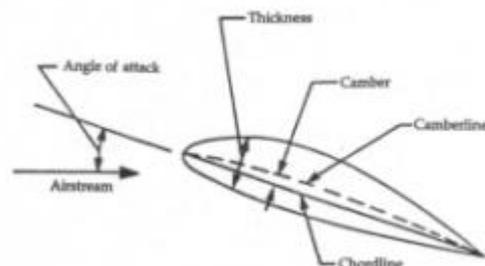
*angle between a reference line on a body (often the [chord line](#) of an [airfoil](#)) and the [vector](#) representing the relative motion between the body and the fluid through which it is moving. In general, the reference line could be any line on any arbitrarily shaped body in a flow. The angle of attack would be the angle between the line and the oncoming flow. This article focuses on the most common application, the angle of attack of a wing or airfoil moving through air. For a two-dimensional airfoil, angle of attack is the angle between the chord line and the direction of arrival of the incoming fluid.*

*“In aviation, angle of attack is used to describe the angle between the chord line of the (three dimensional) wing of a [fixed-wing aircraft](#) and the vector representing the relative motion between the aircraft and the atmosphere. Since a wing can have twist, a chord line of the whole wing may not be definable, so an alternate reference line is simply defined. Often, the chord line of the [root of the wing](#) is chosen as the reference line. Another alternative is to use a horizontal line on the fuselage as the reference line.”*

However, perhaps one of the most useful WWW explanations of angle of attack is Jeff Scott's discussion of angle of attack and pitch angle that is featured on the [Aerospaceweb.org](http://Aerospaceweb.org) website in which he suggests that many definitions of angle of attack confuse the student because they do not adequately differentiate between terms such as angle of attack, pitch angle and angle of incidence.

For example:

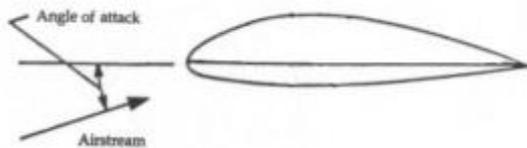
*“We are often asked questions about the meaning of angle of attack, and I think the biggest reason for confusion relates to how the concept is typically presented in books. Many of you have probably seen a picture like the following, illustrating an airfoil cross-section of a wing at some angle of attack.*



Typical airfoil at an angle of attack

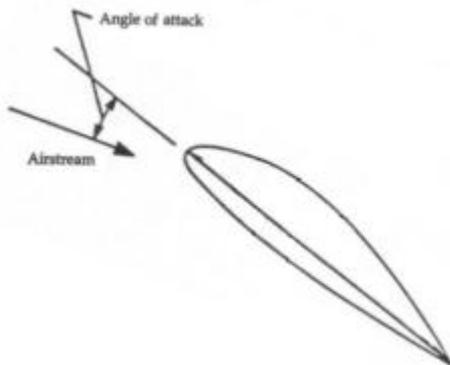
*“Note that the direction of the air stream is drawn as being level while the airfoil is tilted*

upward. Illustrations like these often lead people to believe that angle of attack is the attitude of the vehicle with respect to a level surface. However, it would be just as valid to draw the same image with the airfoil level and the direction of airflow inclined at some angle.



Typical airfoil at an angle of attack

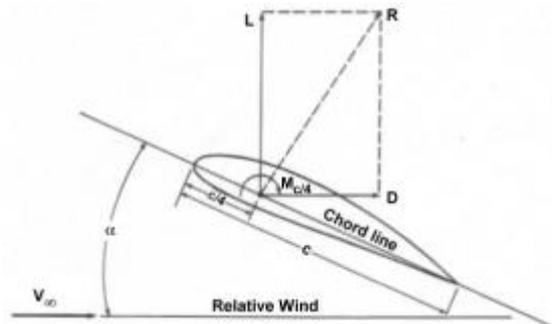
"In addition, the same situation could be presented with neither the airfoil nor the airflow level, but both at some arbitrary angle.



Typical airfoil at an angle of attack

"Nevertheless, the airfoil remains at the same angle of attack in each of the three cases shown above. Why? The explanation is that angle of attack is not measured from a level plane but is defined as the angle between the airfoil chord line and the relative wind. The relative wind is a term often used in aerodynamics describing the direction at which a vehicle in flight meets the oncoming air stream.

"A more technically correct term we can use in place of the relative wind is freestream velocity, often represented by the symbol  $V_{\infty}$  (pronounced "V infinity"). Freestream velocity is defined as the velocity of the airflow far ahead of the aircraft such that the air is not affected by the motion of the vehicle through it. Angle of attack, denoted by the Greek letter  $\alpha$  (pronounced "alpha"), is defined as the angle between the chord line of the aircraft's airfoil and the freestream velocity vector, as illustrated below.



Definition of angle of attack on an airfoil

Another useful WWW-based resource is the excerpt from [Stick and rudder](#) by Wolfgang Langewiesche in which he gives a detailed explanation of how a wing works.

### Pilatus

When the Pilatus is tied down after flying please ensure that the stick is tied back, the canopy cover is applied, the rudder chock is placed and the pitot and total energy probes are taped to prevent dust and insect attack. The parachute, PLB and battery should be left in the hangar with the battery on the charger or returned to Ian Cohn. Likewise remove the tapes on the pitot and total energy probes before flight and double check!!

### Cross Country Preparation - Mike Pobjoy

#### The Way Things Were

Perhaps I should call this piece "The way it should be" or "The way it will be".

Cross country flying, whether it was as a contestant in a competition or from your home club or as a visitor to another club or location (Long time glider pilots will remember taking their holidays to attend a club camp or visit another location to attempt a badge flight) required a certain amount of preparation.

- Approval from your CFI
  - Preparation of glider and pilot
  - SARWATCH plans, and
  - Retrieval plans in case you have to land out.
- a) and b) are self explanatory
- Involves nominating a person or system so that in the event that you "disappear" in the mountains we know where to start looking for your remains and who to report to.

d) This involves filling your vehicle with suitable fuel, leaving your keys in the ignition, putting the trailer on the vehicle, making sure that the lights work as there are at least 3 combinations of sockets and plugs and there always seems to be a mismatch especially when club trailers are used on members' vehicles. Finally, make sure that a mate is available as retrieve for you.

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### **Radios**

In order to improve communication between launch and winch, the Committee recently approved a changeover to use of VHF in place of UHF radios.

Ian Douglas has spoken to Beryl Hartley at Airborne Avionics and she quoted \$335 for the ICOM AC-15. This is a very good price, though she mentioned if we do a group purchase that she could probably do better.

The Speaker Microphone would be about \$110.

See [http://www.icom-australia.com/products/airband/airband\\_ic-a15.html](http://www.icom-australia.com/products/airband/airband_ic-a15.html) for the details on this radio.

We are inviting expressions of interest so that we can gauge how many we might want (Radios and Speaker/Mics) for the club and members. Ian believes this unit will do everything we want, but would welcome feedback from anyone.

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### **Members and Friends**

MBGC funds have been substantially boosted by the number of AEFs flown over the past few weeks. Easter was particularly busy.

Congratulations to Jackie Hollonds who finally took a flight in the Blanik with son Greg.



Greg waiting to launch with Jackie.

### **Andy's Sister Says Thank You**

We received a very warm email from Andy Smith's sister Jan which is reproduced below:

*Hello,*

*I am Andy Smith's sister - Jan.*

*I am writing to say thank you to all of you for making his time with you so enjoyable and memorable.*

*I am not aware whether you know that we do keep in close contact, even when he is in Australia. I love to keep abreast of what he is doing all the time. I am no 'flyer' myself, but I find it interesting keeping tabs on him.*

*Whilst he was with you I often viewed your website and kept up to date with all that was going on, especially through the Newsletters, which I found extremely interesting. I don't know how many other viewers you get for these newsletters from this far away. These I printed off and put into book form for Andy when he returned home as keepsakes. He was very pleased.*

*I mentioned to Andy that I was going to e-mail you and express my thanks to you all. He has asked me to send you all his good wishes (he is staying with me for the moment while he sorts himself out). No doubt he will see you in the not too distant future. I know he is looking forward to it.*

*Over the past couple of days he has been investigating the possibility of locating a winch for you. As luck would have it, I live very close to a Gliding Club here in Devon which has one for sale. Almost adjacent to this Gliding Club is a company called CAT which makes these winches and all sorts of military hardware as well. Very convenient. Andy was able to go in and have a chat with them as it was they who made the winch that is for sale.*

*I am sure he will be in touch soon and let you know what he found out.*

*I am hoping that, when Andy returns to Australia, I will be able to get out and visit him this time. It won't feel strange as I feel I already know all of you from reading the Newsletters.*

*All good wishes to you all, my sincere thanks for looking after Andy and I hope to meet you soon.*

*Jan*

### **Mark and Suzanne's Ballarat Adventure**

As many of you will know Mark Bland volunteered to drive Heather Mull to Tullamarine and then drive on to deliver Mart Bosman's glider to Ballarat for maintenance. Alas, the drive it was not without mishaps as Mark's email to Mart describes:

*How are you? Your glider is now at Ballarat with Joe. After we dropped Heather off at the airport we continued on our way to Ballarat but about 5km from Bacchus Marsh I could hear the trailer safety chains rattling on the road, so I pulled over and was surprised to find the tow bar had dropped down at an angle and the trailer dropped down quite low.*

*We proceeded very slowly into Bacchus Marsh Township and very fortunately we met a very nice man and his wife who offered to help us. Suzanne and I went to his house around the corner where he had some tools, but we found one of the mounting bolts on Heather's car's tow bar had come out at it had twisted down.*

*After we had some lunch he and his wife offered to tow the trailer with his car the rest of the way to Ballarat. He was a retired Ansett Airline engineer and was interested in planes so we had a good chat and I've offered him a flight at Mt Beauty. He was a very kind man.*

*I think the tow bar can be fixed but it will need a specialist.*

Cheers

Mark

### **Thank you Norm**

A special thanks to Mark's father-in-law Norm who came to help out with building the new hangar. His help is deeply appreciated.



Mark (at back) and his father-in-law Norm working on the hangar.

### **Editor's Epistle**

As many of you will know Michelle Baptiste and I attended the Women in Gliding Week held at Darling Downs Soaring Club (DDSC) in April. We both had a wonderful time and returned enthused and excited by our experiences there.

Upon my return I told everyone that this issue of Alpine Flyer would be a women-only issue which outraged some and bemused others. You will all have to wait for this because none of the photos I took were successful and I am chasing photos from other women who attended the week.

In the next issue of Alpine Flyer, I shall feature an extended report on our adventures and profiles on the other women pilots in MBGC. Our numbers are increasing with myself, Michele, Rachel Fallon and Heather Mull all vowing to give our male counterparts a run for their money.

MBGC history was made on Saturday, April 9 when Michelle and I made the first MBGC all-female launch in the IS28.

### **Susie Cohn's Brave Act**

Women play an important role in this club – supporting their partners, providing hospitality and, at times, taking great personal risks. After Easter the markers cones had to be placed back in their normal positions.

Susie Cohn, who loathes spiders, recently took her life in her hands to help with airfield care and maintenance as the pictures below show:



Susie inspects a cone and finds it full of redback spiders

In spite of the cone being full of spiders she bravely moves it for safer place airfield operations:



Susie gingerly carries the cone

### Contributions to Alpine Flyer

This is your Newsletter, so let's have your contributions. Send them to the Editor at <mailto:kvigo@albury.net.au> Photographs, stories of your gliding/aviation experiences, equipment reviews, and "how I learned about flying from that" stories are all welcome. If you can't use email, send contributions to the Editor at Box 390, Tawonga South, VIC, 3698.

### Treasurer's Talk

MBGC members should note that GFA fees have been increased. They are now:

#### Individual Membership

Normal Membership	\$159
Victorian State Fees	\$10
Soaring Australia Subscription	\$41
<b>Total</b>	<b>\$210</b>

#### Family Memberships

Family	\$159
Victorian State Fees	\$10
No Soaring Australia Subscription	
<b>Total</b>	<b>\$169</b>

**Airworthiness charges** also increased from May 1:

Aircraft Logbook	\$44
Certificate of Airworthiness - Renewal	\$41

Certificate of Registration - replacement (change of address excluded)	\$41
Change of Ownership	\$92
Change of Registration Mark	\$92
Form 2 kit	\$160
Initial Registration	\$390
Maintenance release Book - Replacement Copy	\$20

**Charges for badge claims have also been increased:**

#### Domestic Claims

ABC Certificates (All legs must be claimed separately at \$15 each)	\$45
Silver Badge	\$20
Gold Badge	\$20
Diamond Badge	
Goal	\$20
Distance	\$20
Height	\$20
Diamonds fitted to Gold or Silver badge (each)	\$15
600 to 1000 km flights (each)	\$20
Official Observer Application	\$20
Sporting Competition Licence	\$20
Renewal (two years)	\$40

#### Foreign Claims

Silver Badge	\$30
Gold Badge	\$30
Diamond - fitted to Gold or Silver badge (each)	\$30
Other	\$30
Per leg claimed	\$5
Foreign claim	\$40

#### Bank Account

We have recently upgraded our Bendigo Bank account to a Community account that gives us no bank transaction fees and a reasonable interest rate and will shortly be closing our old cheque account. So for direct deposit, our bank account with the Bendigo Bank through the Mt Beauty and District Community Bank is:

Bendigo Bank Mt Beauty -

BSB 633 108,

Account No 135890614

Please add your name to any deposit notification so that the Treasurer can give credit where credit is due.

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## MBGC Diary

**5th May 2009** - RH, and MBt worked on the hangar doors.

**4th May 2009** - IC, and KV crewed to fly the ASK21mi. Weather was light and variable winds tending north westerly with very weak thermals. One half octa cumulus clouds occurred mainly over the higher peaks. Total time 1h 20m from 2 flights.



Ilan Douglas and Susie Cohn – Ilan has been rolling the hangar floor surface

**3rd May 2009** - BH, IC, KV, BT, and SB crewed. Weather was light and variable winds tending north westerly with very weak thermals down low increasing to 2-3 kt closer to cloud base at around 6,500 ft. One octa cumulus clouds occurred mainly over the higher peaks. Total time 2h 05m from 11 flights.

**2nd May 2009** - BB, MP, RH, MBd, IC, KV, BT, and SB crewed. Weather was light and variable winds tending north westerly with very weak thermals down low increasing to 2-3 kt closer to cloud base at around 6,000 ft. One octa cumulus clouds occurred mainly over the higher peaks. Total time 3h 56m from 13 flights.

**1st May 2009** - MBd, KV, MBt and RH worked on the Form 2 for GVS.

**29th April 2009** - MBd, and RH worked on the Form 2 for GVS.

**28th April 2009** - MBd, IC, GM, RH, and MBt crewed. RH, and MBt worked on the hangar and UOW and MBd, GM and IC worked on the Form 2 for GVS.



Mark Bland and Gwyn Morris work on the ASK21 Form 2 Photo – Ian Cohn

**23rd April 2009** - MBd, IC, RH, MP, ID, ND, and MBt crewed. Hangar working bee continued on the floor, and removing scaffolding.

**22nd April 2009** - ID, and ND crewed. Hangar working bee continued on the floor, roofing nearly finalised. Visibility down to 1 Km in smoke.

**20th April 2009** - MBd, NP, RH, OB, and MBt crewed. Hangar working bee continued on the doors, door track support structure, and end gable cladding.

**19th April 2009** - MBd, NP, RH, HE, BT, ID, MBn, PS, and MBt crewed. Hangar working bee continued on the doors, door track support structure, floor consolidation and end gable cladding. Heavy smoke from burning off operations prevented flying.

**16th April 2009** - MBd, NP, RH, IC, MBt, ID, and BT crewed. Hangar working bee continued on the door track support structure. The ASK-21 and Pilatus flew locally. Moderate thermals were available to cloud base at 7,000 ft. Total time 2h 38m from 2 flights.

**9th April 2009** - MBd, RT, HS, MBn, GM, RH, SC, IC, PS, ID, and SB crewed. Hangar working bee continued on roofing. The ASK-21 and Blanik flew locally. Moderate thermals were available to cloud base at 7,000 ft. Total time 1h 48m from 6 flights.

**8th April 2009** - MBd, RT, MBn, RH, SC, and DJ crewed. Hangar working bee continued on side cladding. The ASK-21 flew locally. Moderate blue thermals were available to 7,000 ft. Total time 48m from 1 flight.

**7th April 2009** - MBd, RT, MBn, RH, SC, BT and DJ crewed. Hangar working bee continued on side cladding.

**31st March 2009** - MBd, MBn, OB, and MBt crewed. Hangar working bee continued on frame construction. The ASK-21 flew to

Corryong and the IS-28 flew locally. Moderate blue thermals were available to 6,500 ft. Total time 2h 30m from 2 flights.



Most of the hangar crew on 29th March.

**30th March 2009** - MBd, MBn, PH, OB, and MBt crewed. Hangar working bee continued on frame construction. The IS-28 flew locally. Moderate blue thermals were available to 6,500 ft. Total time 2h 30m from 2 flights.

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## The Tail End

### ***CORRYONG REPORT 2009***

***– Mark Bland***

For those who made the effort to go to Corryong for the "Man from Snowy River Festival" on the 3/5 April a great weekend was had.

Mark and Mike, towing the Blanik and mobile winch departed Wodonga on Friday morning in heavy rain but with high spirits. Arriving in Corryong late morning the weather cleared long enough for the Blanik to be rigged and test flown following its Form 2.

After two circuits the showers came back so we retired to town where we viewed the street parade of horsemen and vintage cars. The ASK21 was already tied down at the airfield after having been flown over from Mt Beauty earlier in the week by Mark and Olli Barthelmes.

That evening we were subjected to a huge storm that dropped about 40mm of rain in 20 minutes causing flash flooding. Concerned for the gliders that were tied down at the airfield we raced down there to check on them and got soaked in the process but all was OK thankfully!

The following morning we had clear skies and we were confident the rest of the weekend would be good. Richard Todd and Andrew

Evans arrived and after they'd had a couple of flights we started to get some enquiries for Air Experience Flights from the signs we'd put up at the showground. Rod Harris also arrived later in the afternoon in his DG-400. Over the two days we did about 20 AEF's as well as a few local soaring flights for ourselves.



Richard Todd is excited about being in Corryong.

Saturday night some went to the Rodeo and others listened to the poetry sessions at various venues around town.

The Blanik and winch were towed back to Wodonga late Sunday while Mark and Rod waited another night to fly the two self launchers back to Mt Beauty on Monday on what turned out to be another good soaring day with cloud base over 7500ft.

This was the third time we have made an effort to visit Corryong and proved to be another successful event. Weekends away can require extensive logistics to organize and relocate aircraft and equipment but at the end of the day it's a lot of fun and good for people to fly at different locations and also have more time to socialize. The more participation the better.

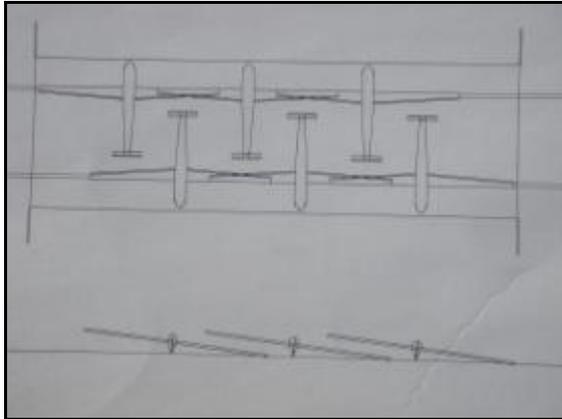
We're talking about a visit to the Bendigo gliding club. Who's interested?

### ***MBGC Hangar – Proposed Plan for Parking the Gliders – Rod Harris***

In order to make the best utilisation of the space in the new Club hangar the gliders will be moved in sideways, to accommodate up 3 2-seaters and 4 single seaters.

This will be achieved by pushing the glider onto a trolley which runs on a rail throughout the hangar, and extends 20m out each end. The gliders will alternate, head to tail, with all the 2 - seaters facing towards the airstrip (West) and the single seaters facing East, on a separate rail.

All gliders will have their northern-most wing up, and southern-most wing down. The layout is such that the innermost glider can be recovered without unloading the outermost gliders - just moving them outside along the rail.



Rod's plan for glider storage

The trolleys have been built with an integrated ramp so the gliders can be loaded/unloaded in any position of the trolley, and have been designed to be as low as possible.



One of the trolleys built by Rod and Peter Mack.

The wheels are high load bearing for longevity and minimum rolling resistance. The design has been determined after considering glider hangars at Baccus Marsh, Corowa, Lake Keepit, Bathurst, Darling Downs and input from Phil Glasson and others.

The trolleys were built by Rod Harris and Peter Mack.

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## Picture Round Up



Michelle and Kitty working on the ASK-21mi Form 2 Inspection. Photo – Ian Cohn



Mark Bland, Max Thomson and Rod Harris working on the hangar.



Gliders lined up at the Horsham Gliding Competition.

Picture – Craig Collings