



# “THE FLYER”

YARRA VALLEY AEROMODELLERS NEWSLETTER  
October 2013

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**The Committee:**

**President –**

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David Anderson's Percival Mew Gull on landing approach in a strong cross wind at the Vic Scale Scale day last month (Mistakenly referred to as a Miles Sparrow Hawk in last months Issue).

Just to rub it in for your repentant Editor, David has penned an article describing this Aircraft and this is featured later in this month's issue.

## Next Meeting

Our next General club meeting will be on the  
**Monday 28<sup>th</sup>** of October at the Red Earth Centre in  
**Mooroolbark.**

Newsletter now on our website at:- [www.yarravalleyaeromodellers.com.au](http://www.yarravalleyaeromodellers.com.au)

## WANTED

Any OS Brand Engines in good order or New.  
Call Adrian Whiter 9739 6686 or 0419 535 460

Any "40" Size Profile Plane in flying condition or needing light repairs.  
Call Daniel Wheeler 03 5964 7139 or 0430 596861

Please send all For Sale and Wanted adds to me at [hrcoleman66@gmail.com](mailto:hrcoleman66@gmail.com)

## WHAT'S ON AT THE YVA

December 1 <sup>th</sup>	- Club Day
December 7 <sup>th</sup>	- VIC Scale Rally (Xmas Function)

(The Field will be closed to general flying on these dates)

The YVA Committee would like to acknowledge the generous and ongoing support of

## Andrews Scale Models

20 Hewish Road  
Croydon VIC 3136  
Tel: 03 9723 1003

Email: [enquiries@andrewsscalemodels.com.au](mailto:enquiries@andrewsscalemodels.com.au)

Scale Model Kits, ARFs, RC Radio Equipment. Spares, Balsa and Building Supplies.  
If he hasn't got it, he will make every effort to get it in.

**<http://yarravalleyaeromodellers.com.au/>**

**The New YVA website is up and running and updating on a regular basis. Members are required to register on the website in order to get regular updates and alerts by email.**

**News Letter availability will henceforth be via the website only. News Letters will not be individually emailed to members!**

# (Vice) Presidents Report



Our able president is incognito at the moment. Now some of us know that this is not his favourite position, but he is stuck with it and we are unable to change his stance. He and Hugh have asked me to step up to the plate and write something in his absence, which as Vice President I am more than happy to do.

I will try to fill you in on what is happening within the club and in what direction we are heading, but those of you who attend the monthly meetings will have a fair idea.

First of all I would like to mention the great work the mowing team have done, and are still doing to make the strip and surrounds look as good as good as they are. This operation does not happen

without the occasional hiccup, which does happen now and again, and we have had to be deal with them the best way we can.

We would like to welcome new mowing team member Bill Cootes, who has kindly offered his services to the club, and also thank Keiron Hampson for his efforts in the past. Roger Eggleton heads up the team and has done a great job for many years. He will doubtless welcome Bill, and do his magic in making him part of a valuable team.

As most of you know we will be fielding a team in the 2014 VMAA trophy. This is an interclub competition held every year at the state field. Although first prize is the prestige of having your club name engraved on the trophy it is intended to be a fun weekend. The team captain this year is David Nichols [ hang on I think that's me ]. We have a skeleton team put together at the moment and would like some reserves. We are also going to need pit crews to back up the effort, so if you are able and willing to do this you will also be a very important and indispensable part of the team. Please give it some consideration so that we can enhance the warm team spirit we have in this club, and take action as well if you like! I will be contacting our flyers and we will be doing some preparation practice fairly soon. I will do some more work on this project shortly, so I look forward to input from you all.

You may have noticed that we now host competitions and fun flies for two special interest flying groups. These are the Scale Association and the Victorian Pattern Association, both of whom use our field for some of their events. The feedback from both groups is always positive even though our usual 90 degree crosswind tends to make things a little more "interesting" for them.

It is a very good thing to have these groups use the field in this way and we have not had any negative feedback in this regard.

The club is moving forward in a pleasing manor and I notice we now have eight juniors in our club. Next year I will be organising a competition for our juniors at our club, and one for the state of Victoria at the State Field. The state has just over ninety juniors, so we have a healthy percentage in relative terms, and this will be one way we can encourage the young.

Remember

Plan the fly,  
Fly the plan.

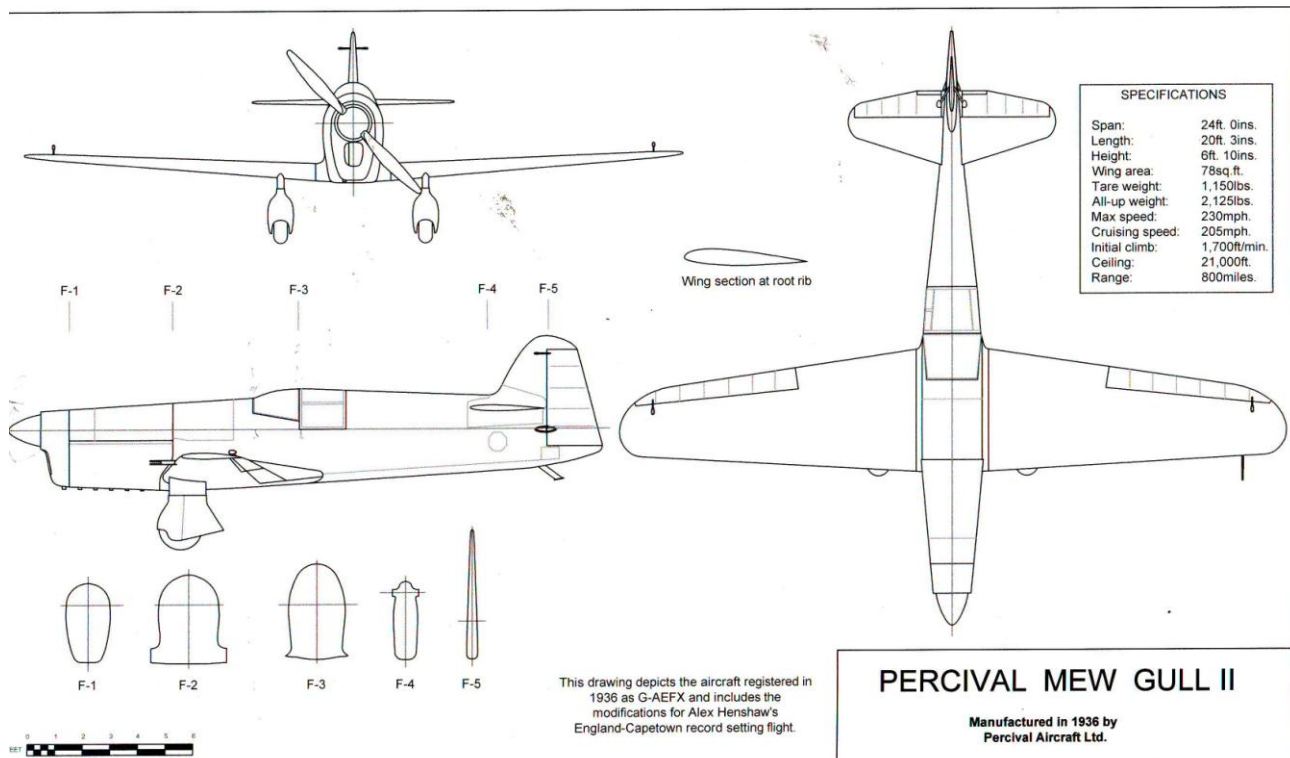
DAVID NICHOLS,  
YVA Vice President.



# MEW GULL (NOT SPARROW HAWK)! – David Anderson

An added interest for Scale Modellers is researching into your subjects Aircraft History.

The Mew Gull first came to my attention, when during a hospital “break”, a work colleague loaned me a copy of “Flight of the Mew Gull”. This aircraft fired my aero modelling imagination, so when the Seagull ARF Manufacturer came out with a 1/4 scale Mew Gull, I was already on my way to Addies Hobbies to take delivery of the Kit!!!! I had already started building a 1/3rd scale Gull, which is still on the building board.



Back to the full size Mew Gull... This was designed and built by Edgar Percival, who was born in Albury, New South Wales, in 1897. As a boy he built and flew model aeroplanes and joined the Royal Flying Corp. in WW1.

He flew in Billy Bishop's Squadron and also served in the Middle East and Greece before returning to Australia as a Charter Pilot and Barnstormer.



He became interested in design and construction and returned to England in 1929 where he became a successful Test Pilot, specialising in Amphibians and Schneider Trophy Races. He then formed the Percival Aircraft Company with E.W.B. Blake and produced the Percival Gull, a 3 seat touring and racing plane. This series of Gulls were the monoplane of choice of many 1930 Racing and Touring Pilots, including Charles Kingsford Smith, Amy Johnson and Jean Butten.

Edgar then designed the single seat Mew Gull for faster

speeds, specifically for the Kings Cup Air Race, which was the Blue Ribbon of flying in the British Isles, between the two World Wars. This is where Alex Henshaw came into the picture and purchased the 4th Mew Gull (only 6 were ever built) and he was successful in winning the Kings Cup, in 1938 which remains the fastest of any winning aircraft. This was closely followed by an amazing solo flight to Cape Town, South Africa and back to London, in February 1939, breaking all the records. This solo flight record stood until 5 years ago.

The Mew Gull in Model design is still a winner. Look at the results of the Adelaide Air Races, earlier this year, where our own Mike Lynch was very successful.

Photos attached show the head on view of the Restored Mew Gull, note minimal frontal area and the evocative shot of Taff Smith flying over the Yorkshire countryside. The three view drawing shows the Mew Gull in modified form for the record setting flight to Cape Town and back.



## Editors/Secretaries Note:

Thanks to David Hipperson for again providing some reading informative and entertaining words for this months Issue. Thanks too to David Anderson for his write up on the Percival Mew Gull... And apologies to David for referring to it as a Sparrow Hawk in last months issue... Completely different bird now that I look at them again...

Now, some of you have expressed difficulty with accessing the News Letter on our Website. And it took me a while to work out why... And all the time I was trying to work it out, It was staring me in the face.

If you have Adobe Acrobat installed on your PC and use that for reading PDF files then reading the file on line will NOT work. It will only work if you also (or only) have Adobe Reader installed.

So to confirm, If you are having trouble reading the news letter on line, it's because you do NOT have Adobe Reader installed on your PC.

Adobe Reader can be downloaded for free using the following link.

<http://get.adobe.com/reader/>

Alternatively, you can simply download the PDF version of the News letter from the website using the instructions in last Months Issue (Right Click on the file link and select "Save Target As" or "Save File As")... Adobe Acrobat or other readers will all work in accessing your hard drive.

Until next month, Happy Flying.

Hugh Coleman

## Reichard Mefisto

David Hipperson describes his latest Warmliner

A while back I was stupid enough to comprehensively stuff my Reichard Sprinter warm liner. Some of you may remember as you helped me dig the motor and nose out of about six inches of soil. I really wanted another but commonsense took over as a replacement would have set me back over \$400 for what was something of a whim.

However, a few weeks ago I was looking on RC Trader when I saw an ad' for a new in box Sprinter at a bargain price. When I spoke to the owner I found that he had a raft of Reichard kits that had been purchased by his father. After a short conversation I chose to change my mind and purchase the Mefisto which is more of a high performance sailplane than a warm liner. Within 48 hours the kit was in my hot little hand and the brain started ticking over as like many Czech kits these may be ARF but do not go together in five minutes or without work.

The build, and it really is something of a build, went together fairly easily but remember I've done a few of these and the manuals are somewhat brief in nature. The first job was to measure the nose carefully before cutting this off and installing a home made composite motor mount/bulkhead. This must be installed carefully as the builder has to line up the thrust line at his own discretion and this is important.

Once this was done I fitted the wing mounting formers followed by designing a ply battery table and fitting this through the fuselage. Most of the rest is fairly conventional stuff but it was apparent that the elevator and rudder snakes could flex without fixing. I did this but cutting a hard tapered foam plug which was inserted down the rear end of the fuselage. Two holes in this allowed the snakes to run through where they were epoxied into place before being stiffened by threading them through alloy tubes.

The initial power set up used an MVVS 3.5/1200 motor fitted with a Hifei 80amp switch mode ESC to which was added an Airstrike 65C 3S 2200 Lipo. The motor has currently been changed to a Turnigy 1120 which dependant on prop should give me about 700 watts which is more than I really need.

Even with the maiden flight it went up like a scalded cat and needed no trim to fly really well. It is fast and uses a lot of the sky as well as testing my eyes to just about the limit. Don't know how these F5b guys do it!

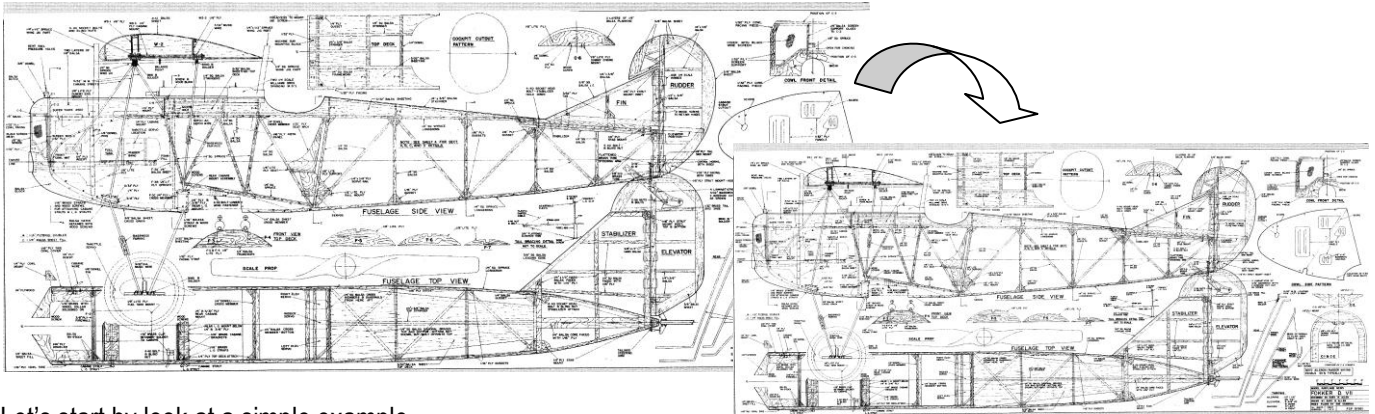
David Hipperson



# Scaling Plans and 3 Views

One of the frequently asked questions that I see on the "Scale" threads on various modeling websites, RCGroups.com, RCUniverse.com etc. etc is how to scale plans up or down, or how you scale 3 views up or down in order to build a model of a particular scale or size.

And it always puzzled me that people find it as confusing as they do. Don't get me wrong, I don't expect everybody to be able to do the sums in their head, but at the same time, it's not higher mathematics.



Let's start by look at a simple example.

You have a plan that is for a 1/6<sup>th</sup> scale model of the full sized Arcadia Metforce (Never heard of one? Never mind). The full scale aircraft is 36 foot in span, so the model will be 6 foot span, or 72 inches ( $36 / 6 = 6$ ).

But you drive a small car and a 72 Inch Span wing won't fit in the car.

So you think to your self, "Self, I think 1/8 Scale might be a better bet!"

So take your plan to the local print shop and say to the guy (or girl) behind the desk, Can I have this scaled down to 1/8<sup>th</sup> please...

"No probs" they say, it'll be half an hour. So you walk round the corner to the hobby shop to grab a few sheets of balsa 'cos you know you are running short of 2mm Sheet.

An hour later you go back to the Print shop and they hand you a rolled up plan and take your money.

You take the plan home and go straight to the shed, where you unroll you plan to find – WOOPS... you have a dinky little plan for a 9" model of an Arcadia Metforce.

The guy at the print shop has misunderstood you and thought you wanted your plan downsized to 1/8<sup>th</sup> of its original size.

And you know what? You can't blame him. He didn't know that your original plan was 1/6<sup>th</sup> scale.

What you really should have asked them to do is to print you a copy at a particular percentage of the original.

For example – if you ask for a 50% reduction, you will get a plan that is 1/12 scale.

So how do you get from 1/6<sup>th</sup> to 1/8<sup>th</sup> as a percentage? Easy... You divide the scale you want by the scale you have.

$1/8$  divided by  $1/6$  equals  $6/8$  or which is  $3/4$  or 0.75...

Multiply this by 100 and you get 75%

So, if you want to reduce a 1/6 scale plan to 1/8 scale, you need to ask the guy (or girl) at the print shop for a 75% reduced copy of your original.

For our next example, let's look at getting a 3 view blown up to a decent scale.

Many of the three views available these days are drawn to 1/72 scale or 1/48 scale but I have seen them published in 1/40 and 1/50 (both these latter scales make no sense to me, but they are still usable).

For instance, you have a nicely detailed 3 view of a Fokker DVIII And you want it scaled up to 1/6<sup>th</sup> scale. You know that it's in 1/48 because it says so on the 3 view, but you lay a ruler across it to make sure.

How do you get to 1/6 scale? Simple.

Again, you divide scale you want, but the scale you have.

$1/6$  divided by  $1/48$  equals  $48/6$  which equals 8.

Multiply by 100 and you have 800%.

So you simply ask the "Attendant" at the print shop to enlarge your original by 800%.

Next month, I will look at how we get to use those odd sized bits and bobs we have lying around in the shed and I'll explain why the figure I quoted the girl at my local Office Works last time I was there was 137%!

Until then, cheers! Hugh.



# The Seagull Decathlon and other things

(Photos Frank Curzon and Ed)

During show and tell at the September meeting I introduced my .46 sized Seagull Decathlon. This is quite an old design for an ARF so I wasn't showing off the model as such rather than my approach to electric conversion of this sort of model. I hope I am not just describing the mechanics, perhaps, but more the how, why and approach so forgive me if I ramble a bit.

Most current electric beginners start with some sort of foamy along with power of the 3S Lipo variety. In honesty I'd recommend this to anyone having a go as it is totally practical. It is likely, however, that once this initial phase is coped with the urge may come for bigger, more powerful models and to some extent these tend to come as two phases. The first is the jump from 3S (nominal 11.1V) to 4, 5 or 6S where the 6S gives a nominal 22.2V.

Although there are users above 6S the move then rarely seems to be the interim jumps but straight to 10S or 12S where 12S gives a nominal 44.4V. In part this maybe because these voltages are the practical level for competition aerobatic models. Personally I have nothing against going to these sizes but would remind the flier that to do so requires genuine commitment as one is going to be investing considerably more money and effort.

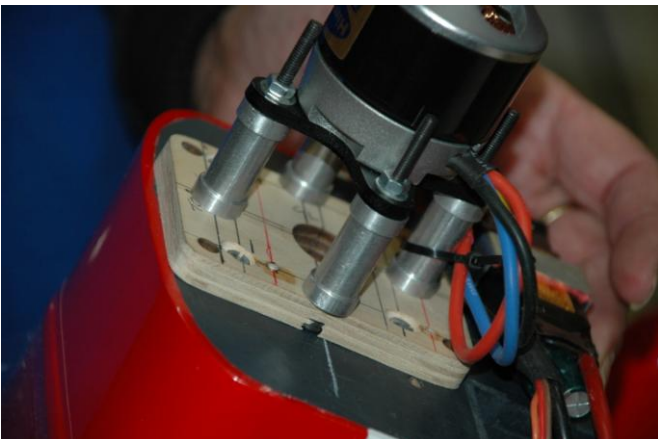
During the time I wrote for RCMNews magazine motors, ESCs and Lipos took huge leaps forward in terms of technology. If, for the sake of this article, we take fully charged 6S pack it is usually accepted as 22.2V but in fact the actual voltage is 25.2V and modern Lipo technology allows the pack remain closer to that voltage longer during the flight than it did just a few years ago. Staying with that example a 25V pack drawing 50 amps gives us an input of 1250 watts. This suggests plenty of power for a 10 – 12 pound (roughly 5 – 6kg) model or roughly equivalent to a good .90 – 1.20 IC engine. For those who find themselves lost in Volts, Amps and Watts a 750 watt motor is approximately similar to a .60 size four stroke.

Typically, I found that a 5S pack easily flew my 63" span Seagull Sparrow Hawk which had a flying weight of 8.5 pounds or close to 4kg. Correctly propped this model, being very clean, rarely drew much than 15 amps in flight other than during aerobatics. During conversions I've found that 4S pack will fly a 5 -6 pound (2 – 3kg) model, a 5S pack will handle 6 – 9 pound (3 – 4kg) while 6S can cope up to 12 pound models (5.5kg). What still stress however is that much of this is dependant on the type of model, the overall weight and the wing loading. I guess what I'm saying is that for many fliers at our field A great many frequently fly IC models that are not very much different in size to those mentioned.

What I'll stress again is that although I firmly believe you should be careful with ANY electric set up the more power they possess the closer that attention should be. Just remember that if you went to Bunnings and bought a 1.0kw circular saw you would be unlikely to handle it without care yet a similarly powered model is not much different so think about the safety of your fingers!

Another thing of which I'm only too aware is that some of our fellow fliers always want to buy the very cheapest electric gear they can find. Regrettably, with three items in particular this can be a really false economy and even more so with increasingly powerful set ups. Cheap chargers, ESCs and Lipos possibly cause more problems than you can imagine. Not only do they waste money at best but at worst might cause a crash, an accident even worse possibly burn down either your car or house so be aware.

Some imagine that you can't get much vibration with electric and if not under load that is quite possible but as we up the power it is obvious that props and spinners can give precisely the same hassles that they do with IC. In the case of the Decathlon I took this in to account and as I intended to reverse the motor (I regard mounting off the spider as reversing) some beefy mounting was used. This should appear on one of Hugh's photos where you may see that I made up some robust tubular stand-offs. These were turned from alloy tube purchased from the local hardware store while the ends were re-turned to adapt from some Seagull items.



Continued Over...

...Continued from Previous...

In order not to disturb the mounting too much I usually interpose a 6mm or 10mm ply plate and then counter-bored holes to screw into the existing IC engine mount blind screw nuts. On the reverse side the plate is counter bored again to allow for the fitting of my motor stand-offs. These should be of a suitable length that the rear face of the motor adapter clears the front face of the cowl. Yes, some time and effort is put into measuring the individual items but the work is not onerous and does produce some satisfaction when it all comes together.

Any kit whether ARF or built variety can be converted from IC to electric if desired. From my perspective however I believe that in practical terms 4 - 5kg models are the maximum I wish to handle as they are generally a useful flying size when mated with up to 6S Lipos. If you do have the urge to do this yourself I'm always happy to offer any help I can.

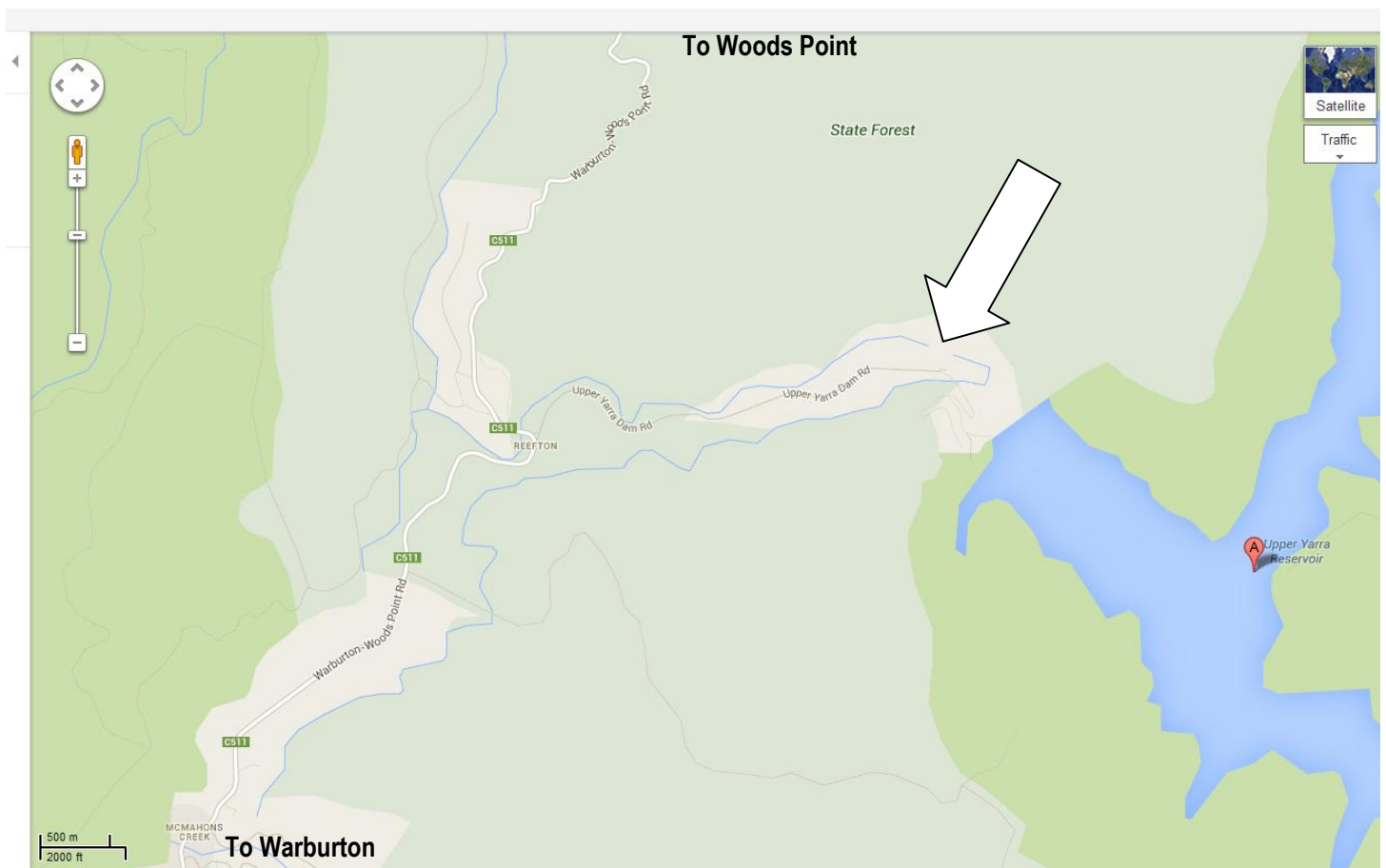
Just to round things out and so that you know not everything is always perfect the Decathlon is no more. No electric problems but pure pilot error where in dull weather I allowed it to get too far away and too low and simply lost orientation. So, if anyone wants an undamaged wing and tail plus an only slightly cracked cowl the bits are available cheap!



## 2013 YVA Christmas Function

**21<sup>st</sup> December 2013**

This year, the Yarra Valley Aeromodellers Christmas function will be held in the form of a family Picnic at the Upper Yarra Reservoir off the Warburton - Woods Point road just the other side of Warburton.



**Everything is BYO... Food, Drinks, Picnic Chairs blankets etc. BUT... There will be some Great Raffle Prizes on Offer.**



## YVA General Meeting Minutes

Date: 30-09-13  
Time: [8:00PM]  
Location: Red Earth Center. Mooroolbark

Attendees as per the registration book ()

### Agenda

1. **Welcome** to June Meeting

**Apologies**

Karl Warhenburger

2. **Previous Minutes acceptance.**

Accepted - Bill Wheeler, David Nichols

3. **Correspondence in/out**

Letter from VMAA – Notice of VMAA AGM.

4. **Treasures report**

Club Cheque Account - \$9,227.84

Money Extra - \$4,037.04

Accepted - David Anderson, Arthur Green.

5. **General Business**

- Christmas party – Upper Yarra Reservoir – Plan to have a picnic lunch (All BYO). Raffle prizes galore.
- Mowing team. Volunteers sought. Darryl might do it and so might Bill Coombs.
- Website – Members discussed the use of the website and any difficulties regarding.
- Pressure washer has been put back in the shed.
- Gate Locking – The system has been changed so that both locks are completely independent.
- How shall we spend some of our ill gotten goods?
- VMAA Trophy – David Ran Through the Entrants for the various events.

6. **Show and Tell**

David Hipperson - Mephisto Warm Liner. Purchased second hand (new in Box). 3S 80 Amps, about 700 Watts.  
Seagull Decathlon – Electric on 5 S.

David has made a number of alterations to the ARF Out of the Box in order to make the Electric Conversion more user friendly.

Adrian Whiter – Extra 300. Won at last years Monty Tyrell. Adrian has fitted an MT 57cc petrol Engine.

## Parting Shot

**Seen at last weeks Ride Around the Bay – Greg and Steve... in Lycra! Thanks Daniel Wheeler for the Photo.**

