

# Auckland Soar

Radio Control Soaring Club

**Issue Number 164**

**September - October 2011**



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**[www.aucklandsoar.org.nz](http://www.aucklandsoar.org.nz)**

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## Editor's Notes

**On the Cover** : Colin Rothery's electric SE-5A overhead at Ambury recently.

Hi everyone,

*Surprised at the amount of copy I've received this time around. Bearing in mind it's usually a 'quiet' time of year for club activities, with us being off Ambury.*

*Thanks again to Andrew Reid, Dave Crook and Peter Parata for copy or photos for this issue.*

*We are back on Ambury again now!*

*According to one of the rangers, the lambs took a bit longer than they thought to 'hatch' this year.*

*Having said that, it's only been just over a month and a bit... which is way shorter than it has been in past years! Well it certainly seem like it!*

*As a result of some discussion at the last Club Annual General Meeting; your committee have been looking at purchasing some artificial grass or matting to act as a temporary landing strip at Ambury. This seems to have come about with increase in small and not so small electrics not coping with the tall grass that has been, up until recently, found on the field.*

*Under the terms of our Consent, anything we put out on the field has to go off it before we leave, thus a permanent landing area is not possible.*

*To this end there is a web page poll on the matter, so the committee can get some feedback on whether to take this matter any further. Just remember have your say!*

*(See page 6 for details and information on the we poll.)*

*Congratulations to our F3K (DHLG) World Championships team. The won not only the teams contest but also the individual as well! (See page 8 for more details.)*

*NZ Soaring is certainly top of the heap at present with both F3J Teams Gold and now F3K Team and Individual Gold too!*

*Another reminder that everyone will need to have a Wings Badge by early next year.*

*Your committee are making arrangements for a suitable testing day or days to accomplish this.*

*When we have some days/dates set, I'll throw them on to the website for everyone to note down.*

*Well that's about all for this issue.*

*Only another twenty odd days or so and we are on daylight saving!*

Brett






# Coming Events

**AS** - AucklandSoar championship points

## September 2011

4th	Fly for Fun		Ambury
11th	Thermal A		Ambury
18th	Thermal I (HLG)		Ambury
25th	Electric Fun Fly		Ambury

## October 2011

2nd	Fly for Fun		Ambury
9th	Slope Event		T.B.A.
16th	Electric Event		Ambury
23rd	Thermal I (HLG)		Ambury
30th	Thermal A		Ambury

# Prez Sez - Dave Crook



By the sounds of it it's nice to be back on Ambury by all accounts.

I understand that only Brett, Laurie, Tony and Colin were around to welcome in the "after lambing season" and what a beautiful day it was too.

While they are cute and cuddly we must not forget the big picture of why we cannot fly at Ambury for some six weeks. They taste nice.

In the off season as it were, the committee looked into purchasing some artificial grass for use as a possible runway for those with wheels. (see page 6)

There are positives and negatives on this issue. While it would be great to do normal take off's and the strip could readily be moved at a moment's notice into the wind, there was the question of who or whom is going to get it out of the gear shed and put it away at the end of the day.

By all accounts getting the peg board out of the shed appears to be a chore these days for some. Have your say and let us know what you think. If you're all in favour, that's' great, but don't always be the first one out the gate to go home.

**There is an On-line Poll on this subject on the [AucklandSoar Homepage](#) - simply select: Yes, No or Don't Care and click the Vote button to let us have your view.**

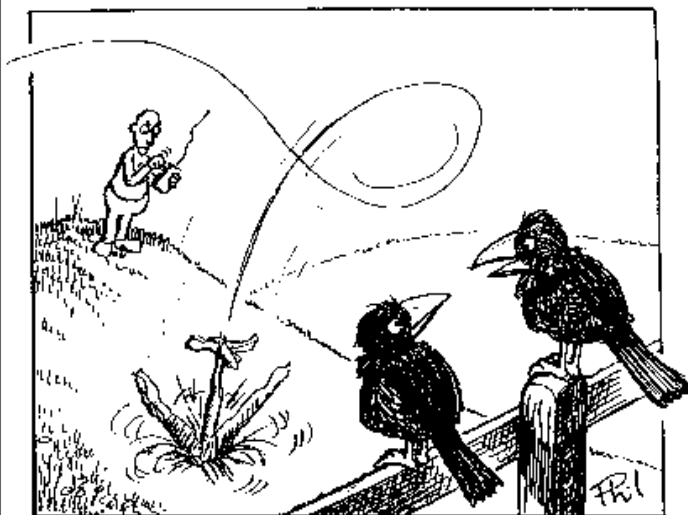
Also over the last month a few of the boys visited John and Sharon Danks at Airsail down in sunny Mercer. If you haven't been south for a visit yet, do so. It's well worth the trip. (see page 13)

The other item on the agenda as reported in the last Flyer's World is the requirement for all club members to now attain wings badges. This is not only so you can fly at other clubs rallies and fly-ins of course, but to also satisfy NZMAA insurance requirements even if something happens on our flying field.

So dust off the cobwebs, get out to Ambury and get practicing. See you there.

Dave

## And some.... Aeromodelling Humour



If they really are diving for worms  
tell me how they know where they are!

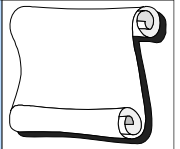
Scene: Frankfurt Airport, 1960.

Air Traffic Control to BEA Viscount captain who appears to be uncertain where to taxi after landing: "Have you not been here before?"

Captain: "Yes, in 1943, but I didn't stop!"



# Club Notices



## FLYING AT AMBURY

As we don't want to get on the wrong side of the Rangers.... remember:  
If we do get that perfect day and you feel the need to have a fly; you get to Ambury and there are no people flying or sheep on our usual field **Do NOT** just wander in and fly.  
Please, take the time to find one of the Rangers and seek their permission to fly on the field.

Also do **Not** just drive onto the field without seeking permission to do so first.  
(The park staff can get a bit annoyed if you just drive on in - as the field can be quite soft underfoot - especially over the winter months - and cars do cut it up a fair bit.  
We have a good relationship with the Park Rangers - let's not ruin it.

**Also Note - Ambury is now a non-smoking park!**

## Field Safety

Just remember to get another person to check that model over Before you fly, even if you have flown it last week.

Also, don't just walk a couple of paces into the field or away from the cars and just throw the model off.  
Most Sunday's there are quite large numbers of people in the park including children - so you need to ensure if anything were to go wrong that you are a sufficient distance away from them for safety.  
Our tenure of the site depends on our good safety record - lets not put it at risk!

To quote from an old TV program .... "Let's be careful out there!"

## Pegboard and Spots

Yes, we know most people have now converted to 2.4 GHz gear, but there are still a few around that haven't.  
So if you are still using 27, 35 or 40 MHz gear - why not just get the pegboard out before you fly, just in case!

If you are First to arrive at the field - why not also just wander over to the shed and get the pegboard out.

There have been several occasions lately when several members have been flying and no pegboard was in use!

Please make an effort - for safety sake, if nothing else!

Same deal at the end of the day - how about putting the pegboard / landing spots or other equipment used during the day Back in the shed.

**Let's all help with this and not just leave it to the same people all the time!**



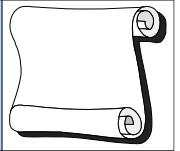
## Soarfest Trophy Upgraded

It had come to the committee's attention that the Soarfest Trophy was in need of having more plaques added, as the original ones were now 'full'.

Incoming Prez, Dave Crook, has now completed getting the upgrade done and the results are below:



# Club Notices



## Proposed new Ambury portable landing strip - Have Your say.

If you remember at the AGM it was suggested the incoming committee look into the possibility of getting some form of airstrip to put down at Ambury.

Recently, Dave and me and Brett came across rolls of artificial grass at Bunnings Warehouse.

The rolls were 2m wide and 20m long.

The backing was reasonably heavy and unlike weed matting, would not blow away in a wind.

We believe it would be suitable for all types of aircraft where their environment is better suited to normal take offs as opposed to being hand launched.

And the artificial grass would accommodate various wheel sizes.

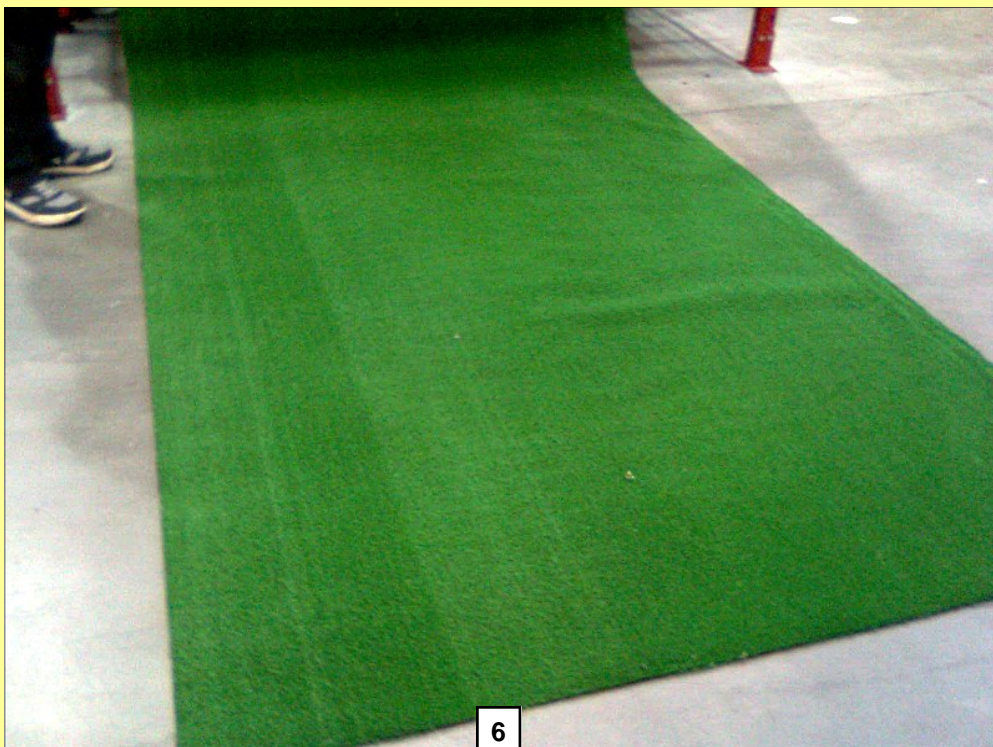
The price is \$ 22 per lineal metre and I think it's worth the club getting a full 20m.

We could lay it out as either one 20m strip or a 10m strip at 4m wide.

Weight is not a problem and can be stored in the shed.

There is an **On-line Poll** on this subject on the [AucklandSoar Homepage](#) - simply select: Yes, No or Don't Care and click the **Vote** button to let us have your view.

Or.. just contact any member of the committee with any other thoughts you may have on the subject.



## Clubs Update August 2011.

Quite a lot to report from the AGM, SIGS Combined Meeting and Council Meeting held over the weekend of 23/24 July. MFNZ Patron Air Marshall (Rtd) Carey Adamson attended the AGM and addressed the meeting, recalling his aeromodelling days and long service with the RNZAF, it was a privilege to have our patron participating in the meeting and the first time this has happened.

Rex Kenny, CAA, Manager Sports and Recreation, was guest speaker and spoke of the good relationship between CAA and MFNZ, and the high level of compliance by our organisation and its members. He mentioned the need to ensure all overseas model fliers flying in NZ are MFNZ members (see below). Rex spoke of the increase use of UAV, though they fall outside model flying operations. There were lively discussions over the two days of meetings and here are the matters that are of particular relevance for Clubs.

### Temporary Overseas membership

Some requirements of CAA are available only to members of MFNZ (i.e. large Models), and overseas fliers participating in MFNZ events are subject to CAA 101. In order to regularise the situation the new temporary membership category has been established.

Temporary membership category is for overseas model fliers coming to NZ on a temporary basis to fly at MFNZ sites. The visitor should provide evidence of being a current member of their home country national model body.

join through a nominated club, and that verifies they can fly safely, to the equivalent of a wings badge. The club may charge a fee for this. Also sign an agreement that they understand and shall obey MFNZ rules, including CAA Part 101 and the brief terms of our insurance policy.

The membership will be valid for a period of 30 days (this could be longer, by arrangement).

The Temporary membership does not attract a MFNZ fee. A form for applicants will be available shortly.

### Park Fliers Membership

The regulation of a model flying activities in Parks lies Local Authorities and MFNZ cannot arbitrarily make decisions about flying in parks, so the provision of a Park Flier Membership is dependent on cooperation from local bodies. The MFNZ council was directed by the AGM to initiate discussions with Local Body groups and to draw up a Code of Practice for Park Flying to assist with this.

### Change to Club Manual sect 6.12. Frequency Control.

Due to the extensive use of 2.4Ghz it was approved that the Club Manual para 6.12 be amended to read - *Clubs have the responsibility to ensure adequate and proper frequency controls which may or may not entail the use of a TX Pound.*

### NDC rule change.

This was presented to the AGM for comment. There was a unanimous approval, and the Rule change was referred to the MFNZ Council for adoption. Replace rule 5.2.3 with 5.2.3 Eligible Flying Days."

The NDC programme will advertise events to be flown in each calendar month January through to November. Flights may be made on any Saturday or Sunday for the advertised events for that month. The contestant must advise the timer before starting the event that these are official NDC flights. The contestant must then complete the event that day and may not restart or complete it on another day. Where the event is a club or SIG event the contest director may declare the event an official NDC event." **NOTE** . *Rule changes become effective once published in the MFW*

### Temporary Sites

For reasons of safety public accessed displays, on temporary registered sites, must henceforth use 2.4 GHz only. Site details, safety procedures, programme and pilots details to be lodged in advance with the MFNZ Sec, who will temporarily register the site for the day, (as long as it meets safe operating requirements).

Examiner /Instructors - I have received a few questions/comments about these two roles.

Instructors are nominated by Clubs for their experience and suitability to be an instructor. Clubs notify MFNZ who maintain list of Instructors and issue an Instructor Certificate (blue).

Examiners' are experienced club members selected by the club and are not registered with MFNZ.

Ideally an instructor should not test their own students.

### Promotions and Displays

Four pairs of 3m high outdoor MFNZ display banners (are available to be loaned to Clubs. They have spiked bases that stick into the ground (see Omaka display in July MFW) They are available for public display or club days and events. You can collect them or have them sent to you. Clubs will need to pay the return postage.

One pair of the banners are in the care of each of Banners are in the care of: Dave Wright 09 816 8090

There are two pairs of up pull up banners (2.2m high, that work well in doors) Contact Dave Wright or Peter Hewson.) to borrow them.

There are brochures and back copies of MFW available for distribution to promote model flying contact Dave Wright.

R/C simulators available for loan from myself in Auckland or Peter Hewson in Christchurch.

At times there is a high demand for these items, so book early if you can.

### Events Calendar

The annual printed calendar distributed with the November MFW will no longer be published.

The Events Calendar on the MFNZ web site will be the means of listing your events in future.

Please send details of your events to

# Thermal News



## Team NZ Wins at the F3K Worlds in Sweden

Joe Wurts of NZ is the new and first ever World Champ in F3K!!

The double for NZ, Team and Individual GOLD.

### Individual Results

- 1 **Joseph Wurts New Zealand NZL-9725 1000 1000 1000 1000 -911 1000 5 000 100,00%**
- 2 George Morris USA USA-L670 1000 988 -920 1000 1000 994 4 982 99,64%
- 3 Mike Stern Great Britain GBR-136270 1000 993 1000 1000 977 -693 4 970 99,40%
- 4 Martin Herrig Germany GER-2884 1000 994 -666 1000 948 994 4 936 98,72%
- 5 Sören Svantesson Sweden SWE-39136 1000 1000 -844 1000 871 956 4 827 96,54%
- 6 Jonas Ekman Sweden SWE-23414 1000 1000 -666 1000 927 795 4 722 94,44%
- 7 Hermann Haas Austria AUT-63003600 1000 991 755 1000 973 -152 4 719 94,38%
- 8 Kevin Botherway New Zealand NZL-7774 1000 988 866 1000 813 -761 4 667 93,34%
- 9 Alan Smith South Africa RSA-15956 1000 994 666 887 978 -101 4 525 90,50%
- 10 Gunar Reinicke Germany GER-3282 0 991 1000 500 864 969 4 324 86,48%
- 11 Reto Fiolka Switzerland SUI-35865 1000 986 -550 758 848 659 4 251 85,02%
- 12 Craig Goodrum South Africa RSA-10507 1000 989 666 -500 820 639 4 114 82,28



### Team Results

- 1 **New Zealand 23946**  
Joseph Wurts 8 000  
Kevin Botherway 7991  
Peter Williams 7955
- 2 Germany 23762
- 3 Austria 23752
- 4 Sweden 23555
- 5 USA 23367
- 6 Slovenia 23 201
- 7 South Africa 23 156
- 8 Czech Republic 23 001
- 9 France 22 914
- 10 Great Britain 22 805



Read the report done on Hawke's Bay Today -

<http://www.hawkesbaytoday.co.nz/local/news/high-fliers-land-gold-at-gliding-event/3959244/>

Well done guys!

# Ambury News



## Seen at Ambury..... before lambing started.

On our last flying day at Ambury (3rd July), a few of us arrived at the usual field to find the grass shouldered by the fence, roped off and sheep everywhere in the paddock. Aneil took a call from Ted who advised the farm staff had redirected himself and Andrew to another site further around the far. A 'convoy' set out and after a few wrong turns we arrived at a part of the park at the end of one of the side roads off Wellesley Street bordering the Mangere Pony Club. Andrew and Ted were already there and using a bungee for the club 2 metre and Andrew's full-house 2 metre. The field we used was undulating and as you can see from the images below, there were a few trees around, but the wind was okay, a bit turbulent in places, but on the whole, it was quite flyable. Mention was made of the fact that as we were 'outside' our Ambury NOTAM 'zone' that flying be kept to a 400 feet maximum. A bit of fun electric flying was had before the weather started to close in around midday.



## And .... seen at Ambury..... post lambing.



Laurie Jackson's new electric foam Spitfire (ex Hobby King) Only needed a receiver and battery, everything else was included. Flew well, but still needs some small CG adjustments, was the verdict from test-pilot Laurie.



# Ambury News



Also seen at Ambury post lambing.....



(Left, Above and at Right)  
A couple of electric Piper Cubs.  
Colin Rothery's ARF Cub and  
Brett Robinson's Mountain models kitset.  
Both look the same, weigh about the same  
and fly the same, although Colin's has an  
bigger motor/battery combination.



Tony Gribbles new foam electric 'Lazy Bee' in flight. Cheap, easy to build and flies well too!



Colin Rothery's electric SE-5A doing what it does best. Easy to fly says Colin, although he had to add way more aileron-rudder coupling to help it out in the turns. As you can see it looks great in the air.

To view even more Ambury Images go to:  
[www.aucklandsoar.org.nz/ambury\\_antics.html](http://www.aucklandsoar.org.nz/ambury_antics.html)



## Andrew & Teds Excellent Ruapuke Slope Adventure

Andrew Reid

The Hamiltonians are quite spoilt for SW (Ruapuke) and W (Raglan) slope sites - coastal views and smooth air, close parking, good landing areas, and few bystanders around. I've been to Raglan a few times but never made it to Ruapuke. By chance a weather forecast of "strong" south westerly's coincided with a week-end off, and some of the Hamilton guys on RCSoaring.co.nz were planning on heading out to Ruapuke, so I figured this was a good time to make the trip. A few phone calls were made and it turned out Ted, with his new yet-to-be flown Speedo Thermo was also keen for the trip. (As an aside the club needs a proper way of organizing impromptu "events" like this - it would have been nice to get more people coming along, and car-pooling is definitely desirable for trips down south).

We headed off at about 8:15 from Auckland with fingers crossed for not much rain and good wind. The trip is about 2h 15min, the last 10 minutes or so on some gravel roads. There were a few ominous clouds and showers as we drove, but as it turned out the last of these finished just as we arrived (actually we were lucky with the rain as we only had a 1 minute light shower the whole 4 odd hours we were there - in contrast to Auckland which had rain on and off all day).

Stepping out of the car... hmmm, the wind seems quite strong. We decided to leave Teds Speedo in the car for the moment ( I have one of these and it's great, but isn't a heavy wind plane), and headed up the 300 meter walk to the slope carrying Teds Slope Racer, and my Dynamic 40, Carbon Big Bird, and Windrider Bat. We walked into what one of the Hamilton guys described as the strongest winds he'd ever seen out on the coast (I think someone measured it at 45 knots at one stage). Just walking up the slope with the 2.5m span big bird was a mission in itself. Good move to leave the Speedo in the car...



At the top I quickly had the Bat in the air. I built it as a bit of a "lead sled" so it was fine in the high winds - you just had to watch you didn't get blown too behind the slope because it was quickly all over and you had a long walk ahead of you. Ted had a couple of attempts to get his racer in the air.

The first launch went straight back over his head with a landing in the paddock behind - fortunately no damage done. Then he tried to the right a bit and got it in the air, but didn't make any progress out into now insane wind so brought it in for a landing. I landed the Bat (the flat paddock behind the slope is ideal for landings) and decided it was time to put up the Big Bird. Trying to launch it in the huge winds was a bit of a nightmare - difficult

to keep straight and level, the whole plane was shaking violently, and the tail was flapping from side to side (and this is a carbon composite fuselage mind you....). I did eventually manage to get it airborne though and it flew great in the conditions.

To next page....



## Andrew & Teds Excellent Ruapuke Slope Adventure

Andrew Reid

From previous page....

There's heaps of room out front and you could climb out way high and bring it in for quite satisfying low high-speed passes. After about 20mins my nerves had had enough and I brought it in for landing. In the wind you didn't need flaps, and deploying them made the plane drift quickly backwards. ... Good landing with no damage. Then it was the turn for the little 40inch Dynamic. Although it's made for DSing, it was in its element in the huge winds - excellent penetration and a satisfying whistle in low speed passes. I managed to tip-stall it once trying to do consecutive rolls and turning at the same time, but fortunately the front side is very forgiving with long grass and soft soil (also for a composite, the D40 is built like a tank - there are reports of them bouncing off rocks in the States...).

Meanwhile Ted had a good fly of my Bat, which hopefully made the trip worthwhile for him.



There were a few Hamilton guys there with foamies, but all but most were too light to fly - although one Fusion with three huge bits of lead strapped to it did quite well. Later Simon from Hamilton turned up with his Raven and Strega which flew excellently in the wind. Unfortunately on landing the Strega got blown over the back of the landing paddock and snapped the fuse clean in two (he had it heavily ballasted so despite RCRCM's dubious quality control the break probably wasn't surprising). Hopefully it can be repaired.

All in all a great day out. The site is excellent and well worth the trip (though slightly less wind would be better....). There's also a nice looking Ruapuke Beach camping ground which would be good to stay at in warmer weather, with both the Ruapuke and Raglan slope sites nearby. I'm keen to head down again sometime soon and will try to organize something if out club members want to come too.

# A day trip to



Some of the more senior members of the club and some not so 'senior', decided to indulge in a visit to Airsail in Pukekawa.

Angus, Tony, Laurie, Dave and Peter (Parata) met and had lunch in Pukekohe, then drove down to the Airsail location in Pukekawa to meet John and Sharon Danks.

They provided not only stunning weather, but a great flying site and hospitality.

Sounds like a good day was had by all!



(Above) The Macdonald Humming Bird doing its thing.



(Below) Two shots of John's trainer in action.



(Below) Laurie's new electric on final.

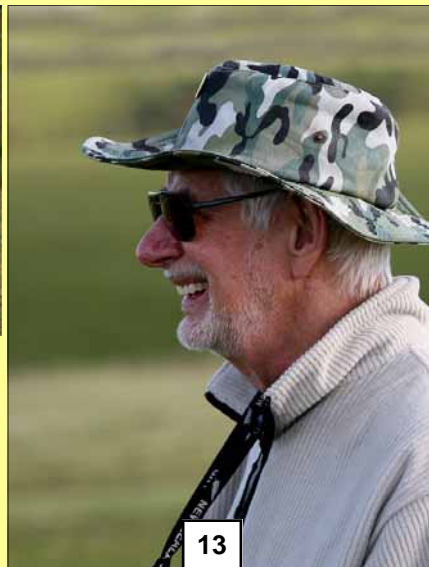


(Below) Happy Mr Jackson.

(Below) Angus, Tony & Dave



All photos from the lens of  
Peter Parata -  
Thanks Pete!



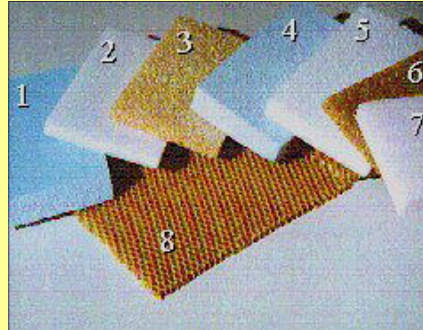


## Types of Foam

Foam is used in two ways; either for the cores material in wood veneered or glass vacuum bagged wings or as the sandwich material for the skins of hollow moulded wings. We've all come across white and blue foam but there are some other foams we could look at...

Left to right the samples here are

- 1) Styrofoam SP
- 2) Rohacell 51
- 3) Conticell
- 4) Styrofoam IB
- 5) De-Q-cell
- 6) Termanto
- 7) Polyfoam Plus
- 8) Nomex Aramid Honeycomb.



### POLYSTYRENE FOAMS

Polystyrene foams come in two types: expanded foam and extruded foam. Common bead-type white polystyrene is expanded foam (in a mould) and it's the cheapest available. It comes in a variety of densities from about 17 kg per cu. m. upwards for the large bead foam. Expanded foams are only really suitable for covering with wood veneer since the fine trailing edge needed for vacuum bagged wings is hardly obtainable with this foam. There are, however, better white foams other than the standard builder's yard material in DIY stores.



One such PS foam is De-Q-cell found in Germany which has a sort of crystalline appearance when you look at it. I haven't seen it for sale here in the UK but it maybe available from Windsurf board manufacturers, I don't know. It comes in 3 weights: 17, 30 and 40 kg/cu.m.



Extruded polystyrene (forced through a die) foams are eminently more suitable for wing cores - their closed cell structure giving a much finer trailing edge. In the UK we call it Blue foam, in France they call it Roofmate.

It doesn't have to be blue, of course for I have seen Gray board from the States, an orange one from Germany and I'm told you can even buy a green variety from the Bricolage at the Calais Hypermarket. An old DOW catalogue I have actually lists 17 types of Roofmate, Wallmate, Floormate boards with densities from 28 to 45 kg/cu.m. The one I generally use is called Styrofoam IB with a density of 28 kg/cu.m. but I have also used Styrofoam SP (34kg/cu.m.) which I found less easy to use.

**POLYFOAM PLUS** Polyfoam Plus, the pink extruded variant, available in the UK from LinPac, is once again an insulation material for building which boasts the use of steam instead of CFC's (Freon?) as the blowing agent. Its cavity wall board has a density of 20 kg/cu.m. while the floorboard comes in at 27 kg/cu.m. Lighter but a little more care needs to be taken because it's easier to damage its surface through heavy handedness and workshop dings. Cuts OK though with a standard hot wire set up.

### POLYMETHACRYLIMIDE FOAM

Otherwise known as Rohacell (PMI) foam, this is a comparatively expensive white coloured foam. It apparently does cut with a hot wire like polystyrene foam although it is often cut with a knife or saw. It is available in ready cut sheets at 1 mm, 2, 3, 4... up to 65 mm thick and more. Modelling applications require 1 or 2 mm thick sheets. Its superior compressive strength over PS foams means that it's ideally suited for sandwich construction. Modern moulded models (especially tailplanes) may use Rohacell as the sandwich between lightweight (40 - 70gsm glass or 100gsm carbon) plies of reinforcement cloth. It can be cut and sanded easily and is not subject to attack by most solvents (styrene, acetone, MEK, etc). Rohacell is made by Röhm of Germany as is classified as Rohacell 31, 51, 71, 110, 170, 190, the numbers denoting it's density in kg/cu.m. We would use the 51 type for modelling. UK suppliers are EMK plastics I believe.

### POLYVINYLCHLORIDE FOAM

PVC rigid foams are rarely used in modelling but full size gliders sometimes use it. Trade names are Termanto, Conticell, Divinycell. These cannot be hot wire cut easily but must be sawn to size, they are also used as sandwich materials. They are yellowish brown in colour. Densities range from 30 to 400 kg/cu.m.

To next page.....



Types of Foam - from previous page .....

## POLYURETHANE FOAM

We're more likely to see polyurethane foam from an aerosol can but it's also available in sheets as a sandwich material. It has few uses in modelling but I have heard of the aerosol foam used for repairing broken fuselage booms.

## POLYPROPYLENE FOAM (EPP)

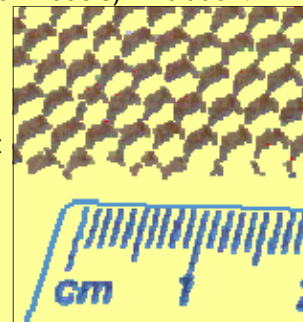
This is the latest foam on the modelling scene. In the US it comes under the brand name of Eperan 2, the bead precursor for the foam (Neopolen P) is made by BASF and is expanded in a low pressure steam chamber without using blowing agents. In the jargon it's called a closed-cell thermoplastic olefinic foam material. Nowadays it's used for wings and fuselages for Combat flying although was originally developed for use by the car (automotive) industry for impact absorption (i.e. bumpers, dashes, etc). EPP is a beaded foam which has a memory; that is to say that it returns to its shape after being distorted. It is a white coloured foam with a waxy feel and appearance and really needs to be sprayed with 3M adhesive before applying fibreglass reinforced tape and/or plastic film. It can be cut with a hot wire, though not as well as PS foams. I hear tell some cut it with a flexible wire saw too. As far as I know it comes in two standard grades, 1.3 lb and 1.9 lb per cubic foot. The lighter version is generally used for models.

## POLYETHYLENE FOAM (Ethafoam)

Polyethylene foam is similar to polypropylene foam and is made by the DOW Chemical company. As far as I know two grades are available: Ethafoam Nova and Ethafoam Select. They are low-density polyethylene foam products. For more info: <http://www.dow.com/ethafoam>

## NOMEX HONEYCOMB

Nomex is not a foam but since it is used as a sandwich material in full size (and can be used for models) I include it here. It's made by DuPont and is really a sort of expanded Kevlar paper. Layers of this paper material are laid one on top of the other with lines of adhesive. Each layer has the adhesive lines in a different place. When the adhesive has set and the layers are expanded the honeycomb is formed. It is then sawn into sheets. Available in 2 mm sheets upwards for modelling. Once again a very expensive material and, although difficult to use, my brother did make a set of moulded wings using it as the sandwich material. I sometimes use it between two plies of carbon cloth as a lightweight wood substitute for ply servo trays and the like. Even though Nomex is mostly air, it still comes in at 29 kg/cu.m.

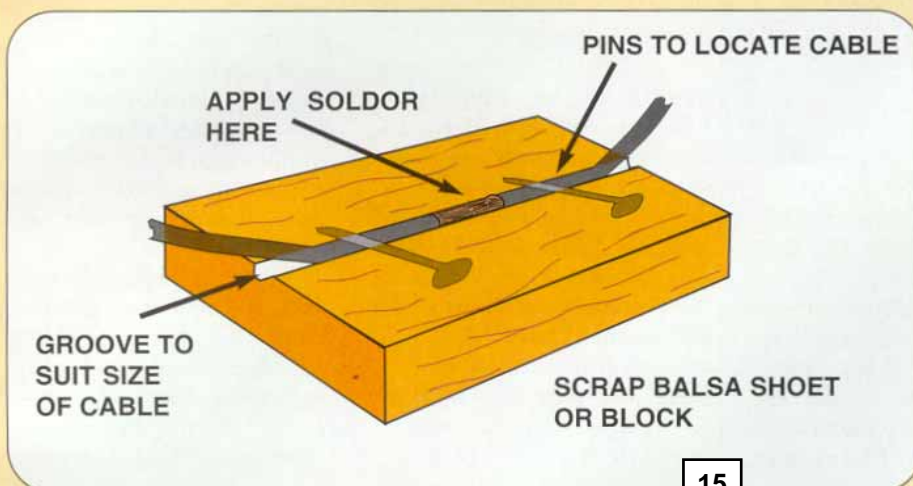


If you're looking for foam suppliers a good place to start is the Yellow Pages under Insulation. In the UK, Pink Foam came to me via LinPac and Blue Foam through Sheffield Insulations.

Rohacell made by Röhm in Germany ([www.roehm.com](http://www.roehm.com)) used to be available here but the company stocking it in the UK ceased trading. De-Q-cell comes from Bacuplast in Germany and Nomex is available from R&G Flüssigkunststoff, also in Germany.

## Hints and Tips

### SOLDERING CABLES



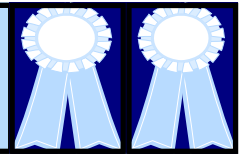
It is often difficult to get a neat solder joint when joining servo leads or the heavier wires used for electric flight systems.

After making some very lumpy joints over the years I found a quick and easy method of making neat joints.

Get a piece of scrap balsa sheet, 3/8" or 1/2" thick and two or three inches square. Make a groove in this the same size as the wire to be joined. If the wood is soft enough, the wire itself can be used. Mate the two ends to be joined in the groove and hold the wire down with a couple of pins. Apply solder and iron in the normal way. The groove holds the wires in perfect alignment and the solder is retained in the groove to give a perfect joint.

*P. Miller, Glemsford.*

# CLUB POINTS UPDATE



## 2011/2012 THERMAL CHAMPIONSHIP

	Thermal Thaw	
NAME	12/06/2011	TOTAL
Les Stockley	9	9
Chris Kaiser	8	8
Dave Larsen	7	7
Aneil Patel	6	6
Laurie Jackson	5	5
Ted Bealing	4	4
Cai-Uwe Jurasik	3	3
Simon Vandy	2	2
Robert Moody	1	1

## 2011/2012 OVERALL CHAMPIONSHIP

	Thermal	Electric	Slope	TOTAL POINTS
NAME				
Les Stockley	9			9
Chris Kaiser	8			8
Dave Larsen	7			7
Aneil Patel	6			6
Laurie Jackson	5			5
Ted Bealing	4			4
Cai-Uwe Jurasik	3			3
Simon Vandy	2			2
Robert Moody	1			1