

Aerobat -

**Official Magazine
of the
Hibiscus Coast Radio Fliers Club**



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COVER PHOTO

Just a "T" shirt I thought was appropriate!

H.C.R.F. Calendar 2017 - 2018

Pony Club events highlighted in Yellow and marked (P.C.)

Pony Club Rally days are every Tuesday afternoon at the field.

As usual our fixed flying times are every Wednesday, Saturday and Sunday morning

Date	Day	Event	Where/When
4 Dec	Mon	Club Night	Whangaparaoa Guide Hall 7-30 pm
10 Dec	Sun	Visit from Spring Hill Club	Wainui 8.30am
6 Jan	Sat	Winch Gliding	Wainui 8.30 am - 12.00 noon
31 Jan	Wed	Twilight 3	Wainui 5-00 pm
3 Feb	Sat	Show Jumping Competition	Wainui all day (P.C.)
5 Feb	Mon	Club Night	Whangaparaoa Guide Hall 7-30 pm
7 Feb	Wed	Twilight 3 Rain Date	Wainui 5-00 pm
22 Feb	Thur	Twilight show jumping	Wainui 4pm (P.C.)
3 Mar	Sat	Winch Gliding	Wainui 8.30 am - 12.00 noon
5 Mar	Mon	Club Night	Whangaparaoa Guide Hall 7-30 pm
7 Mar	Wed	Twilight 4	Wainui 5-00 pm
8 Mar	Thur	Twilight show jumping	Wainui 4pm (P.C.)
14 Mar	Wed	Twilight 4 Rain Date	Wainui 5.00 pm
18 Mar	Sun	Open day	Wainui 8-00 am
22 Mar	Thur	Twilight show jumping	Wainui 4pm (P.C.)

From the Editor's Desk



To you and yours at this special time of year, Ngaire and I wish you all the best for the festive season and the years to come.

We have had a very busy and fruitful year with little time for flying. The Lazy Bee and the Witch had a few flights from our front

"soon to be" lawn (Please note we mean Ross's two model aircraft, not us personally.) Hopefully in the New Year things will slow down a little and we will get to make it to the field more often.

It was great to see all those that made it to the twilight BBQ but missed those who we not able to attend. As usual Nigel did a great job on the cooking and quite a lot of flying took place. We are looking forward to seeing you all at the next one on the 31st January.

Well that's all for now

THE EDITOR AND WEATHER
WITCH HO HO HO

From the President's Desk

Greetings everyone,

I hope we are all in good spirits with the lovely weather we're having at the moment. If there's anything good about having our lousy winter weather it's making us appreciate our spring and summer isn't it.

As our first Twilight in October had to be cancelled due to wet windy weather and a muddy field, it was a relief that our 22 November one turned out to be a lovely day and evening. Well so I was told as unfortunately yours truly was unable to make it so spent the evening trying not to think of Nigel's superb BBQing abilities !!!



Just thinking back to the previous Sunday at Valentines where we had our Christmas lunch. It was really nice. Well organised by Henny and Carmel who put a lot of time and effort into it. A big thank you both from all of us and really appreciated.

The flying field has been put into haymaking at the moment, I'm guessing it will be cut sometime in January so we won't be driving across it. The runway is in great shape though I swear now the grass is well over our knees it's only half as wide.

So that gives me another excuse for not maidenizing my Typhoon and Lysander - think it would be prudent to wait until the hay is in. I am even thinking of bribing Jim into giving it an extra run with the mower that would make it 10 paces wide :-)

We can then bring back the two outdoor tables to the pit area so we can sit around where all the action is and have a chat etc.

So it's all to look forward to, as well as your Christmas and New Year celebrations with family and friends.

Things to remember

- The field's closed on Christmas Day and New Year's day.
- No Club meeting in January
- Our next Twilight is on the 31st January
- Pony Club have the field on the 3rd February.
- Just check our webpage for any updates etc.

Ok I would just like to thank you all for your help this year in making our club as friendly as it is and just a neat place to be!!

So from all of us on your committee we wish you all,
A very Merry Christmas and New Year.

Happy Landings

Pete

The problem with sex in the movies is, that the popcorn usually spills.

Henny's woes

By Henny Remkes



My nice big Corsair suddenly decided to do its own thing and ended up in the long grass on the other side of the road at Wainui.

I expected a lot worse, but some bloody Jap Zero took a bite out of one wing.



Should be easily fixed 👍



Piece of wing back where it should be but the area to be glued was too large for 5 minute epoxy. I thought of PVA but needed a lot of pressure and I didn't want to use tape and strip a lot of paint off.

In the end I used 30 minute epoxy and kept the pressure on for around 25 minutes.



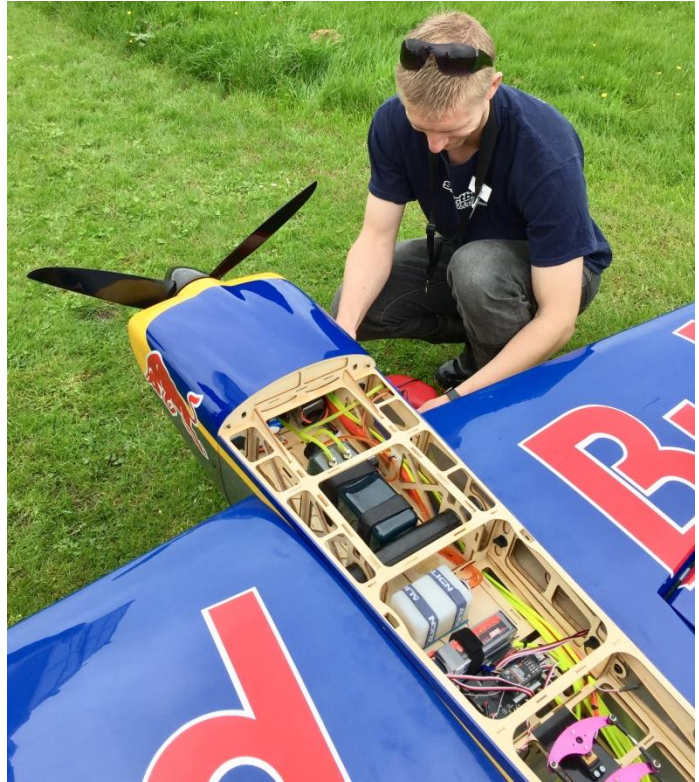
I drive way too fast to worry about cholesterol.

My Goldwing Extra 300 LP V4

By Linton Evans. Photos by Henny Remkes

Model: Goldwing Extra 300 LP V4 100cc kit in red bull livery.
Wingspan: 103"
Length: 95"
Flying Weight: All up around 13Kg.

It is powered by a DLE 120cc 2 stroke parallel twin with Walbro carburettor in it which produces just over 12 hp and swings a 26 x 10 3 blade Biela Prop at just on 5700 RPM (still breaking in the engine, hoping to get closer to the 6K mark). The motor runs twin flexi header pipes which couple into 2 x front dump canister mufflers which run through the bottom of the fuselage.



To finish off the front, the model has a 4" carbon fibre spinner which adds a nice look .

Under the hood, a RCXLE Power Distribution Unit at the heart of the electronics. This unit supports up to 16 channels , features a built in LED display with real-time display of voltage and flight time with adjustable servo voltage, Built in 20Amp BEC and optical CDI switch. Feeding the unit are 2 x 2800mah 2S packs which provide plenty of redundant power for all.

There are a total of 9 x Savox high torque MG servos running on 6V which provide over 16+kg-cm of torque each, with aluminium KUZA hardware all round on the control surfaces.

On-board there is a RXECL Dual master switch for avionics and ignition secondary connected to a Spectrum 9 Channel Receiver with integrated telemetry and dual remote satellites located up front. There is also an on board tachometer in the canopy for keeping an eye on the big spinning thing up front.



When someone says, "You've Changed", it simply means you've stopped living your life their way.



For show purposes I've added a 6oz smoke tank inside the cabin with RCXLE smoke pump which I've plumbed into one of the cannisters.

Build took me about 3 months, however I had been waiting for the winter blues to pass before putting her up. The majority of the kit was ARF so it was fairly straight forward build. There were some areas such as the firewall and landing gear which needed to be re-enforced to support the bigger donkey up front.

As the model has to officially be registered with MFNZ, Colin Austin from the club kindly has assisted with the build inspections and maiden flights to gain the permit to fly at public sites. Thank you Colin!

The maiden:

S*#t I was nervous! However it was... simply put, a dream to fly! Two clicks of left aileron was all I needed and it flew amazing.

Landing is going to take some getting used to however, as it's big and fast. A slight nose over after running out of runway at the end of the second flight led me to a cheeky wink to Jim about lengthening the runway ☹ he he...



I found there was only one way to look thin, hang out with fat people.

AROUND THE CLUB

Photos by Henry Remkes



Wayne's 049 powered Bixler does need a bit more power.



It must be good if the cook eats here!



Bass's spitfire touched down a bit hard.



Ian McEwan's cute little yellow crop duster.



Great decisions after too many Whiskeys



Good food in the sunshine.

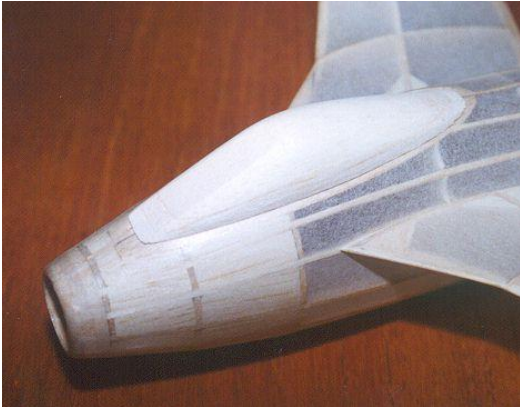
Red meat is not bad for you. Fuzzy green meat is bad for you.

Moulding Your Own Cockpit Canopies

From Free Flight Scale UK magazine.

When you start building from plans rather than kits, one of the problems you will eventually come across is the necessity to produce your own cockpit canopies. Those in kits are usually vacuum formed, but as not many of us are lucky enough to have a vac-form machine, we have to use another method. To aid those attempting a home made canopy for the first time, here is a step by step illustrated guide to the simple "plug moulding" method I use.

Step 1



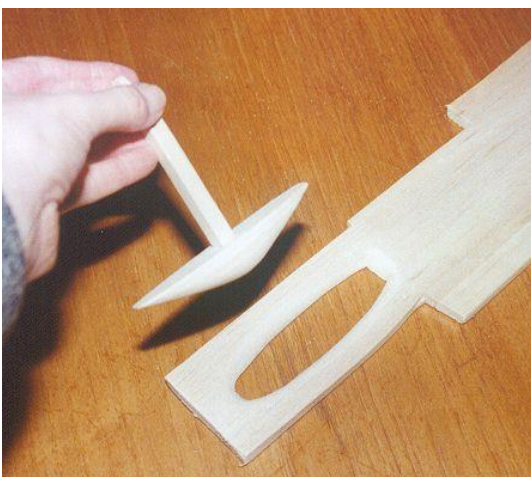
Take a block of medium to hard balsa and carve to the shape of the required canopy. This is the hardest part of the whole process - it takes time, and you make lots of mess! Test fit the part constantly against the the model, and cut a template from a copy of the plan (stuck to cardboard if you like) to make sure you get the correct outer profile. Really take your time to get as good a fit as possible to the model - this will pay dividends later on. Finish off the mould with progressively finer grades of sandpaper, down to about 600 grit or so. I do not apply anything else to finish the mould - just bare balsa (you wouldn't get away with this if using a vac-former, as the plastic would be sucked into all the imperfections)

Step 2



Next we must glue a 1/8" thick plate onto the bottom of the canopy mould. If the canopy has any vertical or steep edges that also mate with the fuselage, these need to be extended as well. For a very steep edge on a deep canopy, you may need to add a thicker lump of balsa, and round it off towards the top, in order to stop excessive thinning of the clear sheet over the sharp corner during moulding. The addition of this extra material is important, because it ensures we have a clean, sharp edge when the canopy is trimmed. The join between the mould and the extension acts as a cutting guide when trimming.

Step 3



With the extra material sanded flush with the canopy form, we now need to make a simple female jig to push the mould into. This is just a hole cut in a piece of spare 3/16" or 1/4" balsa sheet, so that there is about 1/16" clearance to the male mould. This ensures that the plastic sheet stays close to the sides of the male mould when it is pushed through. Note the entry to the hole is rounded off on one side of the sheet and smoothed to give the clear material a nice gradual lead-in.

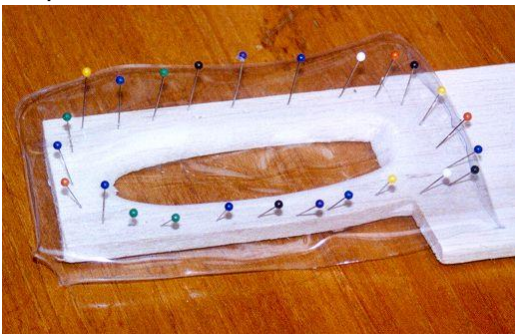
Everybody repeat after me: "We are all individuals."

Step 4



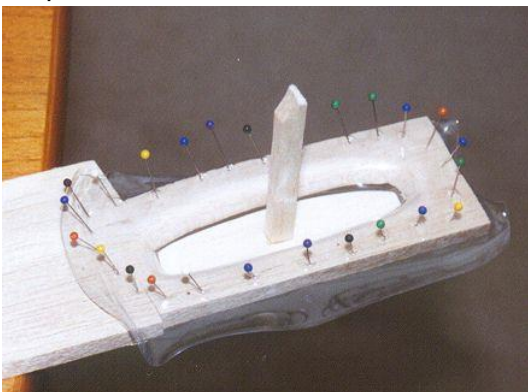
Now we need to find some plastic sheet to use for moulding. I never go out and buy material, but collect pieces of blister packaging whenever I see something that might be suitable. This is mostly PET and PVC I think, but don't quote me on that! My favourite material is vac-formed Easter egg packaging, and you can see some of my collection below (eating the contents is a necessary chore that just has to be done....) If you cut a piece to use, and place it on a tray under a grill, it will soon revert to its original flat shape.

Step 5



Cut a piece of sheet to generously fit over your female mould, and attach it as shown. Note the highly sophisticated (!) method used, involving lots of pins. You can use little clamps or clips if you like, but I find pins work fine. Also note that the piece of sheet is not perfectly flat - it really does not matter at all if it came off the grill pan with ripples all over it.

Step 6



Now for the fun part. Put on some oven gloves, and grasping the far end of the plastic sheet, hold the pinned clear sheet under the grill - you can rest it on the tray at a suitable height. Here is where trial and error come into play - you have to pick the right moment to remove the sheet. Peering under the grill, you should see the clear material tighten up, then just begin to sag a little. At the same time the first wisps of smoke may just be seen coming from it. At this stage quickly remove it and plunge the male mould into the clear sheet, through the female mould. The photo below shows how far to push it in.

A couple of things can go wrong at this point. Firstly, if the sheet is not hot enough, you will not be able to push the male mould all the way in. If this is the case, then simply put it back under the grill again. The sheet will flatten out again, and you can leave it a bit longer next time. Repeat this procedure as many times as you like!

If you have overheated the material, it may be discoloured, or gas bubbles may have formed inside. If so, don't heat it so much next time. In extreme cases, it may catch fire of course, so BE CAREFUL and NEVER leave it unattended under the grill.

I had some sheet once that went milky when you heated it up. Some clear material just does not work very well, in which case, bin it, and try some different stuff.

You may need several attempts to get a good result, but that doesn't matter - the mould will survive quite happily. For deep drawn parts, the thickness of the sheet can be critical. Ideally you want the thinnest canopy you can get, to save weight, but a deep moulding will need a thicker sheet than a shallow one if it is not going to be so thin at the sides that it will be unusable. Some experimentation will probably be needed. These mouldings tend to be thickest at the top (where the mould first touches the plastic sheet) and thinnest at the lower sides, where the sheet gets most stretched.

Step 7



Remove all the pins and admire the finished canopy. The first photo below shows the canopy with mould still inside, and the second with the mould removed.

Step 8

The canopy is trimmed with the male mould reinserted, so you can cut through the canopy with a sharp knife into the join in the mould where the canopy block meets the extra 1/8" sheet we added earlier. Test fit the canopy to the model, and do final adjustments using nail scissors and/or emery paper.

Step 9



Now the canopy must be attached to the model - a process which often gives problems. I have quite a few models where smears of glue on the canopy or windscreen spoil their appearance.

Until recently I favoured clear UHU glue - the stuff in the yellow tubes. This has the advantage of being transparent, strong and does not give off any nasty fumes to "bloom" the inside of the canopy (this happens with most Cyano adhesives, and unless you can get at the inside of the canopy to wipe it off afterwards, you are stuffed!) The main problem with the UHU is that it is very

difficult to apply without getting strings of glue everywhere, or unsightly blobs. I have attached canopies with normal PVA wood glue before, which allows you to do an almost invisible join (it dries crystal clear and does not attack the canopy at all), but the join is not very strong, and you can lose your canopy in a heavy landing! My latest method, the favourite so far, is as follows:

- ◆ Add any cockpit detail and paint as required.
- ◆ Apply a tiny bead of PVA wood glue around the canopy/fuselage join with a pin. Work round carefully, a bit at a time, and smooth the outside if necessary with your finger.
- ◆ When dry, remove the tape or rubber bands, and complete the join with PVA where you couldn't reach before. Check for any gaps and fill with more PVA if you find any.
- ◆ Apply a thin layer of cyano adhesive over the top of the PVA using a pin, spreading it slightly onto both the canopy and fuselage. You will be painting frames around the base of the canopy anyway, so you probably have 2 to 3mm to play with before you get into a visible clear area. The Cyano will not fog the inside of the canopy because the PVA has sealed the joint first.

Step 10

The finished canopy glued in position on the Saab J29. When I come to paint a model, I mask off the transparent bits, leaving the framing uncovered, and spray it with the fuselage. This makes the canopy seem more an integral part of the airframe, rather than having that "tacked on afterwards" look.

