# Aerobat-



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#### **Committee contacts**

President Wayne Drinkwater wdrinkwater@hotmail.com (09) 426 8584

> Secretary/Treasurer Hayden Purdy

> > (09) 427 5906

Club Captain Nigel Grace Nigel.Grace@vtfitzroy.co.nz (09) 420 3182

> Social Secretary Ngaire Ladd (09) 4260840

Frequency Officer
Jim Hall
jimh,geo@clear.net.nz
(09) 426 1478

Editor Ross McDonnell Ngaireross@xtra.co.nz (09) 4260840

## Aerobat

Volume 2 Issue 4

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## From the Editors Desk



Well it's the time of year when the members decide who will take the reins of the club for the next year.

With the A.G.M. came the revelation that I, Ross McDonnell, your obedient servant, will now be producing the Aerobat. All articles and pictures by E-mail only please.

As I have always admired the layout the Hayden started, I plan to keep as much as possible the same but put my own twist on it to produce a magazine that you all will appreciate and of course more importantly, all read.

The Magazine does take quite a bit of work to produce and it is not that hard to get slightly annoyed when 1 week after the mag comes out someone asks what date an event is on, even though it had half a page spread and was also in the calendar on the back page.

Anyway this is my first offering and I hope you all enjoy it.

Ross McDonnell
Editor
ngaireross@xtra.co.nz



## **DEMENTIA QUIZ**

#### **FIRST QUESTION:**

You are a participant in a race. You overtake the second person.

What position are you in?

#### **SECOND QUESTION:**

If you overtake the last person, then you are...?

#### **THIRD QUESTION:**

Note: this must be done in your head only.

DO NOT USE PAPER AND PENCIL OR A CALCULATOR.

Take 1000

Add 40 to it.

Now add another 1000

Now add 30

add another 1000

Now add 20

Now add another 1000.

Now add 10

What is the total?

#### **FOURTH QUESTION:**

Mary's father has five daughters:

- 1 Nana,
- 2. Nene,
- 3. Nini,
- 4. Nono,

What is the name of the fifth daughter?

#### FIFTH QUESTION

A mute person goes into a shop and wants to buy a toothbrush. By imitating the action of brushing his teeth he successfully expresses himself to the shopkeeper and the purchase is done.

Next, a blind man goes into the same shop and wants to buy a pair of sunglasses.

How does he indicate what he wants?

See page 5 for answers

## Thought you all may be interested in this



#### New offering from Hobbyking



## The Little Bug Laser Cut Balsa Kit (1000mm)

#### **Includes**

Pushrods Control Horns CA Hinges Landing Gear

## **Propellers**

#### Gas vs. Electric Propellers

Propellers designed for gas engines are relatively thick and strong. There are two reasons for this. First, gas engines create a lot more vibration than electric motors. You want the propeller to retain its shape and not break as it spins, so they naturally need beefier hubs and blades.

Second, as a general rule, gas engines spin their propellers faster than electrics. A faster spinning propeller means a higher Reynolds number seen by the blades. Thicker blades work better at these higher Reynolds numbers. And yes, you need thicker hubs to transmit the higher levels of power to the airplane.

Electric propellers tend to be very thin and light. They are optimized for their intended application. But that does not mean that a gas propeller won't work on an electric motor. It will work, just not as efficiently.

#### **Propeller Savers**

All of my small electric motors use prop savers. These are propeller mounts that use an O ring to secure the propeller. If the propeller hits the ground, the O ring will give and allow the propeller to fold back. I do not think I have ever broken a prop while using one of these.

The downside of prop savers is that the O rings do not last all that long. I have gotten into the habit of inspecting them before a day of flying. That helps. Invariably, once in a while, I'm flying around and lose power. I always assume that what happened is that the battery ran down and the BEC kicked in.



Then, after the airplane lands, I notice that the propeller is gone. What really happened is that the O ring gave up the ghost in mid flight. The prop is gone, never to be seen again.

Some pilots use regular propeller mounts even in their smaller models. That is your choice. I tend to use whatever the motor comes with.

#### Spares

Always bring at least one spare prop with you when you go flying. Even if you hardly ever break props, I guarantee you that the day that you leave the spares at home will be the day something dumb happens and you break your only prop. I guess that is one of the few dumb things that I have not done.

#### Use the Wattmeter, Luke

I have learned that two identical looking propellers can have dramatically different power loads on a motor. If you are flying close to the current limits of your motor or speed control, use a wattmeter to confirm you are not abusing your power system. Abused power systems bite back when you least expect them to.

Reprinted from www.RCadvisor.com

#### Here's why a hot glue gun is a foam models best friend.

Try that with a balsa model in only 1 hour Wayne Drinkwater



1.05pm



2.05 pm

#### **DEMENTIA QUIZ ANSWERS**

#### **FIRST QUESTION:**

If you answered that you are first, then you are absolutely wrong!

If you overtake the second person and you take his place, you are in second place!

#### **SECOND QUESTION:**

If you answered that you are second to last, then you are.....Wrong again.

Tell me sunshine, how can you overtake the last person??

#### THIRD QUESTION:

Did you get 5000?

The correct answer is actually 4100 If you don't believe it, check it with a calculator!

#### **FOURTH QUESTION:**

Did you answer Nunu? No! Of course it isn't.

Her name is Mary! Read the question again!

#### **FIFTH QUESTION:**

It's really very simple..... He opens his mouth and asks for it

Did anyone actually employ you to think??

If so do not let them see your answers for this test!

#### **MEET YOUR NEW COMMITTEE!!**



From Left to Right

Nigel (fix it) Grace Club Captain

Ngaire (Weather witch) Ladd Social Secretary

Wayne (try it) Drinkwater Chairman

Hayden (Compute it) Purdy Secretary/Treasurer

Jim (Crash it) Hall Frequency Officer

Ross (The Bee) McDonnell Editor



#### Open day Raffle

Hobbyzone Super Cub RTF
Sponsored By Hobby City Albany
Winning Ticket
Kim Long
Red Star 90D

## From the presidential suite

Here we are with my newly elected president's waffle! We have pretty much the same committee as before except Ross MacDonnell and Hayden Purdy have swapped jobs!!

So a big welcome to Hayden Purdy for filling the secretary/treasurers post! Quite an undertaking and one that I wouldn't want to do, and it's nice to see Ross MacDonnell back at the helm of the Aerobat (get ready for a barrage of groan inducing jokes)

Nigel Grace remained as club Captain a role that he does admirably although I'm not too sure that role covers ongoing lawnmower repairs!

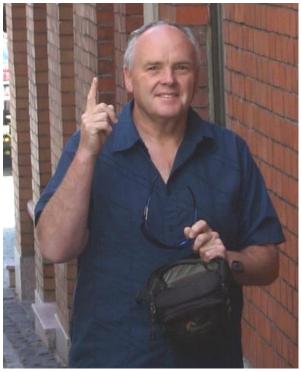
Jim Hall remained as frequency officer which appears to be a diminishing job as more of us are lured into the care free world of 2.4 qhz

Ngaire Ladd is once again our social secretary which is quite a job in its self arranging our Xmas lunches not to mention the demands of our open days!

The trophy for most improved flyer was awarded to Scott Purdy a well deserved award as I rate Scott as probably the most capable fliers in the club gaining not only Basic Power wings but Gas Turbine, and Glider wings and I'm sure Helicopter wings will not be too far behind.

Best crash went to Jim Hall for his repeated "incidents" with the club mower!!

President's award went to Caitlyn Carter for not only having one of the most visible Bee's in the club but also gaining her "wings" the first female pilot for our club as far as I am aware.



Other matters raised at the AGM were a call to yet again review the clubs flying rules!

I feel we have far too many rules; after all we fly basically "toy" planes from a farmer's field! How many rules do we need??

I am sure with a bit of patience and courtesy we can all get along

However... if you feel strongly enough that they need changing we will have a vote on the matter at the next meeting!

Scott Purdy was put forward to be our next instructor, an excellent choice as he is an ideal person to deal with the younger people coming into the hobby, and he has helped me improve my skills no end and I am not the easiest person to get through to!

Wayne Drinkwater (president)

#### Have you paid your Club Fees for 2013-2014?

Fees are now due and Payable to H.C.R.F. account 12-3084-0191089-000 or contact Secretary/Treasurer Hayden Purdy

Senior \$100 Superannuate \$95 Family \$105 Junior \$40

## **Around the building boards**



Wayne's build board, (the kitchen table,) and not a scrap of foam in site. Foreground is the "Little Bug" and at the back an "Electric Cub." Wouldn't it be nice to have a laser cutter.



The "Dogfight Duo." Two more superb models from the Purdy hanger. In the foreground is a Me109 and behind is a Spitfire.



Little bug from the inside. I wonder if this will take over from the Lazy Bee?



Note the detail. Fly's as good as it looks. I can hardly wait for the dogfight to commence.



Something new at the field. Be afraid. Be very afraid.







Neil Baird's vintage style Retro Series - Pioneer



Ross Purdy's Vic Smeed designed "Pretty Baby"



Most improved flyer went to Scott Purdy. From training to basic power, glider and jet wings badges.



Best Crash went to Jim Hall.

The consistency with which he crashed the mower was impressive.



Presidents award went to Caitlin Carter.

Not only the first lady to pass their wings but also the prettiest Bee.



Baz Corbett receiving his basic power wings.

## The differences between Depron and EPP

#### **Depron**

I get asked quite often the differences between EPP and Depron so here is a little article that will hopefully help the list the differences.

#### Size / Thickness

The most commonly used thickness for scratch building RC airplanes is 6mm depron. The length and width is only determined by your project and what you can obtain.

#### Flying characteristics

A well built Depron airplane flies very precise, like its is on rails. Depron is very rigid and only requires carbon reinforcements on the high stress points such as a wing spar and elevator spar and in some extreme circumstances and fuselage spar.

Depron foam most times snaps or cracks when it reaches it maximum stress point. Stress failures are easily combated by adding a carbon fiber tube on high stress areas on the RC airplane. Be sure to use epoxy, very sparingly, to glue in spars.

#### **GLUES**

Depron requires the need of special foam specific glues such as the foam safe glue and foam safe accelerator carried at most hobby shops.

You can use epoxy and hot glue to build with depron, but this adds a tremendous amounts of weight to your build. Weight is not your friend when building airplanes of any size. Epoxy is a great for structural crash repairs, but I try to limit the amount of Epoxy.

CAUTION. The use of regular CA will burn and ruin your depron, so its very important you use the foam safe glue with accelerator. The accelerator is not mandatory by the manufacture, but I sure feel it its.

Another great glue for depron is the Foam Tac glue which according to the manufacture is specifically designed for depron.

#### PAINT.

Spray paints you purchase at any local hardware or big box store most often will eat the depron. So be sure to test your paint on scraps. (if you do not have any scraps, then you are not flying hard enough  $\odot$ 

#### **Durabilty**

With typical flying and moderately use, aka no crashing, you can figure for every 10 flights on a depron plane, you will spend about 10 minutes for repairing. If you crash your airplane hard, forget the repair and start the rebuild.

#### **Now for EPP**

#### Size / Thickness

The comparable size of 6mm depron is 9mm EPP.

#### Flying characteristics

EPP foam is much much more flexible than depron, so EPP airplanes do not fly as precise as depron. Now you can tape your EPP from front to back and it really strengthen up the EPP, but adds a TON of weight. EPP airplanes require carbon spars. How much depends on the type of airplanes, but it will require carbon.

EPP tears when it reaches its stress point, but is easily repaired.

#### **GLUES**

For EPP I personally use Foam Tac and hot glue to build and repair. Yes I know this goes against what I said about depron, but lets face it, EPP is for crash and bashing so I build EPP planes for crashing.

EPP is considered crash resistant but that all depends on your airplane and you definition of broke. I personally have flown a parkjet into the ground with a super mega jet going over 100mph with zero damage. The plane bounced nearly 10 feet high and the battery was US, but the plane and literally no damage.

EPP it's heavier than Depron but EPP is better for beginners.

A good tip for building EPP 3D type airplanes is to use a KF airfoil strip on the wing. It will make the plane fly better and makes the wing much stronger with not as much bracing, the theory being ,with less solid material to break High speed EPP planes will need a considerable amount of bracing when using the KF air foil unlike depron airplanes.

#### Summary

So now that you are really confused, here is a quick summary.

Epp is more flexible than depron and usually needs some carbon reinforcing, especially in the wing although so does Depron. 1 square inch of 9mm, 1.3 lb/ cubic ft Epp weighs in at .12 grams. 1 square inch of 6mm Depron weighs in at .14 grams. I've built and flown planes made out of both and the EPP will take far more punishment if you are a beginning flyer/builder. Depron is slicker looking but breaks up much more quickly in an accident.

Good Luck (Article supplied by Ray Wood.)

| H.C.R.F. Calendar 2013 – 2014 |     |                 |                                 |
|-------------------------------|-----|-----------------|---------------------------------|
| Date                          | Day | Event           | Where/When                      |
| Monday, 3 June 2013           | Mon | Club Night      | Whangaparaoa Guide Hall 7-30 Pm |
| Sunday, 9 June 2013           | Sun | Thermal Thaw    | Ambury Park 11 Am               |
| Sunday, 23 June 2013          | Sun | Christmas Lunch | Valentines Wairau Road Noon     |
| Monday, 1 July 2013           | Mon | Club Night      | Whangaparaoa Guide Hall 7-30 Pm |
| Monday, 5 August 2013         | Mon | Club Night      | Whangaparaoa Guide Hall 7-30 Pm |
| Monday, 2 September 2013      | Mon | Club Night      | Whangaparaoa Guide Hall 7-30 Pm |
| Wednesday, 2 October 2013     | Wed | Twilight 1      | Wainui 5-00 Pm                  |



'Tis the time for all good Gentlemen, their Ladies and their families to come and partake of that oldie feast that shall be known throughout the land as the





As agreed to at the AGM it will be held at

Valentines Wairau Road

Sunday 23 June at Noon

Adults \$27.90 per head – Children 10 to 13 \$1.50 per year of age.

Cash or cheque made out E. N. Ladd will be collected at Valentines before the start of the meal.

Please let me know if you will be attending so I can confirm numbers.