

# ***Aerobat -***

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



***April/May 2017***

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## CLUB INFO

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## COVER PHOTO

Wayne Drinkwater's  
 Spearhead Jr.  
 Designed in 1944 and  
 powered by a Cox  
 Baby Bee.

It is affectionately  
 named "Tree Hugger"  
 for some reason. (I  
 wonder why? Ed.)

## H.C.R.F. Calendar 2016/17

Pony Club events Yellow highlight have now been confirmed by the pony club  
 Sept 2016

Pony Club Rally days are every Tuesday afternoon at the field starting  
 September 2016.

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

Date	Day	Event	Where/When
1 April 2017	Sat	Winch Gliding	Wainui 8.30 am – 12.00 noon
3 April 2017	Mon	Club Night	Whangaparaoa Guide Hall 7-30 pm
8 April 2017	Sat	Pony Club Certificate Exams	Wainui All Day
22 April 2017	Sat	Wainui Ribbon Day	Wainui All Day
1 May 2017	Mon	Club Night & A.G.M.	Whangaparaoa Guide Hall 7-30 pm
6 May 2017	Sat	Winch Gliding	Wainui 8.30 am - 12.00 noon
3 June 2017	Sat	Winch Gliding	Wainui 8.30 am - 12.00 noon
5 June 2017	Mon	Club Night	Whangaparaoa Guide Hall 7-30 pm
18 June 2017	Sun	Mid year Christmas Lunch	To be advised 12 Noon

## From the Editors Desk



Have not been to the club much as the house building seems to take precedence according to "She who must be obeyed". The roof is on, plumbing run, electrics run, wrapped and closed in up to the top of the windows. Windows and gas fitting arrive this week so will be water tight very soon.

Did make the last twilight of the year even though I managed to get the camper stuck in the first 6 feet and needed to be towed out. A great social event with good camaraderie and sharing of the sky's so all got in plenty of flying.

I and a couple of students had a few good flights with the witch. The best Flight was after most people had gone home and the twilight was starting. She looked just the part with the background of golden sky.

From what I saw the club is still a great social club that wants to, and is capable of helping new members to the sport. Students are learning fast and with confidence. It won't be long until the younger ones, are doing landings and sitting their wings test. Don't the young ones learn fast? (Dam getting old.) Hope to see lots of wings badge presentations soon.

Great flying to all!

Ross McDonnell  
 Editor

## **From the President's Desk**

Greetings all. It's Sunday evening and I am reflecting, with a smile on my face, our day out at our flying field with our friends from the Spring Hill Club.

The weather was perfect our guests enjoying themselves as well as flying, mixing in with our members, and happily sitting at one of our tables with a sun umbrella up. I couldn't help thinking what a lovely place we are so lucky to have and enjoy, especially after the last few weeks of wet windy weather we sort of deserve it don't we.

So talking about good weather, last Wednesday we made the most of it and had our rain delayed Twilight evening. *(Thank you Weather Witch. Ed.)*

It was well worth waiting for as the weather was lovely, so nice to finish the summer on a high isn't it. *(Thank you Weather Witch. Ed.)*

Our master chef Nigel was away on Holiday poor lad and yours truly, gullibly thinking, well that's a cushy job fired up the old BBQ !!! Well I really enjoyed the experience – (the sausages and hash browns were passable but the eggs, well, let's just say welcome back Nigel :-)) and you lovely people were, I think, too busy chatting away to take notice or more than likely just too kind. *(Or sampling too much of Ross's world renowned, in Manangawhi, Whisky. Ed.)*

So ended another lovely evening with friends and great flying conditions. Roll on next season's twilights that's for sure.

Obviously it must be getting close to the AGM where we give out awards to members for various achievements. The most coveted and sort after one is of course, the best crash of the year award. Well it's a tight fight folks and this weekend was quite exciting and consequently one of us went a little overboard with the visual effects. We had a battery fire.

Ok, joking over. Obviously it was an accident but it could have had serious consequences. The battery shot forward in the crash, smacking into the fire wall, making contact with the hardware holding the motor in place, consequently shorting out the battery and woof up it went.



So please everyone check your models. I am going to have to modify a couple of mine, make sure you have a suitably robust barrier between the battery and any hardware that can cause problems, especially in a crash situation.

Well by the time your reading this the clocks will be going back shortly if not already, so we need to think about indoor flying again. Only need six people to break even. I am away until the 8<sup>th</sup>, so if you decide at the meeting to go ahead, I will need to book the hall. Is third Sunday of the Month as last year OK.

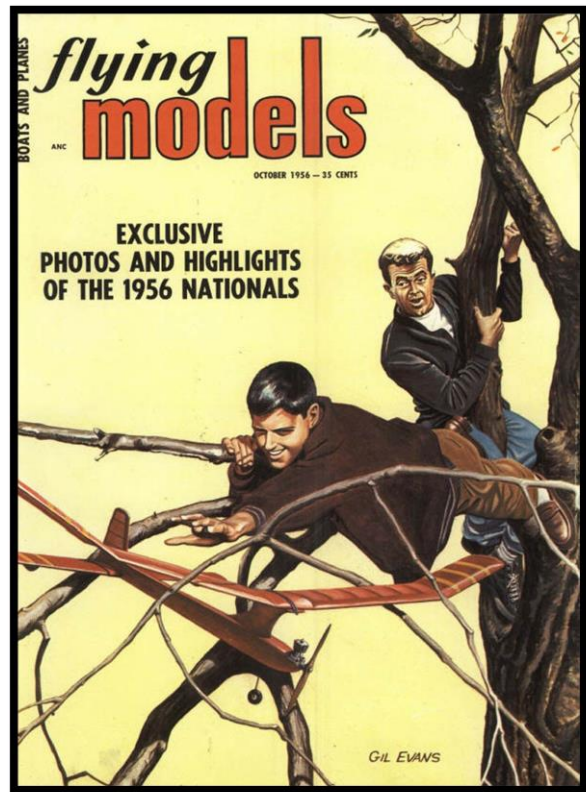
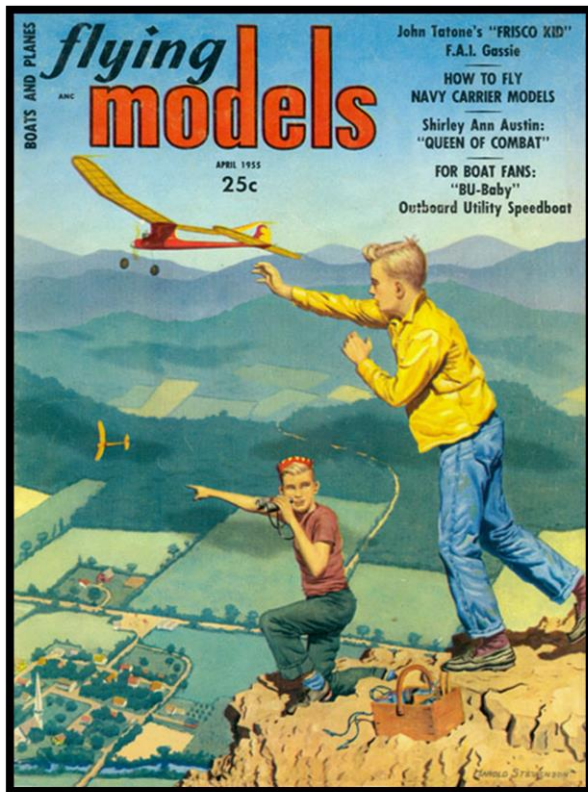
The 1st May 2017 is our AGM. Not a lot happening that I am aware of. The current committee members are willing to stay on for another year.

Ok that's about it folks. Hopefully the weather will stay nice for us over the next few weeks so we can get some good flying days.

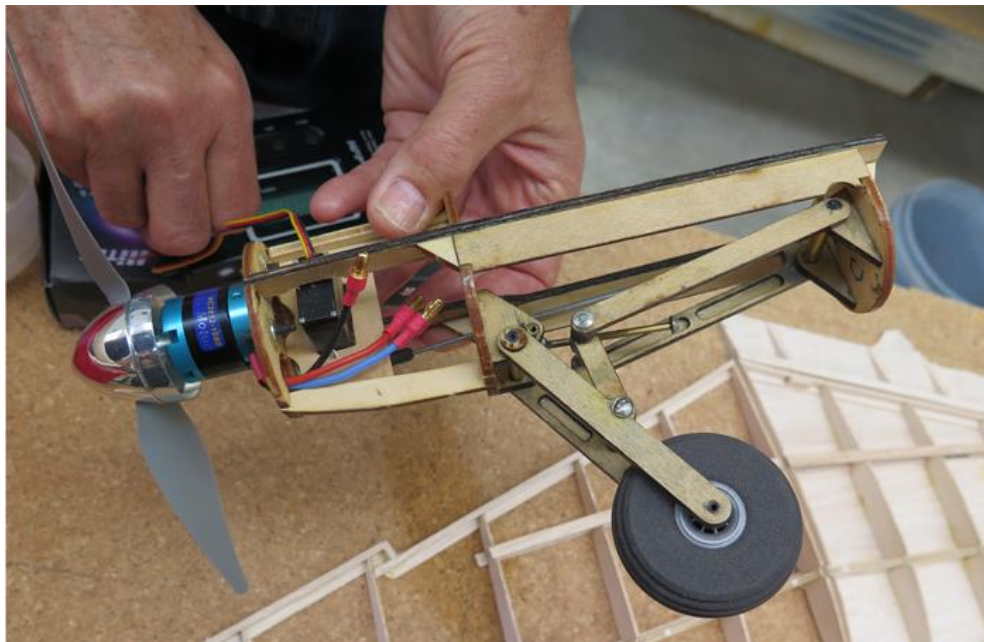
Looking forward to seeing you down at the field.

Happy Landings  
Pete.

# Remember A Time Before Health And Safety?



Unashamedly copied from the AVANZ News



Peter Chan from Model Flying Hawkes Bay showing his partially built electric kit Mosquito. Note that the retracts are built mainly of plywood!

*I shudder to think what some of our more industrious members will do with this idea. A Bee with retracts or opening doors maybe? Ed.*

Counting in binary is as easy as 01 10 11.

## AROUND THE CLUB



Norm Rodger's Lazy Bee with "Fieseler Storch" type undercarriage.



Peter Denison's beautiful big Hawker Typhoon built from plans and laser cut parts



Bazz overcoming the age old problem of how you transport your larger model Pitts to the flying site.



Gordon Hill's decision time. What to build next.



Peter Dennison's pylon modified E-flight Pulse.

Note the removal of the undercarriage, and in fact anything that would cause drag that was originally hanging from under the aircraft.

Note also the change in thrust line to enable the aircraft to make quicker turns to the left in line with the pylon racers motto.

**Pylon racers motto.**

**Go Fast  
Turn left!**



Baz with his latest Jet



Peter Dennison presenting new member Ian Mulquiney with his wings badge.



"Lady" pilot in the cockpit of Henny's little Pitts



My step-son just passed his commercial pilot's licence after only one days study. Well done. Ed.



Ian McEwan's (niece) SE5 after losing elevator control due to plastic horn breakage. A message here to all flyers! Check your control linkages more often and replace them, especially plastic as it goes brittle pretty quick! Ian's SE5 was 25 years old, so amazing it lasted that long!

I'm supposed to respect my elders, but it's getting harder and harder for me to find one now.

# So how big do you need your electric motor?

A extract from R/C Airplane World suggested by Ray Wood.

## The Watts Per Pound rule.

More of a 'rule of thumb' than a hard and fast rule, the **Watts per pound** rule is one that lets you determine the power output needed for your electric RC airplane, to give it the performance that you desire.

The rule relates to how many Watts (W) of power are needed per pound (lb) of airplane, and the approximate values range from 50W to 200+W. It's generally accepted that any plane with less than 50W/lb is going to struggle unless it has a very low wing loading. At the other end of the scale, a powertrain setup that's delivering 200 W/lb (or more) is going to mean you have pretty much unlimited ballistic performance!

### General power guidelines.

Here are some Watts per pound values that should put you in the right ballpark for your particular plane...

- Less than 50W/lb - very lightweight / low wing loading slow flyer.
- 50 to 80 W/lb - light powered gliders, basic park flyers and trainers, classic biplanes and vintage ('Old Timer') type planes.
- 80 to 120 W/lb - general sport flying and basic/intermediate aerobatics. Many scale (e.g. war birds) subjects suit this power band.
- 120 to 180W/lb - more serious aerobatics, pattern flying, 3D and scale EDF jets.
- 180 to 200+W/lb - faster jets and anything that requires cloud-punching power!

By working around those categories you should be able to decide how much power your airplane needs to perform well, but it has to be said that those values aren't set in stone. They are very good starting points though.

At the end of the day it all comes down to experimentation as far as actual performance goes; once you've decided on a suitable motor that is capable of delivering the required wattage, then play around with propeller selection;



increasing/decreasing prop diameter and pitch will have a big effect on how your airplane flies, but be careful to stay within the recommended range as stated by the motor manufacturer. Overpropping an electric rc airplane is one sure way to burn out the ESC because the motor is forced to work harder than it's designed for, and so it tries to draw more current than you calculated the ESC to handle.

Incidentally, a Watt is the correct unit to measure electrical power and Watts are calculated by multiplying the voltage (V) by current in amps, for which the proper symbol is 'I' but you'll also likely see it written as 'A'.

So,  $V \times I = W$  or  $V \times A = W$ .

If you're looking for the IC (internal combustion) equivalent, 1hp (horsepower) is equal to 746W.

### Using a Watt meter.

The only sure-fire way to determine how much power your particular



setup is producing is to use a Watt meter.

This useful little tool (actually *essential* if you do want to start experimenting with different EP setups) connects between the flight pack and ESC, and will give you various readings throughout the power range.

Simply connect it up and power up your plane, and read off how many Watts are being produced.

Above: an RC Watt meter is essential once you get in to doing your own electric power setups.

I got lost in thoughts. it was unfamiliar territory.

## Hibiscus Coast Radio Fliers Fees are now due for 2007/18

Type of Membership	HCRF Portion	MFNZ Portion	TOTAL
Senior	\$40:00	\$75:00	\$115:00
Family	\$40:00	\$80:00	\$120:00
Super-annuitant	\$35:00	\$75:00	\$110:00
Junior	\$20:00	\$20:00	\$40:00
Associate	\$40:00	Nil	\$40:00
New member joining fee	\$35:00	Nil	\$35:00 +

### Have you paid?

If not fees can be paid by Cash or check to club secretary or  
Direct debit to 12 3084 0191089 00 Please use **your name** and **NZMAA number** as reference.  
(Remember direct debit can take a while to process so please be patient.)

## Hibiscus Coast Radio Fliers Club AGM 2017

The 2017 AGM is to be held

At: Girl Guides Hall 45 Stanmore Bay Road, Whangaparaoa.

Date: 1 May 2017 at 7.30 pm.

**NB if you received a cup or award please return them to the Secretary by 3 April as they need to be engraved before the AGM.**

## For Sale

### 1/4 Scale Cub ZK-POM

Last seen flying at our open day

Motor 26cc Raobi.

Spare set of wings

Spare set of floats

Any offers.

Contact Noel Newling 09 421 0961



Sure, I'd love to help you out... now, which way did you come in?



Some photos from John Clark and others with comments that seem appropriate by Ed.



This is what happens if your engine bolts are too long and your plane stops suddenly!



Helping the pony club out with a bit of plumbing.



So then I would pull in full up and it would become inverted. It makes a great display.



Sign at café in Mangawhai



Frist aid! Something we all hope we don't need But still god to have handy.



I am not sure that is legal!

The last thing I want to do is hurt you... but it's still on my list.

# Spring Hill Club Visit

What a lovely day and a good time was had by all.



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## Last thought



What do you call a can opener that doesn't work? A can't opener.