

# ***Aerobat -***



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



***December/January 2018/2019***

**Issue Number 4 Volume 18**

# **CLUB** **INFO**

## **Web Site**

[www.hcrf.co.nz](http://www.hcrf.co.nz)

## **Contacts**

### **President**

Peter Denison

[president@hcrf.co.nz](mailto:president@hcrf.co.nz)

(09) 426-2455

### **Secretary/Treasurer**

Henny Remkes

[Secretary@hcrf.co.nz](mailto:Secretary@hcrf.co.nz)

027 441-1484

### **Club Captain**

Nigel Grace

[clubcaptain@hcrf.co.nz](mailto:clubcaptain@hcrf.co.nz)

027 420 3182

### **Frequency Officer**

Jim Hall

[jimh.geo@xtra.co.nz](mailto:jimh.geo@xtra.co.nz)

(09) 426-1478

### **Editor**

Ross McDonnell

[editor@hcrf.co.nz](mailto:editor@hcrf.co.nz)

021 216-0702

## **COVER PHOTO**

*Our President and  
Instructor presenting  
Gordon Hill with his  
wings badge.*

*Well done Gordon*

Photo by H Remkes

# H.C.R.F. Calendar 2018

**Our fixed flying times are every  
Wednesday, Saturday and Sunday morning**

Date	Day	Event	Where/When
1 Dec	Sat	Winch Gliding	Wainui 8.30 am - 12.00 noon
3 Dec	Mon	Club Night	Pinewoods Hall 7.30 pm 23 Marie Ave
19 Dec	Wed	Christmas Twilight	Wainui 5.00 pm
5 Jan	Sat	Winch Gliding	Wainui 8.30 am - 12.00 noon
30 Jan	Wed	Twilight 3	Wainui 5-00 pm
4 Feb	Mon	Club Night	Pinewoods Hall 7.30 pm 23 Marie Ave
6 Feb	Wed	Twilight 3 Rain Date	Wainui 5-00 pm
2 Mar	Sat	Winch Gliding	Wainui 8.30 am - 12.00 noon
4 Mar	Mon	Club Night	Pinewoods Hall 7.30 pm 23 Marie Ave
6 Mar	Wed	Twilight 4	Wainui 5-00 pm
13 Mar	Wed	Twilight 4 Rain Date	Wainui 5.00 pm



## **From the Editor's Desk**



Ho Ho Ho

Or as my granddaughter said, "Mommy, that fat old man just called me a ho three times.

Another year all but over and I haven't done half of my to do list yet. Mind you, sitting round this fine evening with a glass of "McLads finest amber liquid, I am amazed just how much has been achieved. The place is starting to look well cared for.

On the model front not so much. You may have seen Wander the Witch taking the first swim of the season on Halloween night. The down drafts sure do affect how she flies. She recovered with not much more than a cold and has now recovered completely.

Hope every thing is going well with you and yours and wishing all a great Christmas and New Year

Ross McDonnell and Ngaire Ladd  
Editor and Ex-Weather Witch

***Did you hear about the magic tractor that went down a road and turned into a field?***

# From the President's Desk

Well here we go again folks, Christmas is almost upon us. It must be the weather it's convinced me it's still winter as we had hail yesterday in Auckland and it's cold, windy and wet today, forcing us to cancel our Twilight this evening .

Anyway there's always next week rain date for the twilight and the good weather with its long lovely evenings will arrive in due course no doubt. We have our Christmas lunch organised by Henny and Carmel next weekend (as I'm writing this) so am sure those of you who went while reading this will be looking back on it with fond memories.

We have another Twilight on December 19th to look forward to so that will give us another chance to catch up with each other before the festive season is upon us again.

Hopefully the Pony club will have cleaned out their gear from our club room before then so we can organise it to suit ourselves. Though I think we will skip having bunk beds along one of the walls, wonder whose idea that was :-)

We have started work on the toilets that need tidying up somewhat. Recladding the walls were necessary mainly in the men's one (fitting a blast proof wall behind the loo). New roofing iron and repainting the insides should bring them up to a nice clean tidy state as they should be.

So another year goes by and so quickly from my point of view, obviously for that to happen I've been enjoying myself. Well it's hard not to in our environment isn't it? Our sport can be as challenging as we decide to make it plus having fun at the same time.

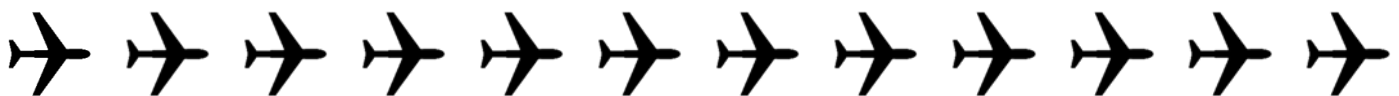
For me the Icing on the Cake folks is been able to work with my fellow committee members and editor.

Henny, Carmel, Nigel, Jim and Ross

So we wish you all a safe, wonderful Christmas and Happy New Year.

Happy Landings

*Pete Denison.*



***The first rule of looking good is, "Don't sneeze when somebody is cutting your hair!"***

# What Size RC Tank Should I Fit?

## Disclaimer.

The facts and figures presented here are gained by a search of the world depository of all human knowledge, the Internet. I worked on the theory that if three or more people said the same thing in a different way, then the facts were very likely to be right.

All figures have been rounded to one decimal place because I figured if you have to worry about point1 of a cc. or point one of a ml. then you are most probably running your tank size a bit small as you are not allowing for an overshoot and a go around.

These rules apply best to the high performance engines like 3w, da and mvvs. It falls short and over estimates with the lower performing engines (output per cc) like zenoh and conversions. For all that it seems to be a very good starting point.



## Approximate Fuel Consumption Rates @ Full Throttle For Most Commonly Used RC Aircraft Engine Sizes

2-Stroke Glow	4-Stroke Glow			2-Stroke Gas	4-Stroke Gas		
ci / cc	ci / cc	oz /min	ml/min	cc	cc	oz /min	ml/min
.10 / 1.6	.20 / 3.3	0.3	7	12	25	0.4	11
.15 / 2.5	.26 / 4.3	0.4	11	16	32	0.5	15
.20 / 3.3	.35 / 6	0.5	15	24	48	0.8	22
.25 / 4	.44 / 7	0.6	18	32	64	1	30
.30 / 5	.50 / 8	0.8	22	50	100	1.5	44
.35 / 6	.60 / 10	0.8	23	64	128	2	60
.40 / 6.5	.70 / 11	1	30	80	160	2.5	74
.60 / 10	.90 / 14	1.5	44				
.90 / 1.5	1.20 / 20	2	60				
1.20 / 20	1.60 / 26	2.5	74				
1.80 / 30	3.20 / 52	4.5	124				

## Size.

Do not use a tank that is too big if you plan to use muffler pressure because there will be a significant difference between mixture values at the beginning and end of the tank.

The sizes above are about right and provide a fair bit of reserve.

Somewhat smaller sizes can also be used if you are careful by not running too rich and/or limiting flight times, and/or not flying continually with full throttle.

The best tank sizes therefore depend somewhat on personal tastes.

Ross McDonnell Ed

*If stupidity was a disability, I know a few people who would get monthly cheques.*



## ***Just Another Day At The Office***

Retrieving Peter D's Waco. "I completely lost the signal so it just flew around until it hit the tree." *Yer Right Ed.*



And was it successful? No way

After all the effort the wind blew it down a couple of days later

***It's OK to be a nobody. Nobody's perfect.***



## **New Zealand's Richard (Bamboo) Pearse and his Monoplane**



Richard William Pearse  
Courtesy Geoff Rodliffe

Did Richard Pearse, the brilliant New Zealand inventor, beat the Wrights into the air? By the looks of it he may have been trying to build a Mars Rover as well. Strange resemblance there.

"On or about 31 March 1903 Richard William Pearse of Waitohi New Zealand, became airborne in a high-wing monoplane he designed and built himself. This aircraft, of prophetic design, was powered by an ingenious gasoline engine which he also designed and constructed.



It was not until 17 December 1903 that the Wright Brothers' took to the air at the Kill Devil Hills in North Carolina.

Though Pearse later conceded that the Americans deserved the honour of being the first to make a controlled and sustained flight, there seems to be a very good chance that Bamboo Dick Pearse got into the air under power before they did.

Pearse is recognized as the first man in New Zealand to lift off from the ground flying his home built powered aircraft.



Ken Buckley's indoor Pearse Flying Machine

It is debatable as to whether the aircraft was controllable because the controls were too close to the centre of gravity and ailerons only worked in the upward direction so therefore acted aerodynamically against the desired action. It is also debatable if with the rear wheels so far back the aircraft could have achieved rotation. Maybe a good bump in the road helped him with that.

Whether or not Pearse flew in any acceptable sense, and regardless of the exact date, his first aircraft was a remarkable invention embodying several far-sighted concepts: a monoplane configuration, wing flaps and rear elevator, tricycle undercarriage with steerable nose wheel, and a propeller with variable-pitch

blades driven by a unique double-acting horizontally opposed petrol engine.

He was compelled to work mostly in secret in order to avoid those who opposed him on religious grounds, and others who claimed that he was a lunatic in his attempts to build a flying machine. His achievements were even more remarkable in that, unlike the Wright Brothers who employed skilled engineers and who later enjoyed the luxury of American Government sponsorship, Pearse designed, financed, and built everything himself. And he did not even have access to a university or library, but gained his knowledge solely through reading the magazines that he subscribed to.

Usually Pearse taxied and 'flew' his aircraft using his own or a neighbour's paddock. However if the paddocks were wet Pearse would use the road running past the school and his farm.

***Thanks to [www.fiddlersgreen.net](http://www.fiddlersgreen.net) and Ray Wood for this interesting article.***

***Not even a mosquito gets a slap on the back until it starts working.***

# The World's Largest Weathervane

---

The World's Largest Weathervane, A Douglas DC-3 airplane sits on a pedestal in front of the Yukon Transportation Museum, where it was moved in summer of 2009.



The title of “The World’s Largest Weathervane” isn’t just a joke. Placed on a specially engineered pedestal in 1981, the plane slowly and silently pivots and move with the breeze, so that her nose is always pointing into the wind as if in a perpetual, never-ending flight. It only takes a 5 knot wind to turn her.

Bought in April 1946 by Canadian Pacific Airlines, the plane served as a military cargo plane, a civilian plane, and later as a “bush plane.” In truly Canadian style the plane was outfitted with skis so that it might land on remote snowy plains to deliver supplies. After logging 31,851 hours, the DC-3 flew her last flight in November 1970 and was donated to the Yukon Flying Club in 1977. Though the DC-3 has been downgraded to the status of weathervane, as far as the fate of retired planes go, flying forever into the oncoming wind is a pretty good last gig.



***Dictionary: A place where success comes before work.***



# The Comper Swift

---



Ross asked me to write a piece about the model I've been flying recently. It's a 1/6 scale version of a plane that was originally built in the U.K. and was designed by Nicholas Comper, a W.W 1 officer in the R.F.C. who stayed on after the war in the new R.A.F. becoming an instructor at R.A.F.. Cranwell. He was leader of the Cranwell Light Aeroplane club and designed a series of light aircraft, all built by club members.

He left the R.A.F. in 1929 and formed Comper Aircraft Ltd at Hooten Park, near Liverpool. The first Swift was powered by a 40 hp ABC Scorpion 2 cylinder engine, but later versions mostly had 90 hp 7 cylinder Pobjoy radial engines. Some had 120 hp Gipsy Major engines.

In all 41 were built, including one built in the 1980's from original drawings. Construction is mostly wood, with hundreds of metal fittings holding it all together. In common with most British light aircraft of that era, it had foldable wings. They became well known in the British air racing scene but were also a practical cross country plane for the well-heeled gent, having a reasonable luggage capacity. One was flown from England to Australia in 9 days in 1934, before touring Australia and being shipped back.

My model depicts an Australian Swift, owned by Roy Fox who bought the remains in 1997 along with 7 spare Pobjoy engines. It was shipped to J.E.M. Aviation at Omana for rebuild where it eventually flew late last year. It has since been shipped back to Australia.

The model was scaled up from a reduced size plan in "Flying Scale Models" April 2004 and is reasonably accurate in outline. The motor is a Turnigy SK 3 2836 1500 kv and prop is a 7 x 4. This has heaps of power and the model flies well with no trimming needed on its test flight. Wing span is 1200mm and weight ready to fly is 1125 gm. Aileron control is a bit slow and rolls need some help with rudder.

Construction is balsa and ply with film covering. The dummy engine was built up with round balsa cylinders stuck to a rolled ply tube of about 50mm diameter forming the crank case in which the electric motor is mounted. Exhaust manifold is built up from balsa and cylinder fins are simulated with string wrapped around them.

David Kilsby

*Experience: The name men give to their mistakes.*



# AROUND THE CLUB



Big discussions going on about IC motors.  
This one belongs to Norm Burns, one of two he bought off Ray Wood. He very kindly donated the proceeds to the club funds ?? Note it is made out of corrugated plastic.

*Photo Henry R.*



Oh no, not another Bee?  
"We will convert the world of modelling." Ed



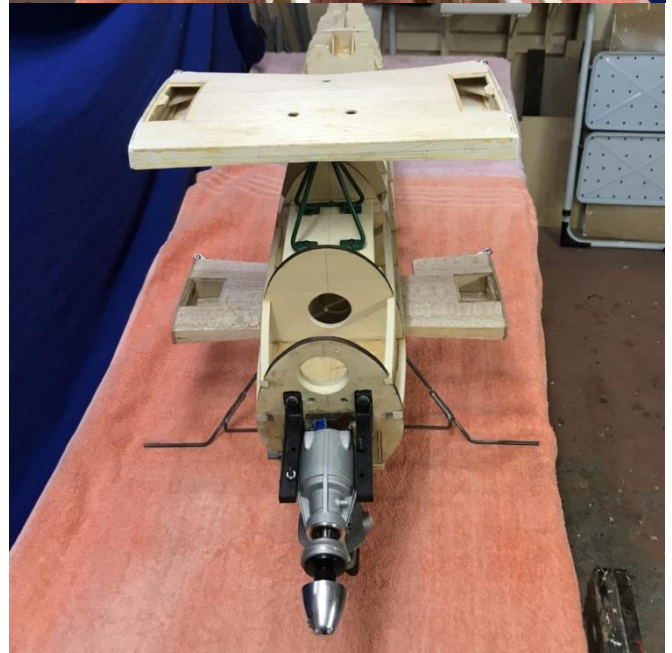
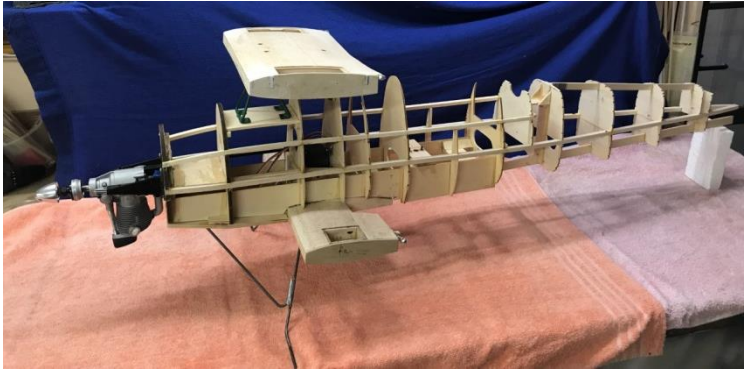
A mid-morning break at the new club house on a fine sunny Wednesday.



*The best thing about good old days is that we were neither good, nor old.*



# **FAIREY SWORDFISH UPDATE** *By Peter Denison*



Managed to fit some building time between decorating (painting ) inside our house after 16 years .Just made the top centre wing section, while it was reasonably fresh in my mind after just finishing the bottom one. They are similar but with the modifications to accept the folding wing hinges .

I will finish off the leading and trailing edges when I've made the outer wings .Thinking the tail section will be next so I can work out the pull-pull controls before sheeting in the fuselage.

Its turned out to be an interesting project for sure



Stan Somerfield with his beautiful Keilcraft rubber powered Spitfire.

*I will never forget my dad's last words: "Will you stop playing with that bow, Nicholas?!".*