

# Aerobat



February/March 2014

Issue Number 6 Volume 4

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**Cover Picture**

RNZAF Bristol Freighter  
Number 06  
3 Squadron  
NZ5906  
1952 to 1991

From the days when  
New Zealand had an Air force.

Fuselage now in use as a motel  
unit at Woodlyn Park, near  
Waitomo Caves.

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## From the Editors Desk



Happy new year to you and yours!

I hope you have made all your new years resolutions and are well on the way to starting your goals.

My new years eve went well as Ngaire and I were at the Nationals at Craireville. We had lots of party, a helicopter display at 11pm and of course then the pulsejet flew twice, once to see the old year out and once to see the new year in. The only problem was that competitions started the next day at 7am.

Speaking of the Nats, next years is going to be closer to home at Matamata early in the new year so I hope to see some of our club there.

You don't have to be good to enter as in one pylon heat a few years back I came first as the other three planes crashed on take off.

I meet a man who was in his 70's who had been flying for 6 years and came third in novice aerobatics.

How about giving it a go next year. After all you have a whole year to practice.

Keep those articles and photos coming in by Email

*Ross McDonnell*

Editor  
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I'm not saying let's go kill all the stupid people....I'm just saying let's remove all the warning labels and let the problem sort itself out.



# Just Photos As I didn't not get many photos this time



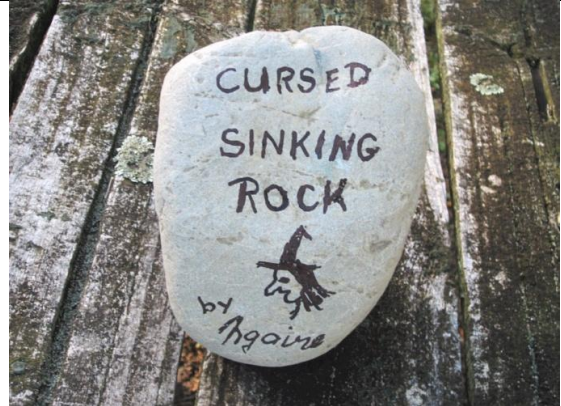
Now that's a big Bee



Don't know who he is but you have got to admire the guy. That's a lot of balsa.



Ngair's entered the boat race for the club.



Ah the witch at work again stopping cheaters.



Not a bad view first thing in the morning. Nats site.



And you thought the coffee was bad at your work. The coffee van at the campsite flying field.



This is what happens when the rubber band breaks. Stan Sommerfield's free flight model.



The V1 catapult launch glider just waiting for the pulse jet. Built by Wayne Drinkwater and rebuilt and flown by Purdy Aeronautics Unlimited.

# Aircraft Trimming Chart

**Notes:**

- 1) Trim in calm conditions.
- 2) Make multiple tests before making adjustments.
- 3) If changes are made, go over previous steps and verify or readjust as necessary

To Test For	Test Procedure	Observations	Adjustment
<b>1. Controls neutral</b>	Fly model straight and level	Adjust the transmitter trims for hands off straight and level flight	Adjust clevises to center transmitter trims
<b>2. Control throws</b>	Fly model and apply full deflection of each control in turn	Check the response of each control	*Aileron Hi-rate: 3 rolls in 4 seconds. *Lo-rate: 3 rolls in 6 seconds. *Elevator Hi-rate: to give smooth square corner. *Lo-rate: to give a loop of approx. 130' dia. *Rudder Hi-rate: approx. 30-35 degrees for stall turns. *Lo-rate to maintain knife edge flight.
<b>3. Decalage</b>	Power off vertical dive. Release controls when model is vertical (elevator must be neutral).	A. Does the model continue straight down? B. Does the model start to pull out (nose up) ? C. Does the model start to tuck in (nose down)?	A. No adjustment B. Reduce incidence C. Increase incidence
<b>4. Center of gravity</b>	Method 1: Roll model into near vertically banked turn.  Method 2: Roll model inverted.	A. Nose drops B. Tail drops C. Lots of down elevator required to maintain level flight D. No down elevator required to maintain level flight, or model climbs	A. Add weight to tail B. Add weight to nose C. C. Add weight to tail D. D. Add weight to nose
<b>5. Tip Weight (course adjustment)</b>	Fly model straight and level upright. Check that aileron trim maintains wings level. Roll model inverted, wings level. Release aileron stick	A. Model does not drop a wing B. Left wing drops C. Right wing drops	A. No adjustment required B. Add weight to right tip C. Add weight to left tip
<b>6. Side Thrust</b>	Fly model away from you into any wind. Pull it into a vertical climb (watch for deviations as it slows down).	A. Model continues straight up B. Model veers left C. Model veers right	A. No adjustment needed B. Add right thrust C. Reduce right thrust (move thrust line left)
<b>7. Up/Down Thrust</b>	Fly model on a normal path into any wind. Parallel to strip, at a distance of around 100m from you (elevator trim should be neutral as per test No.3). Pull into a vertical climb & neutralize elevator.	A. Model continues straight up B. Model pitches up (goes towards top of model) C. Model pitches down (goes towards bottom of model)	A. No adjustment needed B. Add down thrust C. Reduce down thrust

<b>8. Tip Weight (fine adjustment)</b>	<p>Method 1: Fly model as per test No.6 and pull it into a reasonably small dia. inside loop (1 loop only).</p> <p>Method 2: Fly the model as per test No.6 and push it down into an outside loop (1 loop only &amp; fairly tight).</p>	<p>A. Model comes out with wings level</p> <p>B. Model comes out right wing low</p> <p>C. Model comes out left wing low</p>	<p>A. No adjustment needed</p> <p>B. Add weight to left tip</p> <p>C. Add weight to right tip</p>
<b>9.(a) Aileron Differential Method 1:</b>	<p>Fly the model towards you, before it reaches you, pull it up into a vertical climb. Neutralize controls, then half roll the model</p>	<p>A. No heading changes</p> <p>B. Heading change opposite to direction of roll commands (ie. heading veers to models &amp; your left after right roll)</p> <p>C. Heading changes in direction of roll command</p>	<p>A. Differential OK</p> <p>B. Increase differential</p> <p>C. Reduce differential</p>
<b>9.(b) Aileron Differential Method 2:</b>	<p>Fly the model on a normal pass and do 3 or more rolls</p>	<p>A. Roll axis on model center line</p> <p>B. Roll axis off to same side as roll command (ie. right roll, roll axis off right wing tip)</p> <p>C. Roll axis off to opposite side of model as roll command</p>	<p>A. Differential OK</p> <p>B. Increase differential</p> <p>C. Reduce differential</p>
<b>10. Dihedral</b>	<p>Fly model on normal pass and roll into knife-edge flight, maintain altitude with top rudder (do this test in both left &amp; right knife-edge flight)</p>	<p>A. Model has no tendency to roll out of knife-edge flight</p> <p>B. Model rolls in direction of applied rudder</p> <p>C. Model rolls in opposite direction in both tests</p>	<p>A. Dihedral OK</p> <p>B. Reduce dihedral</p> <p>C. Increase dihedral</p>
<b>11. Elevator alignment (for models with independent elevator halves)</b>	<p>Fly model as in test #6 and pull it up into an inside loop. Roll inverted and repeat the above by pushing it up into an outside loop</p>	<p>A. A. No rolling tendency when elevator applied</p> <p>B. Model rolls in same direction in both tests</p> <p>C. Model rolls in opposite direction in both tests</p>	<p>A. Elevators are in correct alignment</p> <p>B. Elevator halves misaligned. Either raise one half or lower the other half</p> <p>C. One elevator half has more throw than the other (model rolls to the side with the most throw). Reduce throw on one side or increase throw on the other</p>
<b>12. Pitching in knife-edge flight</b>	<p>Fly model as per test no. 10</p>	<p>A. There is no pitching up or down</p> <p>B. The nose pitches up (the model climbs laterally)</p> <p>C. Nose pitches down (model dives laterally)</p>	<p>A. No adjustment needed</p> <p>B. Alternate cures:</p> <ol style="list-style-type: none"> <li>1. Move the CG aft</li> <li>2. Increase wing incidence</li> <li>3. 3 Add down trim to ailerons</li> </ol> <p>C. Reverse the above</p>



# MODEL AIRCRAFT PUBLIC FUN DAY

Proudly Sponsored by Hobby City

Sunday 23<sup>rd</sup> March

10am to 3pm

Wainui Pony Club Field

Wainui Road

Silverdale



Free Admission  
Plenty of Parking  
BBQ Sausage Sizzle  
Hot & Cold Drinks  
*No Dogs Please*

Contact  
[www.hcrf.co.nz](http://www.hcrf.co.nz)  
Wayne (09) 426 8584  
Nigel (09) 420 3182

Photo Courtesy Roger Shearer

## Check for Alzheimer's — (You knew there had to be one!)

The following was developed as a mental age assessment by the School Of Psychiatry at Harvard University.

Take your time and see if you can read each line aloud without a mistake. The average person over 40 years of age cannot do it!

1. This is this cat.
2. This is is cat.
3. This is how cat.
4. This is to cat.
5. This is keep cat.
6. This is an cat.
7. This is old cat.
8. This is fart cat.
9. This is busy cat.
10. This is for cat.
11. This is forty cat.
12. This is seconds cat.

Now go back and read the third word in each line from the top down to see if you passed!

# My Little Tomahawk

By Dave Dean



I don't remember for how many years the Tomahawk Airsail kit has sat on the top shelf of my work shop. Not too long ago I decided it was time to put it together. After leafing through the instruction manual and perusing the plan, I ended up very confused. Even though I have built a number of planes from plans I could not see how to proceed. When I shared my frustration with fellow member Alan Ladyman, he paid a visit to the work shop and the mists cleared.

The fuselage is made up of two halves and this is further complicated as the plan must be turned over and treated with oil in order to see the lines from the other side.

Progress has been slow lately and I hope that by sharing this experience my motivation will be sparked in order to complete the project before too long.

Note the size of the motor box kindly fabricated by Alan Ladyman.



## Specifications

Brand of electric motor:  
Turnigy 420 KV  
G46 14inch prop.

Wingspan:  
1830mm.

Weight all up  
3.2kg including  
radio and engine.

Designed for  
5 channel radio  
control (incl. flaps).

# OLD TESTAMENT COMPUTING.

## How it all started

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In ancient Israel, it came to pass that a trader by the name of Abraham Com did take unto himself a young wife by the name of Dorothy. And Dot Com was a comely woman, broad of shoulder and long of leg. Indeed, she was often called Amazon Dot Com.

And she said unto Abraham, her husband, "Why dost thou travel so far from town to town with thy goods when thou canst trade without ever leaving thy tent?"

And Abraham did look at her as though she were several saddle bags short of a camel load, but simply said, "How, dear?"

And Dot replied, "I will place drums in all the towns and drums in between to send messages saying what you have for sale, and they will reply telling you who hath the best price. The sale can be made on the drums and delivery made by Uriah's Pony Stable (UPS)."

Abraham thought long and decided he would let Dot have her way with the drums. And the drums rang out and were an immediate success. Abraham sold all the goods he had at the top price, without ever having to move from his tent.

To prevent neighbouring countries from overhearing what the drums were saying, Dot devised a system that only she and the drummers knew. It was known as Must Send Drum Over Sound (MSDOS), and she also developed a language to transmit ideas and pictures - Hebrew To The People (HTTP).

And the young men did take to Dot Com's trading as doth the greedy horsefly take to camel dung. They were called Nomadic Ecclesiastical Rich Dominican Sybarites, or NERDS.

And lo, the land was so feverish with joy at the new riches and the deafening sound of drums that no one noticed that the real riches were going to that enterprising drum dealer, Brother William of Gates, who bought off every drum maker in the land. Indeed he did insist on drums to be made that would work only with Brother Gates' drumheads and drumsticks.

And Dot did say, "Oh, Abraham, what we have started is being taken over by others."

And Abraham looked out over the Bay of Ezekiel, or eBay as it came to be known.

He said, "We need a name that reflects what we are."

And Dot replied, "Young Ambitious Hebrew Owner Operators."

"YAHOO," said Abraham.

And because it was Dot's idea, they named it YAHOO Dot Com.

Abraham's cousin, Joshua, being the young Gregarious Energetic Educated Kid (GEEK) that he was, soon started using Dot's drums to locate things around the countryside.

It soon became known as God's Own Official Guide to Locating Everything (GOOGLE).

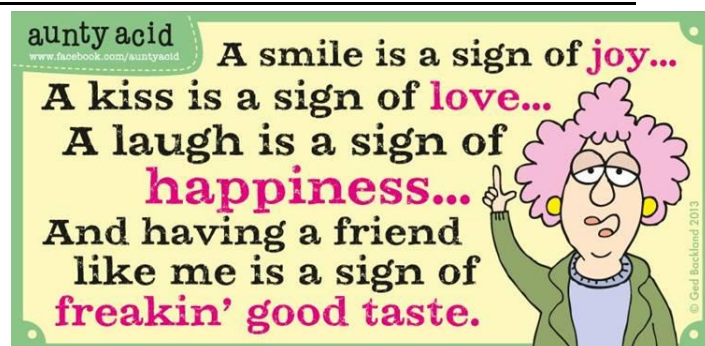
That is how it all began. And I swear it to be the truth.

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## TWILIGHT EVENTS 2014

### REMINDER

Twilight 3	Wednesday 5 February	5pm till dark
3 Rain date	Wednesday 12 February	5pm till dark
Twilight 4	Wednesday 2 April	5pm till dark





## From the Presidential Suite



May I start by wishing all of you who I haven't seen recently a Happy New Year!!

Well here we are at the start of yet another new and potentially exciting year, I know in a previous ramble I banged on about the merits of ready to go foam models. How misguided was I?? On new years day I opened up a nice traditionally built kitset, and started gluing and have done so every day so far this year, and it will be glow powered to boot. There is much to look forward to this year, we have our long awaited gliding comps, the hay has been cut so we can get out the bungees and winches, I secretly think I know who the top glider guiders will be. We have our ever popular Open Day to plan for and I think how can we better the year before? We always

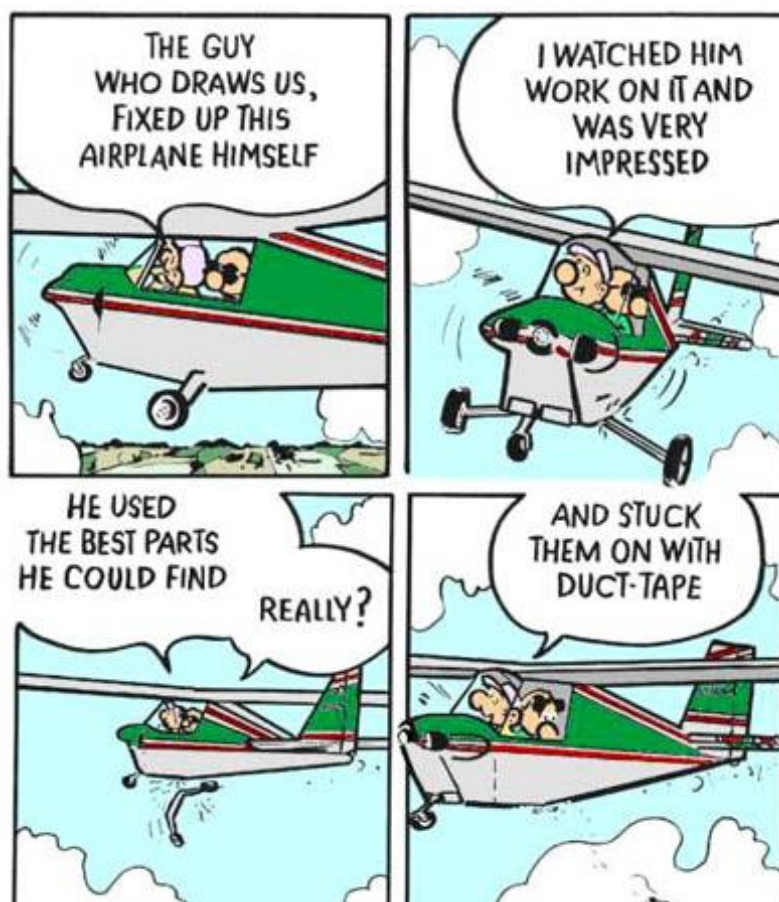
seem to come up trumps and have something new and different to present to the gathered visitors, last year we had a mass BEE launch, and quite a few Trojans airborne at once, so lets watch this space!

I have decided to take a rest from being club President from our forthcoming AGM this year , I have enjoyed the role but after almost 3 years I feel its time to let someone else take over, I have a very busy year ahead what with holidays, and other clubs I belong to are requesting more of my attention .

So please give some thought to standing for this and any other position within the club which may become available.

Sorry to finish on a sadder note but some of you will be aware but Richard Lloyd had an accident on his farm quad bike recently and received some serious injuries, lets hope he heals quickly.

**Wayne Drinkwater**  
**President H.C.R.F.**



## H.C.R.F. Calendar 2013 - 2014

Date	Day	Event	Where/When
29 January 2014	Wed	Cross Country Practice	Wainui Pony Club
3 February 2014	Mon	Club Night	Whangaparaoa Guide Hall 7-30 Pm
5 February 2014	Wed	Twilight 3	Wainui 5-00 Pm
12 February 2014	Wed	Twilight 3 Rain Date	Wainui 5-00 Pm
16 February 2014	Sun	Wainui intro Open Day	Wainui Pony Club
1 March 2014	Sat	Wainui day	Wainui Pony Club
2 March 2014	Sun	Wainui day	Wainui Pony Club
3 March 2014	Mon	Club Night	Whangaparaoa Guide Hall 7-30 Pm
23 March 2014	Sun	Open day	Wainui 8-00 am
2 April 2014	Wed	Twilight 4	Wainui 5-00 Pm
6 April 2014	Sun	Wainui Mini ODE	Wainui Pony Club
7 April 2014	Mon	Club Night	Whangaparaoa Guide Hall 7-30 Pm
5 May 2014	Mon	Club Night & A.G.M.	Whangaparaoa Guide Hall 7-30 Pm
2 June 2014	Mon	Club Night	Whangaparaoa Guide Hall 7-30 Pm
22 June 2014	Sun	Mid year Christmas	To be advised 12 Noon

## Twas The Week After Christmas

*Twas the week after Christmas and all through the house  
Nothing would fit me, not even a blouse.*

*The cookies I'd nibbled, the eggnog I'd taste.  
All the holiday parties had gone to my waist.*

*When I got on the scales there arose such a number!  
When I walked to the store (less a walk than a lumber).*

*I'd remember the marvelous meals I'd prepared;*

*The wine and the rum balls, the bread and the cheese  
And the way I'd never said, "No thank you, please."*

*So--away with the last of the sour cream dip,  
Get rid of the fruitcake, every cracker and chip*

*Every last bit of food that I like must be banished  
Till all the additional ounces have vanished.*

*I won't have a cookie--not even a lick.  
I'll want only to chew on a long celery stick.*

*I won't have hot biscuits, or corn bread, or pie,  
I'll munch on a carrot and quietly cry.*

*I'm hungry, I'm lonesome, and life is a bore --  
But isn't that what January is for?*

*Unable to giggle, no longer a riot.  
Happy New Year to all and to all a good diet!*

## Happy new Year