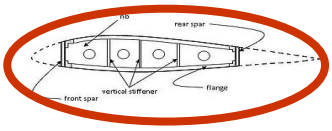
# The Spare Rib News




***The monthly newsletter of the Kapiti Aeromodellers Club***

***August 2021***

www.kapitiaeromodellersclub.org.nz

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## *The Presidential Scribe*

Winter has been with us of late.
Lots of rain and cold mornings and windy days, interspersed with some great flying weather.
On such days, activity at the club has been pretty busy. We've seen a few new models out and about, some old favourites make a return and James, celebrating 21 years with a massive increase in plane size (see article).
He wanted to go bigger, but the van wasn't big enough!

Looking forward we have the next couple of club nights sorted but need some ideas for October/November.
August club night had a great turnout, but the Silver Fox BBQ was on a miserable day with just the hardy souls in attendance. Even so, lies were spun, tales told, and the world put to rights.

Facebook group. We've now established a Kapiti Aeromodellers FB group, rather than just the FB page.

# Kapiti Aeromodellers Club Group

Feel free to join us.

Enjoy the month ahead.

Cheers,

Steve.

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## *Coming up.*

***Static display of models at the Club on Spade Aid day***.

The area to be planted this year is around our club house driveway and the area behind the clubhouse.
The strip will be closed whilst planting is being done, but I'm wanting to put on a static display of models. We will need models and members to supervise. A great opportunity for some free publicity.

Be prepared. I'll get some more info out shortly.

There is still the aim to have the park grazed from (probably) about September onwards.
Steve.

## *Club Nights.*

### ***August***

Will see the return of the extremely popular quiz night, hosted by Alistair Haussmann.

### ***September***

Will be the Andrew and James show.

## *The Aviator Experience - Tauranga Airport*

*A couple of years ago, Neil Upton gave us a great presentation on his real 'Spitfire' experience.*
*No doubt many of us were envious of what he had achieved. A boyhood dream.*
*However, there is another way – as Gordon Wood tells us.*

My bucket list has long included a flight in a genuine WW2 Spitfire, which is indeed available in both NZ and the U.K., but I could not justify the expense to my wife!

Fortunately, and fortuitously, whilst searching online for a Spitfire Flight Experience, I stumbled across The Aviator Experience based at Tauranga Airport which fair city I just happened to be planning to visit recently. BTW, other warbird experiences, including modern fighter jet simulators, are also available.

Realistic cockpit

Please refer to their website below for further information.
Initially, I made contact with Craig Saunders, the genius behind this activity, and wasted no time in booking a 90-minute session.

Not so realistic plane

Craig spent 8 years with the RNZAF as an avionics technician and holds a pilot's licence.
After a minimal amount of paperwork, and a detailed 10-minute intro from Craig, it remained for me to don the virtual reality headset having eased myself and strapped into the rather tight replica Spitfire Mark9 cockpit which contained full and authentic "Spitty" instrumentation and controls.
It's incredible to acknowledge the fact that WW2 pilots spent up to 4 hours in this small space. Also, that most "apprentices" only received around 4 hours of actual flying experience before being dispatched in earnest.

Initially under Craig's instructions and guidance, it was time to "fly" trying to remember everything I had just been taught, including the layout of the important controls and instruments, whilst at the same time obeying VFR (Visual Flight Rules) as each time I looked down at the instruments I had a tendency to lose control of the aircraft, with the obvious results!

Gordon hard at work

For beginners, it is best to commence your experience in the air, whilst you get used to the handling and "feel" (literally!) of the aircraft. Landings, take-offs, aerobatics, dogfights, formation flying, recovering from a spin and crash-landings, after the engine "dies", are just some of the exciting treats in store! My flight commenced at 10000 feet above the white cliffs of Dover escorting inbound friendly bombers returning from a raid over Germany.
**Even for someone who has modest experience flying radio-control** model planes this "hands-on" flying was absolutely amazing, incredible and extremely realistic.

After multiple crashes, all admittedly due to "pilot-error", including landing in flames, and forgetting to maintain a nose-up position upon landing resulting in many smashed props, Craig jokingly reckoned I had caused some $3 million in damages to my reusable aeroplane, and had I been a cat I am certain that I would have used up all of my 9 lives!

Towards the end of my session, I was getting the hang of things, and would dearly love to return to Tauranga in order to sharpen up my act. Indeed, one of Craig’s regulars has been enjoying weekly sessions for quite a while. He frequently flies in formation with Craig, and sometimes they engage each other in dogfights.

Full-time pilots have also waxed lyrical about the experience, particularly in the jet simulator, where landing and taking off from a carrier deck is an added attraction. That one is definitely on my bucket list!

Craig obviously has not only immense knowledge and experience but considerable patience with not only his wayward pilots, but the time needed to "reset" the computer in order to continue. He can also arrange to "freeze" the action should the pilot need to take a break. Pilots have admitted to feeling queasy as a result of some of the manoeuvres undertaken, such as aerobatics and dog-fights, and adrenalin levels have matched reality.

All kudos to Craig and his team of behind-the-scenes colleagues: I couldn't stop grinning from ear to ear for the entire day, having started at 0900 hours.

Finally, you can bring your family, friends etc. into the hangar where they can take a seat and watch everything on the screen, even if they claim not to be interested in participating.
Oh, I almost forgot: At $169 for the 90 minute experience in my humble opinion it's fantastic value for money, and I recommend you take the longest flight option available: The shortest starts at 45 minutes for $109. Enquire about senior discounts. One more thing, he is happy to arrange group parties, which can include outside caterers.

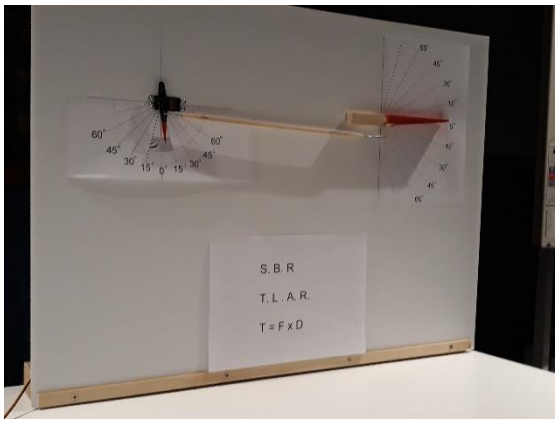
www.theaviator.co.nz

Gordon Wood.

# *July Club Night.*

July club night had Andrew and Don talk to us.

Don gave us a most enlightening talk on the mechanical relationship between servo arm and control horn. The mechanical setup can change the behaviour of the model completely if got wrong and although a lot of us would know these things, the way Don explained them made it very easy to understand. You can never learn too much about these things.




Of great help was the board Don made up.
This had a working servo with degrees marked and a control surface, also showing degrees moved. So, it was very easy to see the relationship between the two. With a couple of interchangeable control arms Don was easily able to show what changed what and also the effect of sloppy connections.
Don has left this board in the clubhouse if want to study it.

So… What about SBR etc?

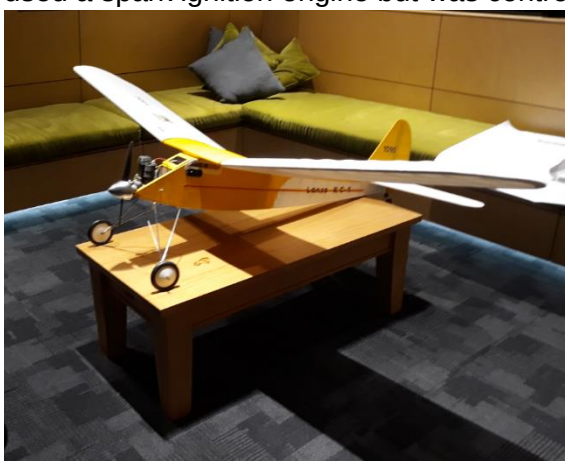
- **S.B.R.** – **S**he'll **B**e **R**ight.
- **T.L.A.R - T**hat **L**ooks **A**bout **R**ight. Bit more experience needed than she'll be right but similar approach
- **T = F x D.** Torque is the product of a force applied at a distance… therefore
  **T**orque = **F**orce x **D**istance , Use some maths to calculate force.

Andrew talked about his recently repaired Focke Wulf. We have seen this model before, but Andrew took us over how he went about repairing it after a big nose-over at Warbirds, which smashed off the tail section and broke the wing tips. This led to an in-depth discussion on how the rear section is built in the first place and the difficulty of fitting internal controls for the elevator around the retractable tailwheel.

Unfortunately, Andrew had left a couple of things behind he was going to talk about, but he builds such a great scale model there was plenty of interest and many questions.
I was very interested in how he had internally built the controls for elevator in a small space, as I have a similar challenge in the Pitts.
The next day I hot footed it around to have a chat with Andrew.
Out of that conversation I learned that Andrew had built a replica of the tail assembly, with all parts BEFORE committing to the model and tested to destruction.

Also, at club night we had a couple of recently completed members models. Terry Beaumont brought along his recently completed RC1 Vintage model. This is believed to be the oldest RC design in existence. It was a very early design from Chet Lanzo.

Terry built from a plan downloaded from Outerzone. Terry gave us a run down on the design which used a spark ignition engine but was controlled using a spark-gap transmitter using a Model T coil.



It was an intriguing story, and if you want to read more about it, you can find it on the Outerzone website:-
Oz : RC-1 plan - free download (outerzone.co.uk)

John Ellison brought along his recently (or nearly) completed Super Aero Master. A Great Planes kit. Powered by a 61 OS 2 stroke. Wingspan about 53 inches. As with many planes of Johns, it's impeccably built, but built over a longer period. I believe he started this build when he lived in Whitby.

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## *A model shop in town:*

Hobby City have opened an outlet in Wellington.
Capital Gateway Shopping centre
Thorndon Quay.
Alistair Haussmann visited recently and said it was still in the throes of being setup.
It will be great to have something local again.

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## *Pre-flight checks:*

Glorious day for flying on Saturday the carpark was overflowing and it was the highest attendance I've seen for a long time. Was a great day's flying. Good to see so many members out enjoying themselves.
Unfortunately, there was one ooopsy, that I heard … never saw it (I was in the air at the time), as one model hit the dirt. Almost made it to the strip but also almost made it to the carpark as well… reason for the crash, aileron lead not plugged in. Trainer type aircraft with one servo driving both ailerons. Pilot managed to partially control aircraft after take-off using the rudder but soon ran out of sufficient control resulting in a crash. This was totally avoidable.
I've been over this before, and I can't over emphasise it. A basic pre- flight control surface check which takes less than 30 seconds to do and that's a lot faster than any rebuild I've ever heard of, would have saved the plane.

Before taking off, **every time**, please check that all control surfaces are working smoothly and in the correct direction. It's as easy as that. You may see the experienced pilots do this every time. Get into the habit! Go through all the control surfaces systematically. Up, down, Left Aileron, Right Aileron, Left Rudder, Right Rudder, Throttle.  Done.

Fly safe… Don

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# 363 – Another 'DELTA' variant.

Like me, you have maybe wondered if all those really old dusty model magazines in the club house every get looked at. Well, I can tell you that at least one of them has been …

The **June 1968 Radio Modeller** featured a plan/article by Peter Russell for a .40cu. In. powered delta model the "363 – a three cornered flying machine". I read the article and was taken by the novelty of the shape yet the seeming simplicity of the design and construction. What could be simpler – no fuse or horizontal stab to construct and an easy shape to cover in film. I was sold!!

The A4 plan in the magazine was enlarged to full size by The Print Room in Paraparaumu.

Cutting out the ribs came as a shock … the central ribs are h u g e - 1 sheet of 3mm balsa = 1 rib. Obviously, they get smaller as they move to the tip but together with all the 1.5mm L.E. and T.E sheeting it seemed to consume a surprising quantity of balsa. Construction is quick and easy using the suggested 50 x 25 timber slats as a jig. Wherever possible I stuck to the original design: Ailerons and elevator are simple 3mm flat sheet balsa (with strengthening), single aileron servo w/- bell-cranks and linen thread sewn hinges. Biggest issue encountered was achieving an acceptable balance. The original 363 had huge chunky old (i.e., heavy) linear servos but even positioning all the gear as far back as possible only gave the forward most recommended CG position. The model is covered in cheap Chinese iron-on film (ex AliExpress) that went on great and produced a nice finish- no problems.

The model recently completed two test flights, both more eventful than I would have preferred. First take-off was uneventful and after adding quite a bit of down trim (too much reflex on Elev) the model was a pleasure to fly. Speed was quite impressive; Aileron response is sharp while elevator not so much – typical of a delta I believe. However, without warning the motor went from full noise to dead stop at the northern end of the strip. I was at a reasonable height for a normal dead-stick landing, however by mid-downwind I had to turn in as I wouldn't have made it over the sand hills. Only just making it over the fence, an across wind and across-the-strip landing was made. I expected to run into the safety fence but as luck would have it the model shot under the fence and hit the table sustaining minor L.E. damage. Bugger!

The 2nd flight was initially more uneventful than the first and I was coaxed into a low pass for photos, but at about 50' above the southern threshold the motor stopped suddenly again leaving me with no option but a very high-speed landing. Full up elevator didn't produce the necessary flair and a huge (was it record breaking?) bounce followed before the landing was complete.

The lessons learned are: - Deltas fly different. They are quick, have excellent aileron response but elevator is not that great and if the motor stops it is even worse. (Article recommends 1/3 power and nose high landings). Rudder is ineffective. Orientation wasn't the problem I expected it to be.

My 363 is ready to go again– I have loaded 20g of lead in the tail to move the C.G. back and increased the throw to, hopefully, improve the Elevator response. Can't wait …..

Span: 1245 mm Weight: 1.890 Kg (4lb 2oz)
Motor: OS40FSR (last run 7/1995 What sort of person keeps a record of this stuff!!!)

Lastly, Deltas ARE different and certainly make a statement in the air.

*Neil Upton.*

# *James has a new beast.*

**CARF Extra 260 - Yellow Taxi**

I came about the Extra on Facebook, having asked if anyone had a big 3m size model they wanted to sell.

Up comes the legendary and well known CARF (composite ARF) Extra 260 in the Yellow Kiwi Scheme. It looked good, so I went to look at it in Auckland and see my brother at the same time.

I was happy enough with it and decided I was having it. I found out the seller was driving way down south in a big empty van. So, rather conveniently, he was able to take the aeroplane down with him.

The Extra was designed between 2003-2005, possibly earlier. To my knowledge, two prototypes were given to Frazer Briggs and Jason Shulman and developed in conjunction with several other of the world's most experienced IMAC pilots.

CARF-Models used the learnings and customer feedback from their older design SuperXtra and previous, so it's not the oldest model they've designed.

Frazer Briggs brought home the Extra 260 prototype for some testing following the 2005 Tucson Aerobatic Shootout and noted that after eight years of flying their design and built 260, the CARF Extra 260 tracked and snapped a lot better and needs minimal rudder to aileron mixing.

The 260 is designed for IMAC and precision flight. Wings and stabs are aligned very axially, the secret of every neutral flying plane. They are reasonable stretched in wingspan – almost like a modern F3A design, as CARF mentions.

It's also notable in years past for its 3D freestyle performance, which I can attest to.

When I got a hold of it, we had to do a bit of work on it. Most of the gear was all there and ready to go but needed a bit of refurb and tidying.

We needed to install our radio and power loom, get more powerful aileron servos... Futaba 74kg/cm.

One of the selling points for me was the super powerful DA-170 engine in it which is massive for this model. The model was designed for the DA-150 at the time.

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### *FREE to a good home.*

Warren tells me some items have been taken off his hands, but there is still some more. This received from Warren:-

I still have some bits and pieces to give away including a 2m span glider / slope soarer (Gentle Lady, fuselage + wing). Fuse is fibreglass, this needs a fin/rudder and horizontal stab/rudder. I also have for sale a serviceable Dremel moto shop scroll saw (110 volt version and step down transformer is included). Has a sanding disc and flex drive for fine detail grinding etc. I also have some replacement scroll saw blades for the saw and I have replaced the switch as the original switch failed. These saws are good for accurate cuts of balsa, light ply etc. Asking $50, the saw is ready to use. Buyer to collect

from me in Churton Park if there is any interest. I have updated to some Proxxon gear and a commercial Makita scroll saw so the dremel is surplus to requirements. Even have a user manual for it somewhere!

If you are interested, Warren can be contacted on: 04 4787782 or tathamwt@gmail.com

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### *Clipped Wing Cub.*

Last month, Ross advertised his damaged Clipped Wing Cub, free to good home.

Jamie Lafrentz snapped it up and is well into repairs. The model has been completely stripped.

Don would say, “fly hard, land soft”.

Have a great month.

*Steve.*

*And that's it from me for this month.*

Another great Kapiti day.