

# ROTORUA MODEL AIRCRAFT CLUB (INC)

## August 2021 NEWSLETTER

Secretary Andy Watson

Email: [top.place@xtra.co.nz](mailto:top.place@xtra.co.nz)  
Ph 07 357 5656



<b>Sub for the 2021 - 2022 year RMAC are</b>		<b>MFNZ</b>	<b>TOTAL</b>
<b>Family</b>	<b>\$120</b>	<b>\$100</b>	<b>\$220</b>
<b>Senior</b>	<b>\$115</b>	<b>\$95</b>	<b>\$210</b>
<b>Junior</b>	<b>\$45</b>	<b>\$30</b>	<b>\$75</b>
<b>Associate</b>	<b>\$115</b>		<b>\$115</b>
<b>(member of another club with current MFNZ membership)</b>			
<b>Social non flying</b>	<b>\$50</b>	<b>-</b>	<b>\$50</b>

**Payment can be made to ANZ account # 116102\_ 0913131\_11 Include your name in the details**

### **Welcome to the August 2021 newsletter.**

As usual the last month has been a mixed bag weather wise. We've had a few good days with good turn outs and plenty of flying.

Sadly we learnt of Allister's passing at the start of the month. There will be a memorial service at Osbornes on the 27<sup>th</sup> at 2pm

Good to see Dave Bailey and Mark Daubney coming over for a fly.

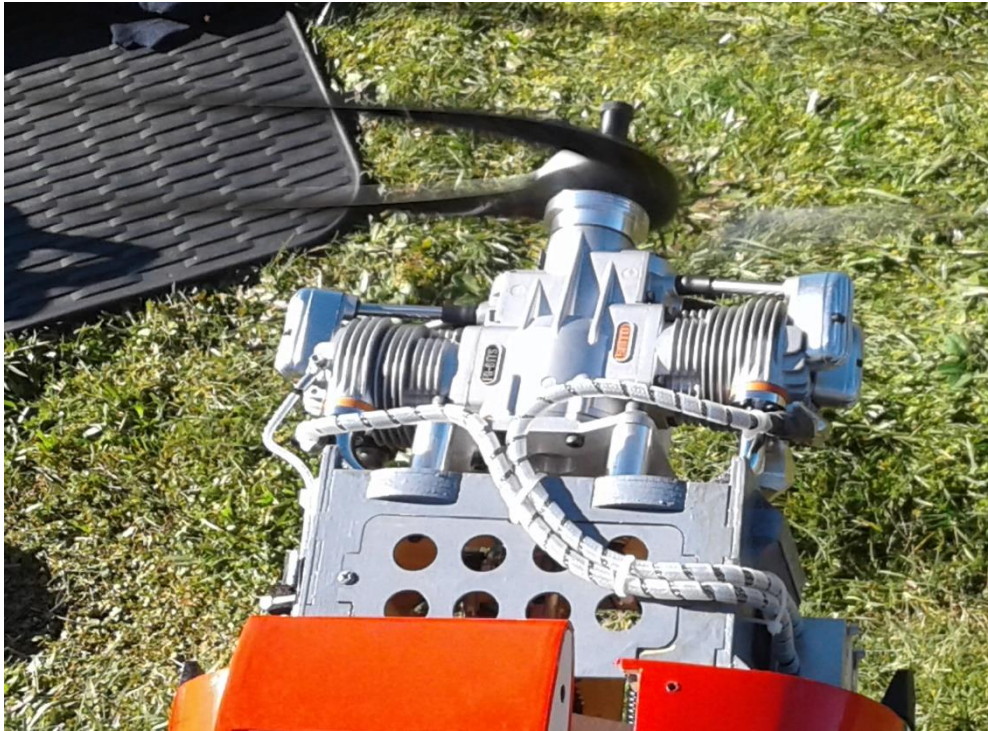
Congratulations to young Josh who passed his wing test flying the great Tyro Major!

Rays Pitts has now been run in and the cowling is now back on. Its worth having a look at the ducting Ray has installed to get plenty of air through the cooling fins. The first flight is now waiting for the rain to stop and the wind to drop. Can't wait to see it go.

Remember to keep those models tied down in the pits. We recently had an electric job bolt out of the pits all by itself luckily it nosed over before any disaster occurred.

Vintage enthusiasts will be out in force this month as both Duration and Precision are NDC events this month. Always good fun these NDC vintage events are simple and a great way to test your ability against the rest of the country.

Tom, Neal and Dave have been having plenty of action with their drones. FPV is becoming very popular as is video recording flights. Neal as put some very interesting clips on the clubs facebook site. Worth a look



Rays Twin cylinder Saito going through the running in phase in the new Pitts .

As usual Ray has done an immaculate job of the radio installation





Here is Andy Hoskins with his Aces Flying Stick OS 40FSR up front and Futaba radio



Dave Baily with his PT19 and DH 82 Tiger moth

The Tiger goes very well with a 4 stroke up front. Very realistic and smooth a delight to just to sit back and watch and soak up the atmosphere.

The PT 19 has a brand new OS 46 and after running in had its first flight on the 23<sup>rd</sup> After an exciting few moments of retrimming it settled down and Dave reported it to be a very pleasant aircraft.

Dave has a couple of Babe Bees that are now running again and is threatening to get into Vintage 1/2A Texaco. Get cracking Dave because there is a NDC event for /2A in September! Dave L and John R hope to fly so hope you can join us.



Fast Andy trying to keep warm between flights of his rocket ship



Recently seen at the field Mark Daubney with his XCub

Now this model is very smart with electric start

Mark has provided some details about the model

The model is a Scale model of the Cubcrafters XCub. The full size XCub is classified the fastest, strongest, best equipped and most capable STOL airplane CubCrafters has ever built.

Hanger 9 created this model of the XCub under official licence from Cubcrafters. Additionally you can get bush wheels and undercarriage as extra. I have the standard Wheels and undercarriage that come with the kit.

It has a 116" or 2.94 Meter wingspan and enormous presence in the air. Not totally sure of the weight, I think around the 11Kg mark. I have powered it with a DLE 55 rear exhaust, swinging a 23X8 wooden propeller, which offers more than enough power.

When reviewing this model they mentioned you would need approx. 500 grams of weight in the nose, for the selected motor, so instead of weight I added an electric starter motor. Funny the starter motor ended up weighing just on 500 grams so worked out well. and is really awesome to see it self start.

I have had this plane for about 2 years and it surprises me every time I fly it, granted I only have around 5 flights with it. It is a pleasure to fly, however you need to remain alert, especially with the amount of throws I have.

Whilst it is also designed for towing gliders and comes with a retractable tow release, I have not fitted it.

I'm running a JRX11 radio with a 12 channel, multi satellite receiver with 2 Li-po batteries for the receiver, 1 for the ignition and 1 for the starter motor, running high voltage servos all round.

All flying lights are functional and are connected to the ignition switch, so ignition on, lights on.

The pilot is Woodie and he always has some smart comment, the wise ass.



Another model back in the air

Montys superb Mustang seen in the pits recently

## From the Pres

This month we lost another active RMAC member to old age. Alistair Laing who had been in hospital for a number of weeks, sadly died at the age of 86 years. Alistair joined the club about three years ago and tried hard to master RC flying. Unfortunately, he could not shake off his full-size flying reactions and found it difficult to transition to controlling a plane from outside the cockpit. I believe he did enjoy his RC experience but latterly he became frustrated that he was not making the progress he wanted and hoped for. I have two memorable recollections of Alistair during my tutoring experience with him.

The first was when the model had gone down close to the deep stream on the North side of the field. From extending ladders and corrugated iron sheet we built a ford across the stream to recover the model. I was just carefully crawling back when there was an almighty splash behind me. Alistair had decided to help and had fallen off the ladder. He was up to his chest in water (this was at the age of 83) and it took all of my effort to recover him and get him onto the bank. I dried him off and gave him some spare clothes which I had in the van.

The second was when the model was flying nicely in wide flat circles and I was complimenting him on his good piloting. Eventually the model started to move away and I suggested he bring it back. It then became apparent that the model was doing its own thing and was actually free flying. We watched it disappear from view in the direction of Tarawera and Alistair literally waved bye-bye to it.

Obviously, we drove down to the landing in the hope it may have come to earth or maybe someone had seen it fly over but to no avail.

Next day I received a call from the fire officer at Humphries Bay on the far side of Lake Tarawera. A friend of his had seen it land in the lake just offshore, and they saved it up from what would have been a very watery grave. The flying distance must have been 10km downwind from the field. We never did find out what had caused the loss of 2.4ghz control, everything worked fine when bench tested and the battery had lots of charge. The model was not flown again and is probably still in Alistair's store room.

I shall miss Alistair, he was an interesting character, bought all the right gear (and some) and had a good sense of humour.

To keep the runway grass at a good length the club has a mowing roster, ably managed by Dave Little. Currently the number of members on the roster means that the cycle is only three weeks and we need more volunteers to extend the cycle time. Sitting on the zero-turn mower is not that onerous either, all you have to do is turn a key and move the two joystick controls. If you use the field, please consider volunteering for the roster and either speak or email Dave Little.

Following is the first two pages from an interesting article in RCME. Part two next month.



**FOR THE HELL OF IT!**

# OPERATION ORBIT

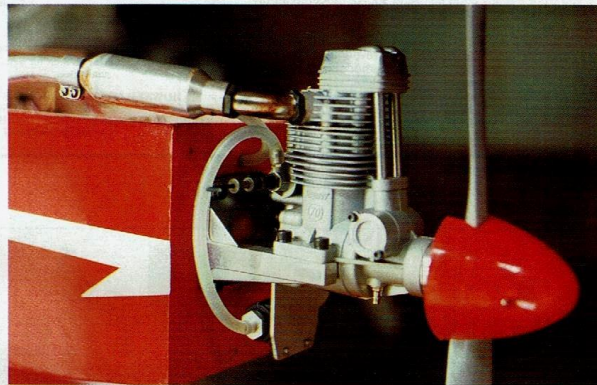
**IN 1992 JOHN CRAMPTON FLEW A MODEL AEROPLANE NON-STOP AROUND THE ISLE OF WIGHT - A TREMENDOUS ACHIEVEMENT THAT HAS BEEN PRACTICALLY UNREPORTED....UNTIL NOW!**

*The OS 70  
Surpass proved  
more than  
adequate to fly  
the 14 lb model.*

The idea of flying a radio controlled model seaplane round the Isle of Wight while following in a power boat at about 30 knots had appealed to me for years. Whittling up the model would be no great problem but the availability of a suitable chase boat never seemed likely, until, in the Summer of 1991, Barry Stobart-Hook of Seaview told me over a pot of ale that he'd cast his Company (Vosper Thornycroft) adrift and had started on the busy business of retirement. Furthermore, he had invested in a Sunseeker 31 (a gorgeous high speed cruiser powered by two 200 horse power, six cylinder, supercharged diesel engines each driving contra-rotating props) and, being the thoroughly splendid old chum that he is, he invited me to drive it. While doing so at nearly 40 knots he yelled at me: "This is the chase boat we'll use when you've built a model to fly round the island." That did it. I began to ponder. I went into deep brown studies. My wife thought I was going deaf, but by the end of August '91 I had done the General Arrangement drawing. The way to do it was firmed up. The scheme had jelled.

It is 59 miles around the Isle of Wight as the seagull flies. Barry's Sunseeker cruises happily at 30 knots. So, if I built a model that would cruise at that speed, the job would be done in a touch under two hours.

While dutifully accompanying my Beloved to the local Supermarket I noticed row upon row of nicely designed and made plastic orange juice containers, two litres capacity - and more, 2.27 litres. The perfect fuel tank! Samples of both were bought, the contents drunk, cleaned out and they sat on my work bench while I stared at them. The smaller held four pounds and the larger, five. The smaller would do - installed in the fuselage on its narrow side, tilted slightly nose up so that there was virtually no change in its fore and aft C of G position between empty and full - perfect! The fuselage was designed around it although I did make the fuselage just wide enough to take the 2.27 litre container, you just never know. With the wing platform above the tank the rest is artistry - tail feathers a sensible way aft (with a bigger than usual fin and rudder to



cater for the de-stabilising effect of the floats) and the engine, a four-stroke for economy, ditto forward. Then Lady Luck appeared in the extraordinary guise of Mick Charles (former World Champion aeromodeller). It is at his Establishment in Surrey where I buy my aeromodelling materials. When I went there with my shopping list in the Autumn of 1991 I told him what was afoot and he said: "...then you'd better have these floats." He offered me a pair of highly suitable and most beautifully fashioned fibreglass floats that, he said, he'd made several years ago and for which he had no further use. "They are yours," he said. I was, what's the word? - gob-smacked! It was an act of pure kindness. He refused to take any money and flatly turned down my offer to borrow or even rent them. "Take 'em," he said. "they're yours." I drove home in a dream, first dear old Stobart-Hook and his boat and now Mick Charles. Hmm.

## WEIGHT WATCHING

As the winter weeks slipped away I gradually built up the fuselage striving to do at least one creative job per day. I exercised the greatest economy in structure weight. Balsa longerons were used and the fuselage's torsional strength is derived from thin, very thin, balsa sheet, then sanded even thinner. The prospect of carrying, at take-off, four pounds of fuel concentrates the mind wonderfully on saving structure weight. I had to use hard wood and three ply doublers down by the float attachment points in the fuselage to spread the heavy loads and also forward at the engine bearing bulkhead but elsewhere balsa, balsa, balsa.

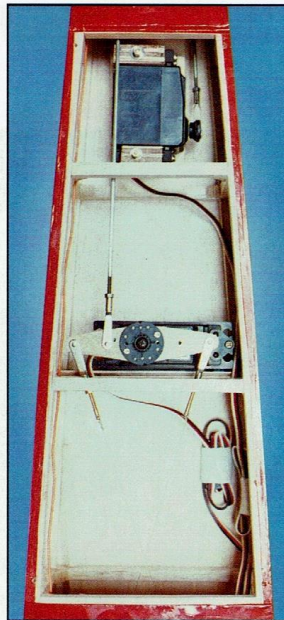
In the forward fuselage went the receiver, large battery (1.6 ampere hours) and throttle servo. In the aft fuselage are the elevator and rudder servos, the latter also operates the water rudders (by a closed loop nylon line) that I had added to Mick's floats. The airframe is covered with Solarfilm and it is this material, when reinforced,

that I used for the flying control surface hinges - frictionless, no end-play, no air leak between aerofoil and control surface, and finally, cheap. Means were provided for carrying a twelve ounce, radio operated, automatic Canon 35 mm camera looking down and aft between the floats. This is mounted immediately aft of the fuel tank, hence the step in the fuselage side elevation. The camera was not carried on the island flight, (a) to save weight and (b) to save electricity.

I built the wing in 1989 for quite a different aeroplane, the vectored thrust Aeropter - which forms no part of this project but if interest appeared in RCM&E very recently - volume 41 issue 4) The Aeropter was built to fly very slowly so I added half span slats to the leading edge to delay the stall. True, the slats might be a bit draggy in the cruise but they'd be invaluable on the Orbiter during take-off and landing when small seaplanes are sometimes bounced into the air by a wave and then find themselves in semi ballistic flight and that's dangerous: a wing-tip

#### AND SO TO THE MAIDEN...

Four or five knot breeze just rippling the water on a nearby lake. One pound of fuel on board, no camera. Head into wind, stick right back, slowly open the throttle and the seaplane rose from the water like it was made of anti-gravity material, even before the throttle was fully open. Nice handling, no problems, trimmed to fly 'hands off' at about half throttle. Very very gently a stall was induced but to little effect, no wing drop. A-OK. After 30 minutes the power was reduced and she descended. Downwind leg, cross-wind, a turn into wind, throttle back to fast idling, wings level, start rotating about ten feet up, hoooooold it, the floats touched and the seaplane slithered to a walking pace; taxi back to the shore. Ooooooh, what a relief! I nearly frightened myself to death on the second take-off. I released the back pressure on the stick too early and the seaplane did not like it AT ALL. It lowered its nose and zig-zagged violently. I slammed the throttle back - and the aircraft and I took a moment or two to calm down.



The elevator servo is at the top with the rudder servo below showing the nylon lines running to the water rudders.

(BELOW LEFT) Those lovely floats kindly donated by Mick Charles. Note the rear facing camera port.



can then so easily stall if the stick's pulled back too sharply; it is then that the slats would pay big dividends.

By March 1992 the bird was built and rolled out for its initial engine run which was very confidence inspiring, lots of lovely power! A fuel consumption test indicated that one pound of 'Dynamio' (plus 5% nitro) would last about fifty minutes. Two further tests showed: (a) a shift of only half an inch in the aircraft's C of G between a full and an empty tank, and (b) that the Perry Series 88 Oscillating Fuel Pump worked like a dream. For those not acquainted with this unit let me quote from the instructions: "...each time the engine fires it reacts with a short rotation in the opposite direction to the propeller's rotation. It is this movement which causes the pump to operate." And so it does, provided it is attached to the engine and mounted about one and a half inches from the crankshaft centreline and ninety degrees to the crank.

Clearly, this seaplane needs full up elevator all the way to unstick (not all seaplanes do).

The second attempt at the second sortie went well - with two pounds of fuel on board. On April 10th the third sortie was flown with three pounds of fuel - no apparent increase in take-off distance, at full throttle the bird just flies. This time I was lucky enough to be in a speed boat which normally tows water skiers and so five minutes into the flight I bought the model down low over the water and we formed on it. "How fast are we going?" I yelled at the driver. "Thirty three miles per hour," he replied. Super!, roughly 30 knots. Just the job. The weather was still, quiet and sunny. Barometric pressure was high and steady. I telephoned Barry Stobart-Hook on the Isle of Wight. "It all looks A-OK for the morrow," I said. "Great," said he, "meet you at the old Car Ferry slip, Portsmouth Harbour, 0800 hrs." That's the sort of mate to have. I put the transmitter and receiver batteries on charge and retired early.

#### THIS IS IT!

Saturday, April 11th, up at 0400 hrs., health giving breakfast and into my workshop. I went through that aeroplane with a fine tooth-comb. This, that and t'other was checked - even to narrowing a weeny gap in the inlet valve tappet. All nuts and screws tightened to taste. The batteries were well up; I kept a graph of their charging rates and my digital voltmeter told me all. The aircraft, starter battery, tools, fuel and spares were loaded in my car then I kissed my sleepy wife who wished me luck and at 06:30 hrs. I set course for Portsmouth. A perfectly beautiful sunny Spring morning.

By 0800 I was at the rendezvous point and so was Barry in his super-boat. He told me I could wipe that silly grin off my face because there were great rolling fog banks out in the Solent and he'd had a hell of a job getting to Portsmouth from Cowes where his boat is berthed - also he wanted to top up with fuel.

The large fin and rudder bearing the name of John's Phantom company.

## COMING EVENTS

August                    NDC Vintage Precision  
                                 NDC Vintage Duration  
September                NDC 1/2A Texaco

### CLUB FUEL

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\$? PER LITRE

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