ROTORUA MODEL AIRCRAFT CLUB (INC)

November 2023 NEWSLETTER

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http://www.rotoruamac.org.nz/wordpress_Z

Welcome to the November 2023 newsletter

Another mixed bag of weather with a couple of excellent days flying over Labour weekend. Friday was an almost perfect day with a large gathering. Another new model took to the sky. This time it was Ray with his electric ducted fan model. All went well until the landing when a gorse bush on the fence line caused an unplanned termination of flight.
There was very little damage and the model will be back in the air soon.
Sunday saw more challenging conditions. However it was still quite flyable. We had a visitor from Tauranga George Charleson. George had two models a Sig Kadet powered by an ever reliable OS FP 40 which handled the conditions well.

George with his Kadet assisted by dad Tim

Georges other model an electric machine. Both flew well.

Class R: E-RES 2M New Glider Class

This new glider class was detailed in the latest Model Flying World. Basically it is a duration event for 2m electric gliders with rudder, elevator and spoilers. An engine must be stopped after 30secs or on reaching 300ft altitude. Having an electric 2m glider all I need is a cut out which is readily available. However being an Arduino tinkerer the challenge of building a cutout to fit between the receiver and ECS was pure adrenaline. Initial attempts soon had a working prototype but alas once the back below 300ft the engine would fire up again if the 30secs weren't up. NBG! With a little editing of the

programming the problem was solved.

Another Wings Pass

Thursday Nov 2 saw another Wings test passed. Congratulations to Graham Christmas who achieved his Basic Power Wings.
The model flown was a 30 year old Tyro Major with an OS 25FP up front. The wing is covered with nylon something we don't see much of these days.

A Sparky In the air

Another new model seen in the air recently is a mixture of a Flying Aces fuselage with a pylon wing mount and Coronet wing and tail feathers.

The interesting thing about this model is that it has a genuine 1940s Jensen Channel Islands Special petrol spark ignition 10cc engine.

New Club Website

We now have our new website up and running you can find it here

https://www.rotoruamac.org.nz/wordpress_Z/

There is the usual information, links to old newsletters and links to several useful sources of information.

The mid weekers had a hack at the gorse at each end of the strip recently. Thanks to those that came out.

Recently Tim acquired a RV4 complete with an OS 46FX. Unflown for about 10yrs it was soon readied and has been regularly flying ever since.

Grahams Timber wit Radio Link R/C

Graham has recently acquired a timber and is enjoying it

Colin has been running in the new YS- 61 on his aerobatic model. The finish on this model is excellent and well worth a look.

Christmas B-B-Q

The annual Christmas B-B-Q will be held on December 17 at the strip.

Colin with new YS-61 Curare

Button Man

Well Xmas is closing in quickly now and still our flying weather hasn't settled much. However the keen flyers are gaining good experience at handling the windy conditions and timing take-offs during the calm spells, and the landings, well.....is there enough fuel / battery left until the next calm spell! Dead stick in turbulent conditions is not good. All good adrenaline pumping stuff.

Nevertheless this shouldn't put off any one of our members from coming out for a social catch up anyway, it's OK to leave that model at home and bring out a thermos of coffee instead, and don't forget about the Xmas barby .

Random stuff....

Starting

To start a glow engine, a direct current of around 3 amps and 1.5 volts is applied to the plug from a "glow plug igniter" or "glow driver", powered by a high current single cell rechargeable battery, or a purpose-built "power panel" running on a 12VDC source.[3] The current heats the platinum filament, causing it to glow red hot, hence the name. The engine is then spun from the outside using a manual crank, built-in rope-based recoil starter, spring-loaded motor or purpose-built electric motor, or by hand, to introduce fuel to the chamber. Once the fuel has ignited and the engine is running, the electrical connection is no longer needed and can be removed. Each combustion keeps the glow plug filament hot, which along with the catalysis of methanol oxidation by the platinum, allows the ignition of the next charge in a self-sustaining power cycle.[4][3]

The rechargeable battery may be of NiMH, NiCD, Li-ion, or lead-acid type. The higher fully-charged voltages of lead-acid (2.0) and Li-ion (4.2) cells, if applied directly to a regular 1.5 volt glow plug, will cause it to burn out instantaneously, so either a resistor of the proper value and wattage, or a high-power germanium transistor's base/emitter junction (in a series connection with one of the plug's terminals) can be used to limit the current through the plug to an appropriate level. Even with an appropriate power input, glow plugs can burn out at any time, and hobbyists are encouraged to carry spares.[5]

Technically a glow plug engine is fairly similar to a diesel engine and hot bulb engine in that it uses internal heat to ignite the fuel, but since the ignition timing is not controlled by fuel injection (as in an ordinary diesel engine), or electrically (as in a spark ignition engine), it must be adjusted by changing fuel/air mixture and plug/coil design (usually through adjusting various inlets and controls on the engine itself.) A richer mixture will tend to cool the filament and so retard ignition, slowing the engine. A leaner mixture produces more power, but the engine is less well lubricated, which can cause overheating and detonation. This "configuration" can also be adjusted by using varying plug designs for a more exact thermal control. Of all internal combustion engine types, the glow plug engine most resembles the hot bulb engine, since on both types the ignition occurs due to a "hot spot" within the engine combustion chamber.

Glow plug engines can be designed for two-cycle operation (ignition every rotation) or four-cycle operation (ignition every two rotations).[4] The two-cycle (or two-stroke) version produces more power, but the four-cycle engines have more low-end torque, are less noisy and have a lower-pitched, more realistic sound.[5]

FOR SALE

Thanks to several generous donations to the Club we have a couple of 46 size beginners models for sale. These are complete with servos have been set up test flown and only require a receiver and battery pack.
There are also a couple of other models, Futaba servos and Futaba Fasst receivers
Various fittings and nuts and bolts.

For more details on any of this gear contact

Any Committee Member

COMING EVENTS


AUCKLAND SCALE DAY
January 28th 2024 Gates Open at 0830
NSMAC Green Road Dairy Flat Auckland
Sponsored by Hobby City
SPONSORS
CONTACTS

North Shore Model Airplane Club

After the success of its last Vintage Day, the North Shore Club is pleased to announce that it will hold a further two Vintage Days next year.
All dates and wind-dates are Saturdays.

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3rd February 2024
Wind date 10th February 2024

13th April 2024
Wind date 20th April 2024