



The News Letter of the Hobart Model Aero Club Inc. January 2015

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News letter Editor

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Jason's latest toy



Some info about my Sebart Mthos 50e for those that are interested

ESC is a Castle Edge 100amp which has full data logging capability and a multitude of tuning features once hooked up to a laptop.

Motor is a Scorpion 4025-12 440kv currently spinning a 17x10 APC.

Servos are Hitec all round, Digitals on Rudder and elevator. Just> standard analogue low profiles on the Ailerons, name brand digital low profiles were almost 5 times as expensive, in case you were wondering.

I fitted it with a basic Hitec Telemetry kit (the SS-Blue) with amps, volts and two temperature sensors (ESC and Battery) which I initially planned for an FPV setup but thought it would be interesting on this. After exactly 10mins of flying the 6S 5000mAh packs were depleted to 3.8 volts per cell, which is exactly the storage value for Lipos! Yes Nils I am sure you could still jump start your car after a flight! Packs only ever reached 32 deg C and ESC 38 in flight and 40 after landing (no cooling) from the Telemetry data. Nils calculated maximum watts at WOT was 2000w or just under 3hp. From downloaded data from ESC (see attached graph), max current was 94amps and 2150 watts, so pretty close Nils with your field maths! Average in-flight current draw was a lazy 17.5amps for basic aerobatics and I expect it to rise a little as I get used to flying a pattern schedule. The Mythos flew perfect on half throttle and has plenty of vertical on just above half throttle. Full throttle not really required for any part of the flight. Landing was easy after figuring out that two clicks of throttle controls the descent and have the prop act as a brake. It is a very slippery model.

Now I just need to learn how to fly pattern!

Regards, Jason Bedelph

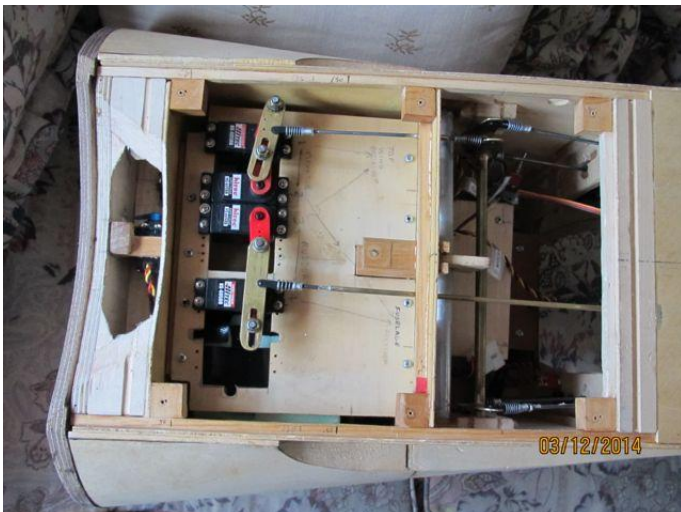
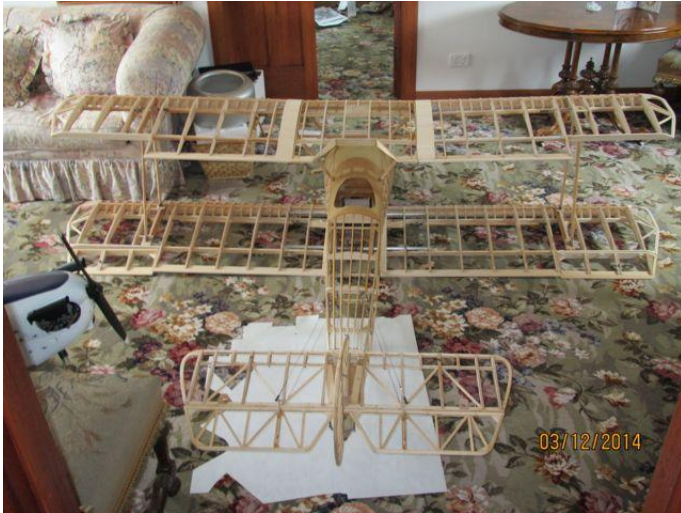
Progress On Keith Drew's Sopwith Pup

Believe it or not I started the build some 10 years ago and due to a rather busy life at that time I stopped building after a year only part way through. I had retired in 2000 from my full time job in Melbourne and returned to run our farm that meant I was once again busy. Five years ago we sold the farm and my Nissan Patrol flat tray that was the only way of getting my planes to the field. About 3 months ago I decided it was about time the build started again and also it was time to buy a vehicle that could carry my planes (just about to happen at long last).

The start of the project was the purchase of a Balsa USA kit that comprised a big box of spruce , redwood and balsa strips and sheets and most of the wing ribs pre-cut as well as 3 bulkheads plus some ply wing tips to be laminated. A spun cowl in aluminium was also included. Seven large plans were included that after examination were unfortunately only good for the basic shape. I made the decision to not use the fittings supplied and wherever possible make it closer to scale including the structure.

As you can see from the photo the task is progressing and I am targeting March as the completion time. The framing is basically complete with the radio gear installed and the control surfaces connected. A photo of the servos for the elevator and rudder control wires is shown plus the engine throttle servo with the bottom front cover removed from the body. You will note that there are 2 servos for the elevator and rudder controls connected by a bar driving the control wires, each servo in the pair has it own independent receiver/battery receiver system and if one system was to fail then the elevator or rudder can still be operated at a reduced amount by the other. The servos driving the ailerons in the top and bottom wings are also on independent receiver/battery systems so in total there

are 3 independent systems (6 receivers) to minimise the chance of loss of control. Getting the wires from the front servos to the elevators required a secondary transfer shaft as shown in the photo that at least reduced the effective length of the dual control wires and allows the correct exit point for the elevator wires. There will be 3 dozen turnbuckles aircraft for the various adjustments.



One of the reasons for back up systems is that the front of the body ahead of the pilot is covered with aluminium and there is also nearly solid metal engine up front so receivers placed at various places is not a bad idea. The other reason is that there is a hell of a lot of my time and money up there so a back up on all flying controls only leaves me as the reason for any incident.

The decision to change the engine from the Saito 55cc 5 cylinder to the Evolution 99 cc 9 cylinder became a pain in the neck. I could not access the area behind the front bulkhead and the fuel tank had to be increased in size so a rebuild of this area was necessary. Fitting the 9 cylinder McDaniel glo-driver and battery (5000 milliamp hour) in the nose under the servos was a tight squeeze.

I am at the stage of fitting the flat wire and strut rigging. The flat wires are load bearing and will no doubt be a reason for me to be at the field earlier than usual to rig the wings. The fittings will be to scale so a lot of work is ahead of me.

I am also going to build a scale steel oval tube operating undercarriage (another deviation from the plans) that may take me a while.

The building of the 1/3 scale Vickers machine gun (see photo) it took some time searching the web for good photos to make the operating mechanism and the fittings. I still have to make the bullets and the

ammunition belt as I have not been able to find a source. The attachment of the gun to the body also needs to be made. The gun sight required some fine machining in the lathe and then it was fiddly doing the silver soldering. The gun has turned out a bit heavy unfortunately.

The cockpit dash panel is basically complete (see photo) and is based on a kit that I purchased from England and then modified. The fitting out of the cockpit is being left until all else is complete so I can retain easy access to the body for final adjustments to control wires etc.

The more I think about it there is still a lot to do to achieve the March completion. At least with the vehicle I can get back to flying again while I continue the build.

Keith Drew

For Sale FMS Fox Glider



Fox Glider Features:

Brushless outrunner motor •40 amp ESC •4 x mini servo •Aileron, Elevator, Rudder and Throttle

Wingspan: 2320mm •Length: 1290mm, requires 2200x3 cell lipo

\$100.00 See Stuart