



The News Letter of the Hobart Model Aero Club Inc. October 2017

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Jottings

It was surprising to see our Newsletter editor arrive at the field with an electric powered delta wing as Stuart is an ardent scale enthusiast.

It was even more surprising to see the model try to fly backwards off the hand launch. It seems to be wise to check all connections after working on a model!

Nevertheless, after rectification, the model performed very well and will keep Stuart on his toes.

Interesting to see that former members Erwin Boot and Joseph Ortuso have re-joined this year.

Perhaps we may see them down at the field soon.

Unfortunately there is little to report this month as there has been a very poor month of flying weather and we are in the midst of the usual September/October gale season.

Garth

Bill's Scale Column

This month's instalment of useful information :) is on the colour of Japanese aircraft. I have also learned this month that Polar bears are left handed, something that has been worrying me for years. However back to the aircraft.

When the first of the A6m2 model 11 appeared over China in 1940, in photographs it would appear that they were painted in a two tone finish. Some thought that this was caused by shielding parts of the aircraft with canvas covers from the sun. Another thought was that it was a trial of different paints to test their resistance to weather. The difference in colour is still unconfirmed. Something else to worry about.

At the factory a primer coat of red oxide was applied to the whole airframe followed by a top coat of semi gloss amber tinted grey. This colour was very similar to the Luftwaffe's RLM02. In service and once exposed to the tropical climate the surface of the paint lost gloss and gradually chalked towards the appearance of a dull dove grey hue. Continued exposure and a absence of surface maintenance further degraded the paint to a almost white fish grey appearance. So the very pale grey or off white impressions often presumed to represent the original Zero paint colour were the result of severe oxidisation and chalking of the paint from extreme sun, humidity and temperature

The A6M2 21 aircraft engaged in the attack on Pearl Harbour were Mitsubishi built aircraft. When Nakajima began producing the same aircraft from late 1941 the paint they applied was at first slightly darker and more yellowish than the Mitsubishi built ones. But weathering also caused a loss of gloss and the paint chalked towards a more neutral grey. The whole cowling was painted a glossy black with a blue undertone. In service the cowling gradually faded to a dark grey or even a blue grey appearance. The Mitsubishi cowling paint was more blueish grey. Some sources assert that the Mitsubishi cowling was more blueish grey and Nakajima a more solid black. The spinner was painted

aluminium over a red brown primer coat. Propeller blades were highly polished natural metal with their rear faces coated with a very dark maroon brown paint. The tips were marked with two thin red warning stripes.

I hope this has answered questions that have been bugging you scale modellers for years and you will be able to sleep better from now on.

Think and fly safe. Bill Jennings

Setting ESC

Recently I've been unhappy with a couple of my outrunner motors, specifically the Turnigy 2830 1000 and 1100 kv series. They seemed to run noisily and sounded harsh.

Changing timing did not improve anything so decided to change switching frequency, the two common ways being either a programming card or the Tx "beep and hope" method.

A web search found a rule of thumb.....

Set an INRUNNER to 8 khz

Set an OTRUNNER to 16 khz

There is a trap however, some manufacturers set 8 khz by default because on older receivers the higher switch rate may cause rf interference. As most of our motors these days are outrunners, and Rx performance is almost infallible, then it's probably safe to set to the higher value. Do keep the aerial away from ESC and motor wiring though.

Give it a try if your motor doesn't sound quite right.

Bob Morrison

Group buy Flat Board Models

The group buy for flat pack models - aka "glue and go"

Sadly, we have had to postpone out foray into these models. Those members that asked to be included have been advised separately but just in case, I've included this advice in our newsletter.

The logistics just became too difficult, especially trying to ensure we all received the particular model requested with fluctuating stock levels.

At this point it's only a postponement and when I can be assured that our order will be completed without delay members will be advised.

Cheers Nils

President's Report

It has been very quiet due to the weather. A few things that are in the pipeline should be resolved in this next month

Including a Committee meeting on the 8th.

Sorry.

Regards Barry

Recording the setup on your Tx

Recently I was using my spare Tx to carry out some testing on a new model (namely the Wing), but the screen on the Tx failed to light up, which made it useless. So what happens if some heavy-handed twit pushes the wrong button on a modern computer Tx.? You may well then have lost your correct setup. This prompted a discussion with Bob Morrison who had edited a spreadsheet from the web to record his model setups.

Most Tx manuals include a datasheet that can be copied, but if you are like me it probably contains quite a few details that are never used, so to this end I have developed an XL spreadsheet based on my JR Tx.

Now I can record the complete setup information for all my models, and it's a very easy spreadsheet to use. So along with this Newsletter I have included a copy of my basic spreadsheet for any Member to use and edit as they wish. "

Stuart

More from that man in Canberra

As promised I am sending a short story on one of the bigger models that I have built.

This is a Bearcat, built as an ARF by VQ models. It is 80 inch wing span and runs a 55cc DLE petrol 2/st motor. The plane itself is a great looking plane but in hindsight it would be better as one wing. The model comes with two parts of the wing , which is required to join at the fess, at the field , however you have to put two sets of spares in it plus three sets of wiring both sides . That is , ailerons flaps and retracts, not an easy task when the wing bolts are below all this. SO I have left it together and carry it whole in my trailerlucky for me I have a trailer....Anyway to continue . The model details said it required a 30cc donk to power it.



Not having seen this plane though, thought ok will get a motor to suit. Turns out on the box it said 35/40cc or better , hence the 55cc . Best thing to do. This thing is a machine. Throw all the hardware in the bin and put top quality control horns and decent wire in it and you have yourself a great warbird. I put in electric retracts which are designed for the plane as an extra,(\$200) and although was not sure they would last , so far so good .The plane comes with cockpit and pilot for \$800. which is a good price . It cost me with everything about \$2500 to get air .There's a whole bunch of stuff that I had to fix before it was able to fly ,one major thing was the retracts , as the plane comes with two stage doors on the retract system. I had to buy a sequencer at about \$100 to get it all to work , although people tell me if you have the latest tx its built in . I didn't.....so you need to be good at practicality, as the VQ company are not that good at getting everything right .



WE clocked this bird at 250 klms with a speed gun at our field. It has great handling and is an easy plane to fly . It will land on a short field if you get the flaps right. The only thing major that I had to do was put in 1.4 kilos of lead to get the cg right . This brings the plane in at 10kls. You will need a heavy model ticket to fly.

The snaps are of when I was building the plane I will send current snaps after the next time I fly. The powers to be at my club, said it was too loud , but when they put the meter on it , it only came at 80dcb. However the prop 23x10, was cavitating at full speed , hence the noise. Have put a 22x10 three bladed prop on it this week at will test fly this weekend, hopefully all will be well.

Anyone wanting any or more info can contact me at ...marholymes@yahoo.com.....or 0448737234.....

Hope this has been of some interest, and will right a review on a Pilatus PC9 next time.

Had a slight altercation on Sat, The bear cat is out of action for a week or so. Went to land it today and the electric undercarriage packed it in . Slight damage but can be repaired, just need the time .

Cheers to all Peter Ederle

Kelly Field crashes

I thought I should address an issue that crops up fairly regularly, ending up involving radio telescopes, malefactors with black boxes and other strange entities all of which are suspects in the fairly common crashes in the SW corner of Kf.

Now look guys - if you want to argue with this, and you know what I'm saying definitely but DEFINITELY does not apply to your crash, fine. But you have to come up with a credible argument, radio interference from some unspecified source will not cut it especially when it all works ok back in the pits and no one else has the problem at the time.

Apart from finger trouble on take-off or landing there must be more crashes in this corner of Kf than the rest of the 40 acres combined. Relatively recently I witnessed two where the cause was stated as a "glitch". In the first there was another model close enough to the model that crashed and had no problems, in the other I could see the model was utterly stalled, accounting for the owners comment that no up elevator had any effect reinforcing in his mind the loss of radio signal as a cause.

Pilots are not allowing for the visual effect of wind on the models flight path. Think about it, you fly downwind, ground speed higher by the wind speed, turn base and the turn appears to widen out. You compensate by steepening the bank and using up elevator to prevent height loss. Eventually you reach the aerofoil's stalling angle, the model gives up, stalls and goes in. It really is as simple as that.

Now, Consider this - if you pull a constant 60 degree angle of bank in a turn you are also pulling near enough to 2g and the model now weighs twice it's measured weight, I.e. A 3Kg model in this turn has a weight of 6Kg, with the need to double the lift to maintain height. There are two methods available to

the pilot, increasing airspeed or angle of attack. Increasing airspeed is not an immediate option so up elevator is used, increasing lift by increasing the angle of attack.

All good so far except with the increase in angle of attack drag also increases and speed decays even further so more up elevator is required to maintain lift and as your wife will tell you in the dress shop there's no such thing as a free lunch bozo. Past 15 degrees angle of attack most aerofoils are stalled. More than 60 degrees bank the effects are significantly worse and even with less bank, say 45 degrees you still have a 50% increase in weight I.e. the model now weighs 4.5Kg. So in trying to make the base turn look right by tightening it up the model stalls. The controls now have little effect and certainly up elevator will drive the stall even deeper and aileron input will have little or no effect beyond perhaps inducing a spin. Naturally any turbulence adds to the problems and never helps.



Quite simply, that's the reason models are known to crash in this area. It's not radio interference, not some strange influence from N Korea's nuclear tests just Joe Blogs getting screwed up and failing to understand what's going on.

Two things, as the wind increases the base turn should be made earlier and in the turn you have to allow for the visual wind effect on the ground path of the model. Keep the bank reasonable and the turn going until base can be kept at a R_t angle to the runway. If the situation deteriorates the proper recovery is to initiate missed approach. level the wings lower the nose and use power to get some speed, and go round for another go. The other option is to blame the radio, and find someone to drive out and help collect the wreckage. As experience accumulates, you will learn where the wreckage is likely to be found saving time.

Nils Acting CFI