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

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Some more from Peter's camera

From our (very laidback) stand in Instructor

If students require the services of an instructor instead of going to Kelly Field just to enjoy the intelligent and polite company of members freezing their nuts off under the shelter the following should be given due regard. Peter Ralph is on extended leave and I have been given the onerous task of representing him. (a polite way of saying he shot through leaving me to cope in the cold weather)

It would simplify matters if you do require some instruction to check in either around 6pm the night before or on the morning around 7.45 to make sure the weather is likely to be suitable and an instructor will be present..The number to call is:

Nils @0408 554 426 (SMS ok) or nibi108@gmail.com)

Bill's Scale Column

Fournier RF-4D

Hi Guys,

As noted previously, the Fournier has now been completed and test flown successfully. Somewhat to the surprise of all involved, the model has in fact proved a delight to fly, with no notable stability problems being immediately evident, as long as a reasonable flying speed is maintained. To my considerable relief, the retracting undercarriage has now survived eight take offs and landings without any damage. The effectiveness, or otherwise, of the spoilers has yet to be tested simply because the model has proved not particularly difficult to land with the spoilers retracted, and there remains a nagging concern that their deployment on finals might just slow it down enough to trigger a highly undesirable tip stall close to the ground. Experiments in this regard will be conducted at a very safe height, once I have accumulated a bit more practice in flying the model! The full size aircraft is of course renowned for its low speed aerobatic performance and, with plenty of power available from the OS 3820 electric motor, it will in due course be interesting to see if the model has similar capabilities.

So what have I learned from the design, building and trimming of my Fournier, that might perhaps be useful to anyone else who is tempted to build their own scale model of this beautiful aircraft?

Firstly, although I made numerous structural changes to make my particular model as close as possible to an exact scale replica of the full size aircraft, it remains fundamentally the same in aerodynamic terms, as the semi/scale RCME Fournier design on which it is based. It is notable that the original designer of that model, went to consider pains to research and reproduce in reduced scale, the lateral and longitudinal set of the full-size Fournier wings and tail assembly. Although the wing section has been slightly simplified with a flat rear underside, the wings are set at + 3.5 degrees of incident relative to the longitudinal axis, and are twisted to create 3.5 degrees of washout at the tips, exactly the same as the full size aircraft. Again as in the full size aircraft, the tailplane in the model is set at +2.5 degrees of incidence to the longitudinal axis; a situation which is notably different to the general aero modelling practice of placing the tailplane parallel to the longitudinal axis.

As is the case with most of the plans now published for R/C models, the source RCME plan upon which the model was based made no provision for side thrust in the motor alignment. The Fournier is however unquestionably a motor glider somewhat notorious for its tendency to tip stall, and it seemed to me that everything possible should be done to minimise any requirement for unnecessary lateral trim changes in flight. Anyone who has a background in building free flight models knows full well that, if you want a model that can be trimmed to fly straight and level through variations in engine power and the transition to a glide, the only practical way to achieve it is to build in right thrust to balance the unavoidable effects of changes in engine torque. Accordingly, I modified the plans to provide 3 degrees of right thrust; a decision that has proven to be well and truly justified!

Finally, the source RCME plans indicated a desirable C/G position at 24% of the root wing chord but, in the associated model description, the designer recorded the fact that the prototype was difficult to get off the ground and had a tendency to nose over in landing. Given that the original model was designed for I/C power, and that the recommended C/G position would have been measured as is normal practice, with an empty fuel tank, it is perhaps not surprising that the prototype experienced the problems that were described. Electric models are clearly different to their I/C equivalent, in that there is simply no change in the position of the C/G during the flight due to fuel usage. In these circumstances I decided that a more rearward position should perhaps be tried. As it happened, on completing construction of the model I found, much to my delight, that when fitted with a single 2200mha battery it balanced on the main spar at 29% of root chord. This was just too much of a happy coincidence to be ignored - every conventionally configured model that I have previously built hast been trimmed to balance on the main spar, so that is where the Fournier balanced when it took off for its maiden flight, and that is where it will stay!

Chris Rowe

More from that man in Canberra

Hi guys just a quick note to show you that the big bolt is nearly finished. This is a Top Fight arf which has been modified big time . It's got a 85cc DLE donk up front. It kind of fits . Still have to do some plumbing and cosmetics , so maybe two weeks for the test fly. Should come in at about 15klgs. I'll keep you posted

Cheers Peter E

President's report

Since being elected at the recent AGM there is not a great deal to report on however there are a few items for me to cover.

Some of our members are tripping overseas and others to the mainland. Jason and family are off to South Africa for 51 days via UK, Peter Ralph and Amy are in China walking the dog for 3 months, Glen Pearce and his wife are in Queensland for their annual trip, Ray Stidson and his wife are off to Queensland for 3 months to be followed by Mike Hawkins and his wife who are off to the Gold Coast or thereabouts for 3 weeks. We wish them all safe travels and return to Tasmania.

Since taking office our secretary Ken has been hard at work getting all the information off to relevant authorities and is in the process of setting up an electronic document recording and access system so that information will be readily available to committee on line. This will reduce the amount of

paperwork involved in record keeping and will also allow members to access some information from their PC. This innovation will be discussed at an upcoming committee meeting.

Phil Hubbard as curator of the SWR (Small Wheel Runway) is going to increase its width by approx. 2 metres toward the flight line. This is being done by request so that pilots of smaller models will have more opportunity to land closer on the shorter grass rather than the longer on the main runway. We can change the runways but in the end the final result lies with the pilot.

As some may know, HMAC at the recent TMAA meeting put their hand up to host a Scale Day on the March long weekend next year along with an Electric Fly in TBA. When we get into the new year it will most helpful if members who are active in these activities offer to help to put these events together.

Some of our projects are nearing completion i.e. the concreting in of the street sign as the materials are now on site and the relocation of the tail fin to the front entrance gate. The flight line shrub project has now been completed. Ian Searle is tending to the hedging fence alongside the clubhouse to replace the old fence at the tables. Shrub gardens are being planted in the pit area and the shelter floor will be addressed once these other projects are completed.

The control line circle is being relocated to the eastern end of the east/west runway behind the clubhouse. This is being carried out by Mike Hawkins and David Kettlewell. The reason is to take it further away from our northern neighbour and use the clubhouse and sheds as a buffer. The existing circle will be given over to DLG's and drones/helicopters.

If you have ideas or suggestions that you feel may be of benefit to KF, please discuss with myself or any committee member.

In the meantime enjoy the flying and changes at KF……. 'moving on' Barry Gerrard

Plan printing

Scott Rappl here
I've purchased a large format printer scanner. Scans and prints up to 915 mm wide
To help pay for it. I'm offering members at HMAC plans scanning and printing service
$15 a print up to 1.5 ms long
I can print wider but plans will have to be folded to be scanned twice and two prints taken.
And after I worked it out I'll be able to print plans off discs.

My phone number is 0439756266

Cheers Scott

TMAA Contest Calendar 2017/2018.

17th June, 2017.	**Pattern Competition, LMAC.**
12th August, 2017.	**Pattern Competition, Roaring Forties.**
9th September, 2017.	**Pattern Competition, location to be advised.**
7th October, 2017.	**Pattern Competition, location to be advised.**
4th November, 2017.	**Pattern Championships, PFL.**
18th/19th November, 2017.	**Tasmanian Glider Championship. SEAT.**

26th January, 2018.	**East Coast Fly In.**
10th/12th March, 2018.	**Scale Fly In, HMAC.**
25th March, 2018.	**Scale Fly In, PFL.**
15th April, 2018.	**PFL Scale Fly In, backup day.**
TBA.	**Electric Fly In, HMAC.**