TORQUE BACK

Hobart Model Aero Club Inc. (00549C)
Patron: Doug Chipman email: csvenn@bigpond.com
May 2020 **Editor – Sue Venn**

President's Corner

Eight weeks on into the pandemic and I trust that everybody has remained fit and well and adjusting to this relaxed lifestyle. Most will be champing at the bit to get the fingers on the transmitter.

For obvious reasons I have very little to put into my monthly preamble as there have been no issues whatsoever.

Phil Hubbard and myself have been attending to the maintenance at KF when required.
The grass is recovering from the drought and should provide a better runway surface when flying restarts.

Hopefully with the restrictions likely to be easing we may get the clearance for clubs to resume activities, probably with distancing/hand hygiene measures etc. still in place. When this happens I will get confirmation from Clarence City Council regarding opening the field and will advise all accordingly.

Keep safe,

Barry Gerrard

There's an interesting story behind this magazine cover ... see page 6

Editors Notes

Our bedroom looks out over the Coal River valley, so every morning we wake to the day's weather laid out in front of us. Over this last month it seems as though most mornings all I heard was the gloomy comment, "It's such a beautiful day for flying". It has been such a superb Autumn with the accompanying setted weather. I am sure not being able to fly has been a hard deprivation for all of you.

However I do believe there have been some projects undertaken and purchases made that will be fun to unveil in (hopefully) the not too distant future.
Chris has been building a *1920 Cato Butterfly*. It's much smaller than his last attempt which took him nearly a year to finish. This has been his 'isolation model'.

I was thrilled with the contributions to this month's newsletter. Special thanks go to Peter and Damian and Peter Lambert. I particularly want to thank Damian for his early pictures that will give you all a chuckle as you remember your own efforts - and wince at the fashions of those earlier days!

When putting this newsletter together I wondered if I had any memories of an aviation type experience to talk about, and then I remembered Chris and I went to **Warbirds Over Wanaka** in 2018 and he took some great photos. I am sure many of you have been to Wanaka but I must say for me it was an amazing day! I only went as we were staying with friends in the South Island and us two girls thought it would be a nice day for the boys to enjoy. Little did I know that I would be absolutely blown away from the very first moment.

The setting is stunning looking across the valley to the mountains beyond. We had Gold Class seats in the raked stand so we had a stunning view of the adjacent runway. The variety of aircraft on display was a banquet for the senses. The volunteers were available everwhere to assist visitors with their New Zealand friendliness. They ran everything from the parking to security as well as the exhibits and food stalls and made the day unfold seamlessly.

Although the day began with overcast skies it soon cleared and the program ran smoothly for the rest of the perfect autumn day. At the end I wondered where the time had gone I had been so engrossed. These sort of experiences certainly give us wonderful memories.

Sue

From Bob Miller

My new eflite beauty finally up and ready to scramble. There is a P51 at Point Cook with rego - VH-BOB and it is all silver.
I might get photos of it and do a spray job on this one, maybe.....

My SG 38 primary glider

Peter Lambert

The full size aircraft was built in quantity (several thousand) during the 1930's and 40's and used to familiarize future Luftwaffe pilots with basics of controlled flight.

This glider was mainly catapulted (bungee launched) from a convenient hill, the aim being to familiarize would be pilots with the rudiments of controlled flight. Using rudder, ailerons and elevator, flights of up to a few minutes (depending upon the height of the hill) were possible. Some of these aircraft were even towed up by a powered 'plane to a height of several thousand feet, although sitting on a plywood seat exposed to the elements with only a lap strap to keep the pilot place, would certainly not be for the faint-hearted.

There are some videos on YouTube of some modern replicas being aero towed up in this manner. There is insufficient space for the pilot to wear a parachute.! However, back in the 1930/40's and as far as the Hitler youth and the Luftwaffe were concerned, if you want to go on and fly a Messerschmidt, one sure way of separating the men from the boys !

When landing this glider, great care would be need as the landing skid was attached to the keel by nothing more than what amounted to a couple of bed springs! The pilot would certainly feel (via the hard wooden seat) the shock of a badly handled arrival. Injured backs were not uncommon.

The Model.

Rather than depend upon a convenient hillside or bungee launch, the model (1800mm span) has a small electric motor (a 1200 KV bell motor and 8x4 prop) fixed to the upright strut immediately behind the 'pilot' with the battery (1350 Ma/H) , 2 servos and rx situated in the small pod under the pilot's feet. Unlike the full size aircraft, the model incorporates a small amount of dihedral thus doing away with the complication and weight of adding ailerons.

The high wing combined with the weight of the battery etc situated in the pod under the pilots feet gives the model more than adequate stability as evidenced by being able to hold its own when in a thermal and in combat against a marauding eagle, the latter no doubt intent on defending its territorial air space.

The original full size craft was designed as nothing more than a primary/training glider, although the model has a pleasing performance both under power and on the glide, which contradicts its rather primitive appearance.

A close up of the heroic pilot clutching the joystick for grim death - no doubt ready to do battle with those nasty eagles that would claim Kelly Field as their own playground !

The other pic shows my Junior 60 being used in a composite role; i.e. as a glider lifter.

The glider, 45" span (being just that, a glider without any power of its own) is being carried up to a launch height ready for release (servo operated) and hopefully catching a thermal or two to prolong its flight time. Simply fitted with rudder and elevator only (two small servos to save weight) some lengthy flights have been achieved in this manner.

The venerable Junior 60 carries the glider to a respectable height before release, notwithstanding the extra weight and I would imagine that in this configuration it becomes what is in essence, a biplane with extra lift being generated by the glider's wing.

It might be of interest to know that the Junior 60 was first kitted by KeilKraft in England about 1946/7 and designed to be fitted with a whopping (and very heavy) 6cc petrol engine. Turning about 5,000 rpm at maximum output it flew well notwithstanding the lumbering motor. The subsequent widespread use of higher revving diesel/glow engines (now electric motors) and radio control systems has meant that this proven design has continued in use throughout the aircraft modelling world up to the present time.

The Junior has a generous amount of dihedral for stability - bearing in mind that it was designed as a free flight model able to lift a heavy petrol engine, together with all the other items associated with a petrol engine e.g. condenser/coil and onboard battery, fuel tank etc. However all that weight didn't appear to detract from its performance and it had a reputation for fly-aways should a thermal come by.

The thick wing section, though probably high drag when flown fast, comes into its own when operated at a moderate/low speed range, and gives this model an extremely good glide notwithstanding the leggy u/c with large wheels. A vintage model maybe but one well worth building; not just for old times sake but with all the attributes of built in stability and hassle free fly-ability.

Over the years I've seen versions of this model built as a toffee bomber, paratroop carrier with attached parachutes, jet assisted (Jetex) and in more recent times, fitted with a video camera. Not bad for a1940 design still going strong.

Down memory lane with Damian!

Left:
Damian's first plane

Picco Duellist

Cessna 182

Right:
Damian's HRCAS Trophy

Precedent Low Boy

The Aeromaster

Peter Ralph

The Aeromaster, designed in the late 1960's by Lou Andrews, quickly become a solid favourite for many years to come, for those wanting a great looking and well behaved biplane. It appeared on the cover of Flying Models magazine in March 1968. The design was generally agreed to probably be the best flying R/C biplane of all time and was able to figure well up in aerobatic pattern competition results in the USA in the early years until models specifically designed for pattern competitions began to emerge.

In my opinion it was only about 10 years ago with advent of The Great Planes Skybolt and then subsequently the prolific market saturation of electric foamie designs that better biplanes were available. The modern foam biplanes with much lighter wing loadings have incredibly low stalling speeds.

An early version of the Aeromaster. Note the use of rubber bands to attach the wings and undercarriage.

The Aeromaster is very docile and easy to fly, has great ground handling, and yet it can be pushed to really perform a full complement of manoeuvres in the air if that is what the pilot wants.

Specifications:
Various wing configurations have been offered/ suggested.
Wingspan: 48" or 53"/ 1220mm or 1346mm
Swept top wing/straight lower wing, or both wings swept.
Often a 53" swept top wing/48"straight lower wing.
My model is considered the best all round version.
Both wings swept and 53" 1346mm span.
Number of channels: 4
Recommended engine size: 45 to 60 two stroke.

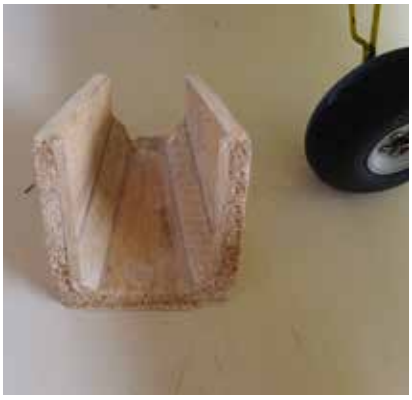
A further summary from another source:
48" span with top wing swept and bottom straight.
52.5" span with both top and bottom swept.
52.5" span top swept 48", straight bottom wing.

I had one in the late 80`s early 1990`s. Probably had hundreds of flights over several years. Was adequately powered by a Super Tigre Bluehead .60/10cc cross flow motor. This engine is drawn in the plan actually. Never any damage until minor damage to upper wing due to a low impact mid air collision. The model then passed to Damian Blackwell. (Less engine and R/C gear).

Being silk and dope covered, the early model flew well with a cross flow .60c/10cc engine. Damian re engined using a modern .45 Schnuerle ported engine which put out the same or more bhp than my older Super Tigre cross flow .60.

Good adequate performance. Damian enjoyed the model, flew the model extensively, but cannot rememberwhere it ended up.

I obtained a second Aeromaster eventually and installed a quite powerful Schnerle ported .60 Super Tigre. Model bit the dust inexplicably after about 6 flights. Only time in my career it was not pilot error and is only time I have ever had a disaster without finding the cause. Model a write off.



Now to details of my current Aeromaster:
It is the 52.5” (1346mm span) span version with both top and bottom wings the same span and both wings swept. I originally was going to power it with my nice single cylinder Laser 100 long stroke four stroke. Being a compulsive spendthrift I purchased a four stroke Saito 120 R3 radial, deciding electric motor smoothness was the way to go. Took a decent large fret saw to the nose area for radical surgery. See the before and after results in the above three pictures.

Michael van Niekerk kindly offered to cover and paint /decorate the model. A brilliant effort. I could do a good job with silk and dope then masking tape and a spray can, but I never could do a neat job with the modern heat shrink materials. Thanks Michael for an excellent covering job and an eye catching paint scheme. Being 2 part epoxy paint and my fitting of a heavy120 4 stroke radial, the weight was considerably higher than my previous Aeromasters. The 2 part epoxy paint has now cracked quite visibly with age.

No real problems though. Easy flying/handling characteristics are still rock steady and the model is as stable as previous versions and yet aerobatics if wanted (and pilot capable), are still top class. Probably due to the higher wing loading the current model has not got the slow landing speeds available with my two earlier lighter versions. My Skybolt biplanes have nice low landing speeds similar to the two previous lighter Aeromasters. Current model just has to have a higher touch down speed for a smooth landing.

Production of the original kit ceased many years ago due to the complexity of the design and the cost. It has been suggested that the Aeromaster kit hardly made a profit for the original manufacturer, AAMCO.

I believe that currently Hanger One in New Zealand make a ”short kit”. The design/ construction has been simplified due to extensive redesign allowing the use of laser cut parts, thus the internal structures of the model are cheaper to manufacture.

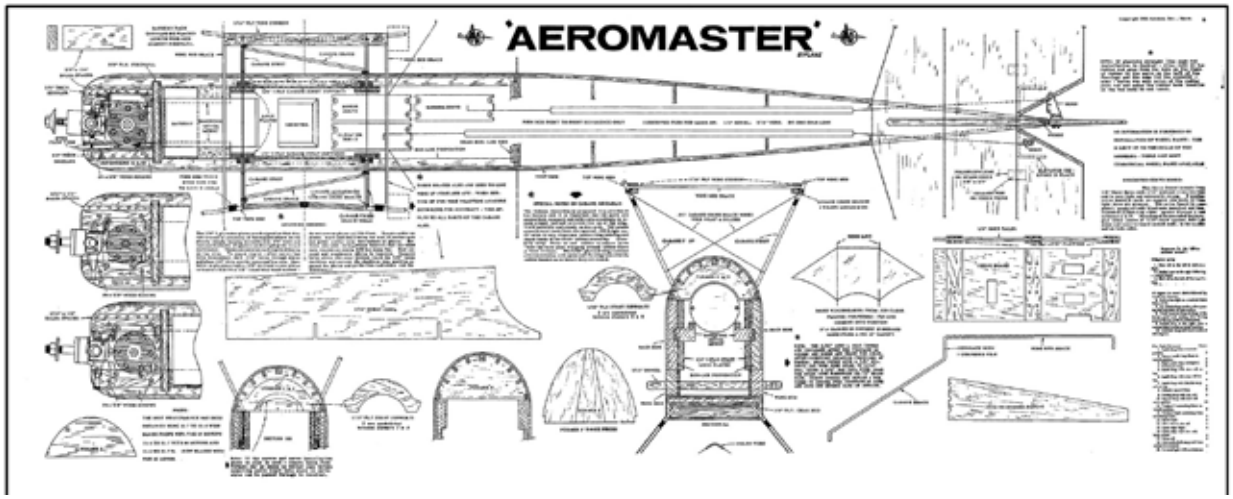
Even so there would still be a lot of work needed to finish a model. Adding to the laser cut parts are around a total of 60 various balsa sheets, sticks, engine bearers and music wire.

Then the model would have to be covered and decorated. Cost of the kit is A$313.

YouTube link to an Aeromaster being flown in the USA.

https://www.youtube.com/watch?reload=9&v=JqcLrDCBEPw

2020 Peter & Damian with Aeromaster: Models improve with age but just the opposite for the pilots/owners!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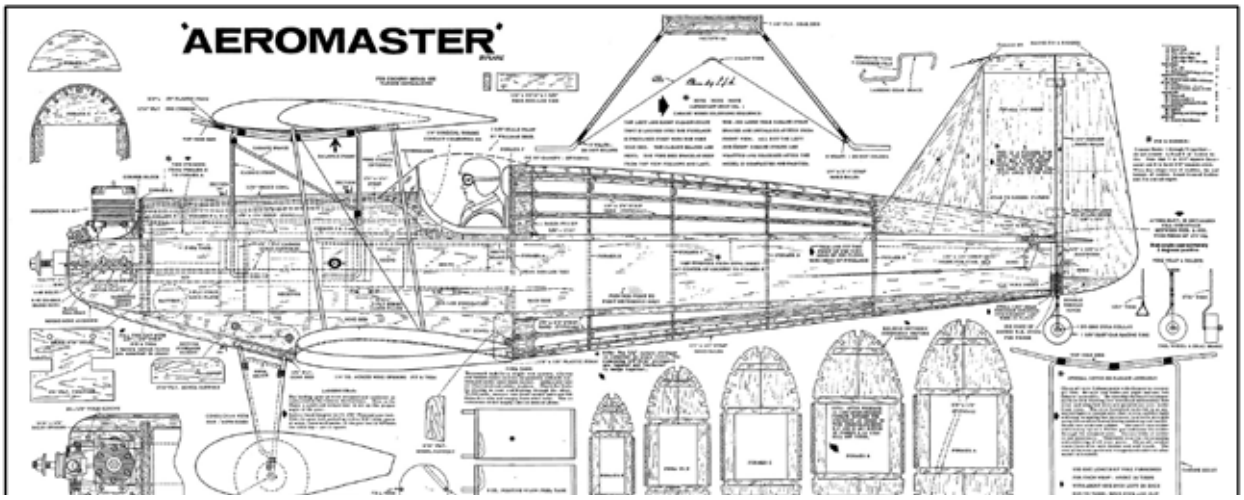
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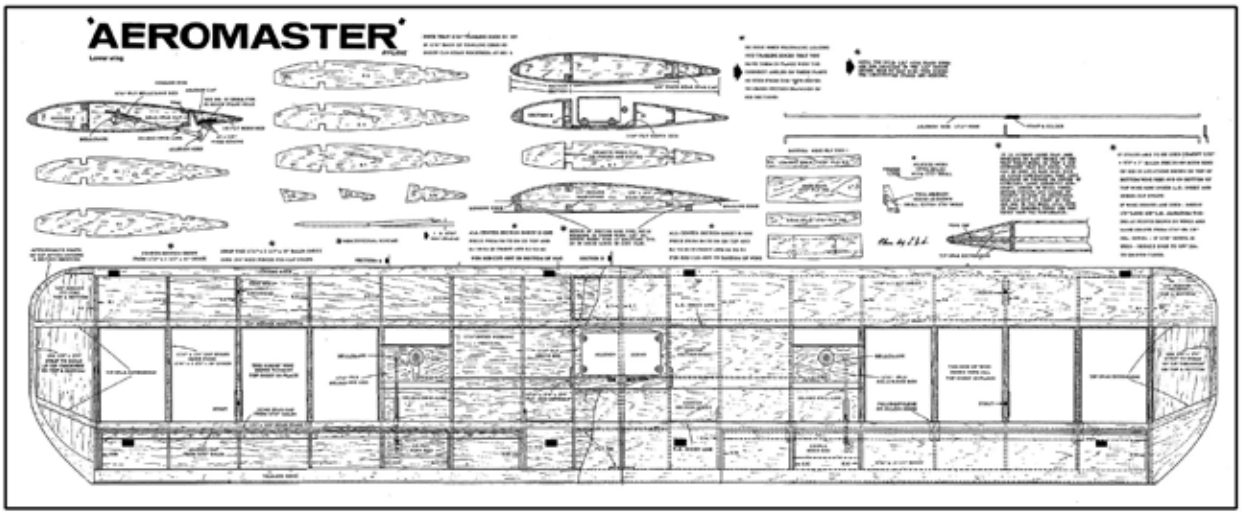
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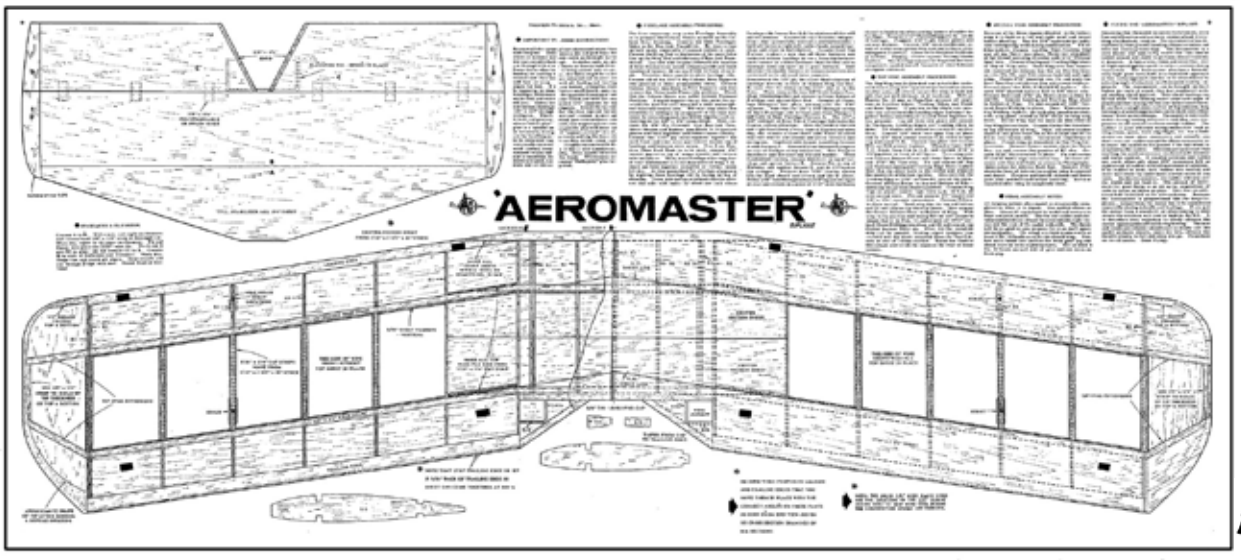
AEROMASTER

Wonderful Wanaka 2018

Sue Venn ***Photos by Chris Venn***

A wonderful day at Wanaka began with Yak 3-Ms flying in pairs. Planes were landing on grassy verge alongside the runway - and someone had left a cherry picker there! Nasty crash, pilot unhurt. Chris with the old Packards display. Helicopter lap of honour for Sir Tim Wallis (waving inside) who founded the first Airshow in 1988.

De Havilland DH.82 Tiger Moth.

De Havilland DH83 Fox Moth.

The Harvards looked stunning against the darkening clouds in an aerobatic display.

Model Aircraft maestro Frazer Briggs. One of New Zealand's best model aerobatic pilots. USAF C-17 Globemaster III - an amazing experience - made the earth shake as it went past! A Juka designed & flown by Jurgis Kairys. Douglas C-47 Dakota being pestered by the Juka.

Hawker Beechcraft T-6C Texan II RNZAF & as *Black Falcons* in an aerobatic display.

Wonderful Wanaka

The beautiful Catalina was a joy to watch. On the first day of the three day Airshow she touched down on Lake Wanaka - a thrill for Airshow visitors. Curtis P40 Kittyhawk. De Havilland Vampires. Mustang P51D.

T-28 Trojan **De Havilland DHC-1 Chipmunk**