

THE VOICE OF CONTROL LINE AEROMODELLERS FROM AROUND AUSTRALIA

Number 257

Produced by the Victorian Control Line Advisory Committee



October 2020

INSIDE THIS ISSUE

Contest Calendars.

Notices.

Shop Talk.

“Nightmare” The Flying Camera.

Tissue Over Mylar Covering.

For Sale and Wanted.

PRODUCTION SPECIFICATIONS

Please send any submissions for publication by CD/memory storage device or use Email.

Contest results should be tab delimited, i.e. use a single tab between each column of results, if submitted by disk or email. This makes formatting much easier on the editor.



COMING
EVENTS



VICTORIAN CONTROL LINE CONTEST CALENDAR 2020

DATE	EVENT	CLUB
Oct 4	CLAG flying day	Moe
Oct 5-6	Ringmaster Fly-a-thon	KMAC
Oct 18	Corflute Combat, F2B & Classic Stunt.	CLAMF
Oct 25	Doug's Vintage Stunt Day	KMAC
Nov 1	CLAG flying day	Moe
Nov 8	Combined Speed, Warbird Stunt and Nobler Stunt.	CLAMF
Nov 29	Monty Tyrell Classic Stunt	KMAC
Dec 6	CLAG flying day	Moe
Dec 13	Vintage A, Classic B, Classic FAI.	CLAMF
Dec 20	Club Day and Christmas Party	KMAC

Events will be flown in order of printing. Events in **Bold type** will be flown over hard surface.

CLAMF Frankston Flying Field, Old Wells Rd, Seaford (Melway 97J10), GPS -38.086777,145.148009

10.00am start

Contact :- Secretary, H. Bailey (03) 5941 5978

Email :- clamf@ozemail.com.au

Web site :- <http://clamf.aerosports.net.au/>

KMAC Stud Rd. Knoxfield

(opposite Caribbean Gardens) (Melway 72 K9) 10.00am start

Contact: President:- Reeve Marsh 0405 001 008 or

Secretary:- Steve Vallve 04099 35358

Email:- knoxmacvic@gmail.com

Web site :- <https://sites.google.com/view/knox-model-aircraft-club/home>

CLAG has monthly fly-ins at the Moe Race Track every first Sunday of the month.

Contact :- Treasurer. Alan Frost

Email:- afrost2@skymesh.com.au

Phone:- 03 52817350

**Send your articles for publication to
Newsletter Editor**

**Harry Bailey.
3 Bailey Place
Pakenham 3810
Victoria
Email:-**

hbailey@optusnet.com.au

Queensland State Champs

3rd - 5th October 2020

Events to be held at Ipswich are as follows.

On Saturday the 3rd.

2.5 Simple Rat

500lap 27 Goodyear (Brian Burke)

Vintage A

Classic B



On Sunday the 4th

2.5 Slow Combat

F2D

Vintage Combat

On Monday 5th.

Classic FAI T/R

21 Bendix

Open Combat (if time permits)

Entries will be capped at \$30 for the weekend.

This is the first comp day for about eight months so come to Queensland and enjoy.

Club Comps

Clasii 12th December, Xmas Breakup. Vintage Combat



COMING
EVENTS



C.L.A.S. CONTEST CALENDAR 2020

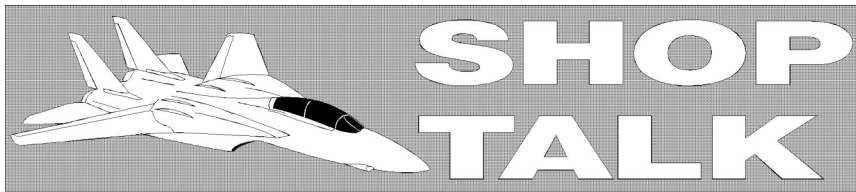
DATE	EVENT	CLUB
Oct 18	F2B Aerobatics.	SAT Ashford Reserve, Milperra.
Oct 25	Combined Speed and DGY.	SSME at Luddenham
Oct 25	Classic Stunt.	Doonside at Whalan Reserve
Nov 8	DGY, Speed(1.5 & 2.5)	Weatherman TR. KMFC
Nov 29	KMFC Christmas Party and Fun Fly.	KMFC
Dec 6	F2B Aerobatics.	Doonside. Whalan Reserve

KMFC - (Ku-ring-gai Model Flying Club) - St. Ives Showground,
Mona Vale Rd, St. Ives.

SAT- (Sydney Aeromodelling Team) - "Duck Pond", Ashford
Road, Milperra.

SSME - (Sydney Society of Model Engineers) - Model Park,
Luddenham Road, Luddenham.

DOONSIDE- Baseball diamond, Whalan Reserve.



Balsa wood, which is more often known to be used in surfboards, table tennis bats and model aircraft also happens to be a main component in the cores of wind turbine

blades due to its properties of being strong and lightweight. Prices of the material have nearly doubled in the past year and the shortage of its supply threatens to cause a delay in windfarms developments over the next year.

Due to the Chinese offering increased prices over the market value to meet the big demand in core and end grain production that's used for the building of wind turbine blades there will be an increase in prices.

"Just thought I'd pass this news along in case you were not aware that there is a worldwide balsa wood shortage which will limit the balsa wood supplies for model building and also increase the cost of raw balsa wood building materials. Expect balsa wood kit costs to go up. We are talking about a doubling of cost for raw balsa wood because of supply and demand issues.

Summary follows:

It all has to do with the increased use of wind power turbines for power generation which happen to use balsa wood in the cores of the large turbine blades. 2020 is going to be a big year which will see the USA and China increase wind turbine power projects and hence the demand for balsa wood. There are basically only three world wide producers of balsa wood, Papua New Guinea, Indonesia and Ecuador and the Chinese are buying out all the balsa wood harvests and paying top dollar to ensure they get the balsa. That means the hobby industry gets what happens to be left over where the balsa is too light or too heavy and at increased cost. Also world wide climate change has affected the current balsa harvest because it is overly wet, etc. so that contributes to the world wide balsa shortage.

This situation brings to mind another balsa shortage that occurred during World War 2 since balsa got top priority for the war effort. Many model plans of the WW2 era show the use of bamboo "slivers" as a substitute for balsa for making fuselage stringers, curved wing tips, rudder and elevator outlines etc.."

Important information regarding future balsawood supplies from a UK balsa supply company.

September 2020

The Papua New Guinea mill that we have been buying from for over 30 year has new owners and at the moment there is no agreement for future supplies.

Since being aware of these changes I've been in touch with all the plantations and mills around the world that I know of for fresh supplies, unfortunately the Chinese have beaten me to it offering greatly increased prices over market value to meet the big demand in core or end grain production that's used in the building of wind farm blades.

The few suppliers that have answered my enquiry are quoting prices that would increase the balsa raw materials by around 150%. (1.6 x 100 x 915mm Price £1.40 Possible new Price £3.48)

I'm still hoping that the PNG mill will get back to me with more reasonable pricing.

Ian Hull Director

I may have mentioned that when I was a Victorian back in 1974 and Cox PT19 trainers were a big thing, the distributors were looking to make a commercial for Television advertising.

Steve Mitchell who worked with Victorian Film Laboratories was contacted and 1 week was allotted to produce the goods, so with modelling mates — Peter Roberts — Theo Georgiadis — and myself we accepted the challenge.

We were given 3 PT19 kits and with many late nights at the Mitchell's Garage the project was done.

This article was originally published in Modellers Monthly 1974 — 46 years back.



Cox PT-19 C/L Trainer.

“Nightmare” The Flying Camera.

By Warren Williams

Most aeromodellers at some stage or another throughout their chequered careers, become involved in some crazy and seemingly impossible tasks.

The classic case for me and for three members of the Victorian Control Line Aeromodellers, Steve Mitchell, Theo Georgiadis and Peter Roberts came about following a request from an advertising company that we construct for them (in one week!) a control line aircraft with throttle control, capable of carrying a 5 lb. movie camera, to be used in the proposed making of a television commercial.

It was also necessary that the camera be mounted on top with a clear 360 degree rotational view through the lens. This meant that a low wing aircraft would have to be constructed.

As the four of us involved were mainly flying stunt, we were faced with a venture where a lot of guesswork only could apply to the aircraft, which was later to be named affectionately "NIGHTMARE".

The project involved a total labour time of just over 80 hours between the four members in four nights, many of which were 2.30 a.m.—3.00 a.m. early morning-sessions. We were faced with many problems during construction most of which were solved as they appeared.

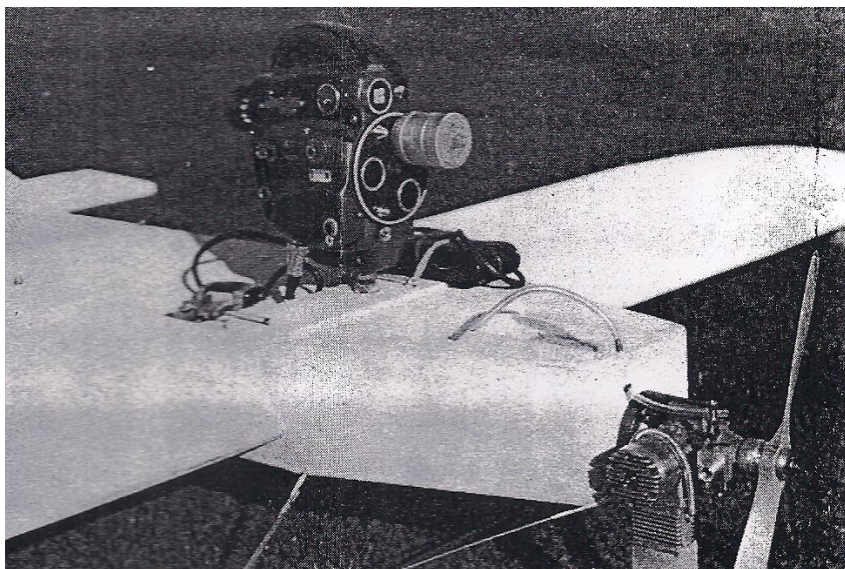
Our aircraft began with the wing, constructed of Polystyrene foam. and here we knew plenty of area would be required and had to decide on size. This decision was narrowed by the fact that our block of foam was 42" long by 12" x 20".

Consequently our wing was 7 ft. long by 20" chord. The section for the wing was a flat bottom N.A.C.A. Mitchell special lifting section. With no time for technicalities the rib template was drawn with one swift stroke of the pen by Steve, with all in favour, that's it! To also save time, no dihedral was used and this helped speed our construction time in joining the wing halves.

The wing had Balsa Leading and Trailing edge spars, tips and reinforcing where necessary. Approximately two degrees positive incidence was used to aid in lifting the beast.

The tail was also foam, of similar construction being approximately one third the wing length and one quarter the wing area.

Our fuselage was from 2 x 4 foot by half inch sheets of balsa arranged in a twin boom fashion 9" apart which also simplified construction.



The camera installation: A Paillard-Bolex 16 mm movie camera bolted to the fuselage. Purpose was to film Cox plastic trainers in flight from the circle.

This was tapered from the wing leading edge to the nose to give additional streamlining and assist with propeller thrust efficiency.

Three, eight-inch plywood formers were used up front and balsa was used for top and bottom sheeting and tank compartment. Additional foam was later used to cover the top section from the leading edge to the trailing edge of the wing.

The mount for the camera was from 3/8 inch ply and placed on the fuselage top in such a position as to balance out the completed model. Our bellcrank position decision was also helped by the length of the piano wire available although this worked out about where we would have put it anyway. A "Roberts" three line bellcrank unit was used and control linkages were reinforced for the additional load required. Our bellcrank mount was from 1/4 inch ply across the bottom of the fuselage, placed under the wing so that control wires would not come in to view from the camera lens. Undercarriage was two main wheels later braced to take the weight involved and a third wheel at the trailing edge of the wing.

The model was completely constructed with PVA glue and 5 minute Epoxy and painted with white PVA water based paint.

Power was supplied by an Enya 60 swinging a 12" x 6" prop. All up weight was 9 lbs, with camera to be added 6 lbs, making a total of 15 lbs!

Material cost less engine was \$61.00 to complete the model.

We kept telling ourselves that our "Nightmare" would fly, although the question was how and for how long. To save one expensive movie camera, our first trial flight was to be made with a dummy weight. The moment of truth was near as one 10cc engine fired to life. Theo being our heaviest member in weight was elected to be our pilot. At this point and making sure the machine had been captured on film, the release sign was given and our "Nightmare" soared magnificently aloft. The first flight was followed with a second and for this flight the movie camera was fitted and loaded with film.

As there had been a tendency for the inside wing to create too much lift, some wing tip weight was removed. Following our second flight the complete weight was removed and there was still a tendency for the outboard wing to drop. This is partially due to the camera drag and position of mounting and will be corrected by a trim tab on the outboard wing.

All in all our "Nightmare" was a success so far, three movie shots had been taken with the camera facing different positions and our only worry now was engine vibration affecting the camera. We were overjoyed when, after developing the film found no vibration problem existed. This would have been minimised by the massive amount of foam used which would help absorb vibration, and also with such a large wing area to keep a stable flight. It is a strange sensation watching the movie shots and unless told, one would wonder how these had been achieved.

The next step was a few minor adjustments to our model and a fourth line will be fitted for camera control. The idea of the setup is to get shots of trainer model aircraft flying at the same time.

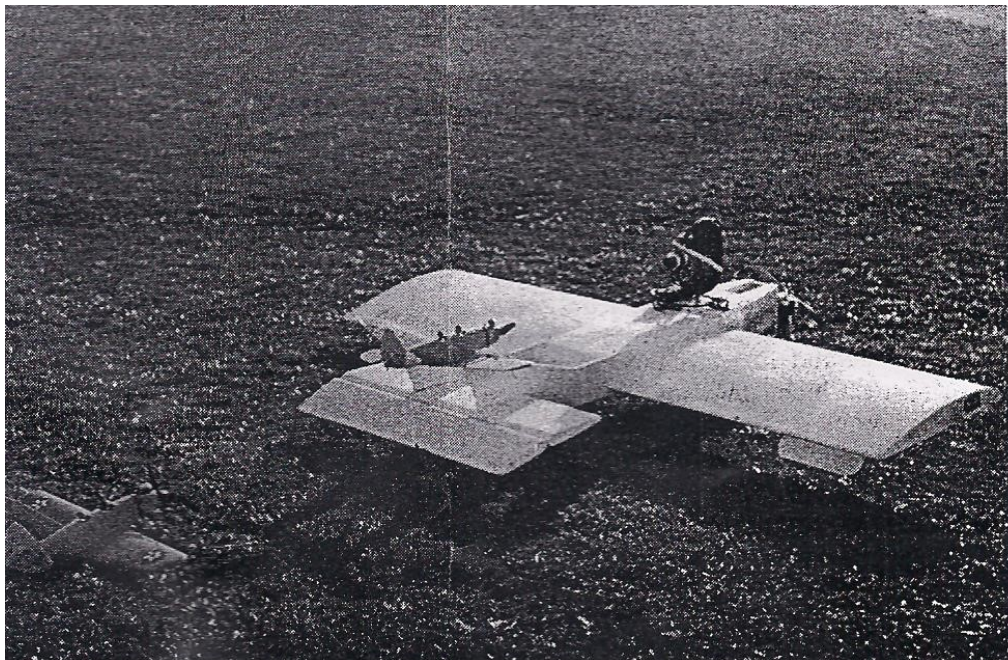
Some shots will be taken with the camera lens facing forward and others facing down the lines, with others from the rear looking through the twin fins. This is also to include several crepe streamers extending from the tail of the "Nightmare" to enable shots of the trainers as they approach, cut the streamers and make an overhead pass.

Although a challenge from the start, we were successful with our mission and this is what really makes an aeromodeller feel so good; the thrill of creating and that first test flight.

A three-view drawing has been included, although it's not the sort of thing to build for Sunday flying.

The "Nightmare" was flown on 60 ft. lines, later shortened to 40 ft. and has tremendous line tension. It can be handled okay but if any stunter of mine flew like that, I'd want to take it home and burn it.

Author's note: To our knowledge at this time, a 16 mm movie camera has never been carried on a control line aircraft although there have been instances of 8 mm on R/C but without any great degree of success.



Tissue over Mylar Covering

An article by Danny Maslowicz

Why use Tissue over Mylar (for open structures)?

There are many reasons:

- #1 It seals and air-proofs the structure
- #2 Any warps (deliberate or not) are 'locked in' but easily adjusted during the heat-shrinking stage
- #3 Mylar provides a good base for tissue covering (although it is quite usable without tissue)
- #4 Tissue joins may be made at random over the Mylar for pleasing effects
- #5 It is lighter than a well sealed tissue + dope finish alone
- #6 It takes less time than a straight doped tissue finish as fewer coats are required and the very thin dope dries quickly
- #7 It seems to last for ages - I have models that are over 15 years old and they are just as good and straight as the day that I built them
- #8 The result is tougher than tissue alone and does not appear to be affected by the brittleness that plagues a straight tissue finish over time.

This is how I used some 38 μ (micron / 1.5mil) heat activated Mylar (Doculam) to cover the flying surfaces of a Free Flight model. This would be quite suitable for a C/L model (Doculam is traditionally used to cover school books btw)

First measure and cut your Mylar using a sharp hobby knife. Allow a generous overlap.

Lay the Mylar over the surface and using a covering iron set to about 180°C (350°F) tack the Mylar to the leading and trailing edges plus the root. Start with a few dabs at the tips, the centre and then in-between these touches - do not drag the iron along the outline, just keep filling in the gaps until a final smoothing pass may be made along the perimeter.

When it looks good (the Mylar can be peeled and re-positioned if required - it still stays sticky) then trim off the excess - use a steel rule for the straight bits and a steady hand for the curves - use a sharp blade

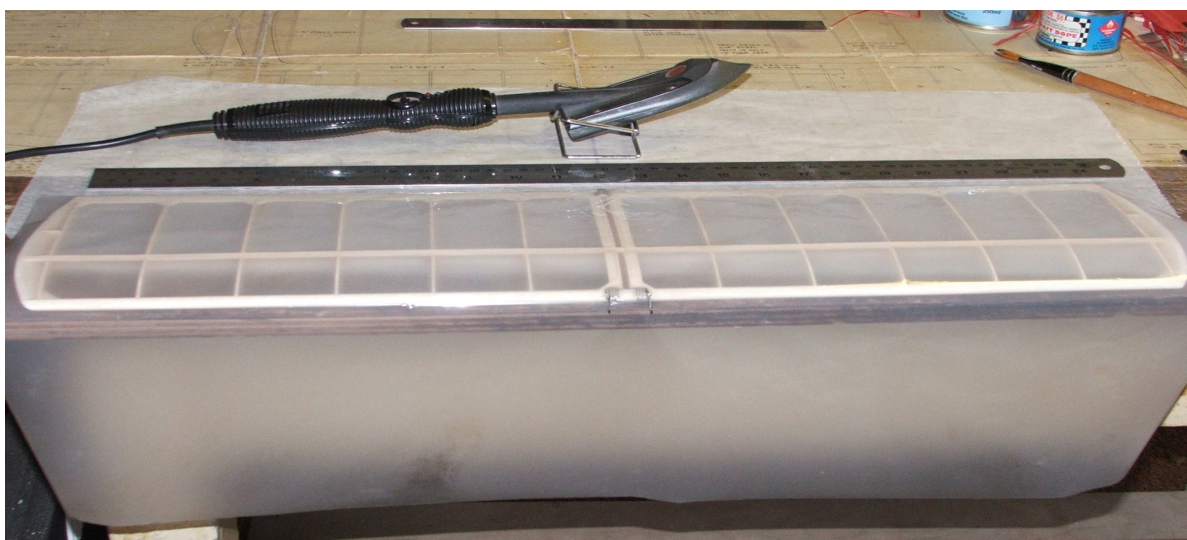
Use the iron to seal down the overlaps, ignore any small wrinkles and break out the hot-air gun.

Use the hot-air gun to shrink the Mylar to the airframe. Doculam can withstand a bit of heat and any wrinkles soon disappear.

If you are shrinking covering onto a light structure it might bend a little, don't worry too much as when the other side shrinks it should pull things straight

A tip. Poke holes in the ribs to allow trapped air to escape or your panels shall grow like balloons as the air expands with the heat)

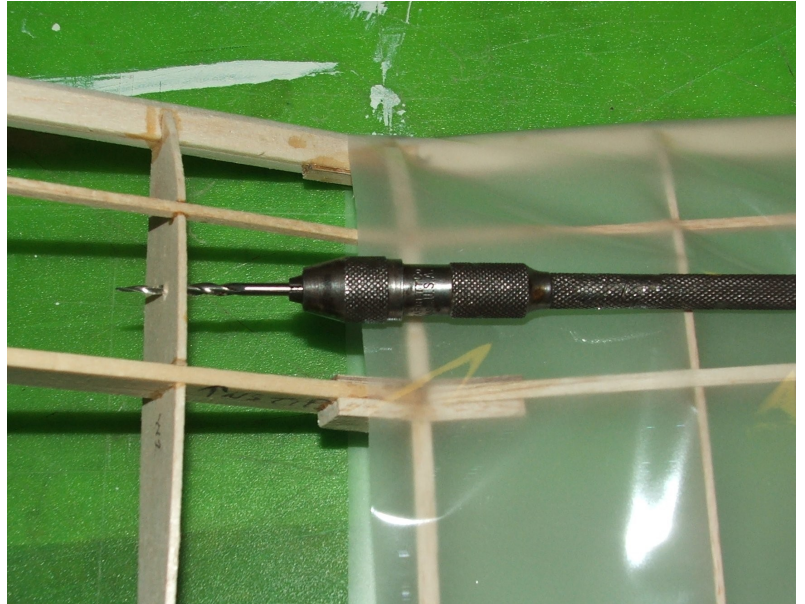
Mylar cut and laid in position



Mylar sealed to leading and trailing edges



Drilling air vent holes in ribs



Rather than attempting to cover a whole panel at a time I use a technique that has served me well over the years - cover the panels in strips of tissue

First - check that any warps are as planned and use the heat gun to adjust them if required as they are about to be locked in for the life of the model once the tissue is doped on.

Next I measured the rib spacing, it was precisely 2" for the wing and the horizontal stabiliser so I decided that a 1/16" tissue overlap at the joins would be sufficient to make the completed job just like one continuous piece of tissue.

So with another new #11 blade in the trusty X- Acto knife, a few sheets of red Esaki tissue were cut into 2 -1/8" strips.

The strips were aligned with the TE (plus about 1/8" extra) and wrapped around the LE until the ends matched up at the TE then a spritz of water was applied to the upper surface to hold things in place followed by a coat of thinned dope brushed onto the damp tissue to stick it down - working from the LE towards the TE. The water dampening also helps the tissue to shrink without wrinkles

* Note * Some references that I have seen advocate doping the Mylar prior to attaching the tissue and then using dope thinners through the tissue to attach it - this might work, I have never tried it and dope thinners are more expensive than dope where I live so just showing what works for me

As most people would know, dope and damp tissue causes 'blushing' (dope gets a white sheen) but don't worry about it as once the first coat is dry the next coat of thinned dope brings back the colour.

Once all the red tissue strips were attached and the overlaps trimmed and doped down some black tissue was cut into 2" wide strips, aligned and the exercise repeated.

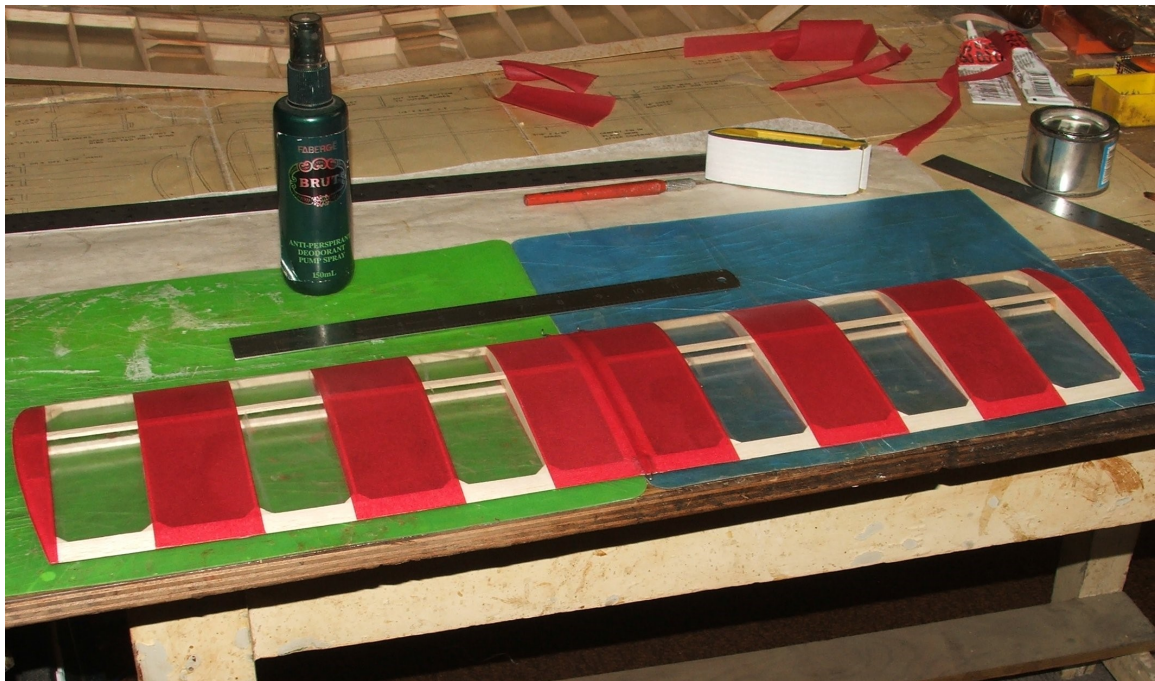
A final coat of thin dope removed any blushing so I cut a slot for the fin and posed the work for a progress photo.

Tissue laid into position



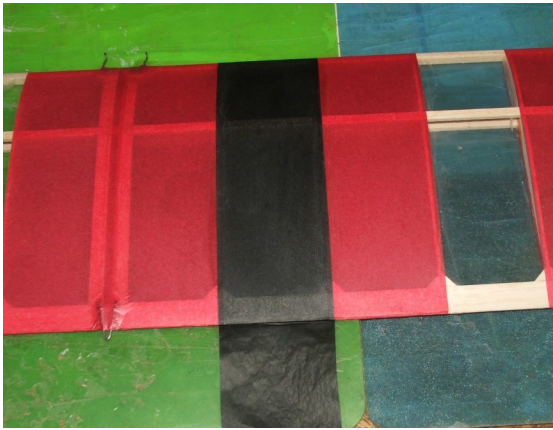
Tissue lightly sprayed with water and doped with 50% dope/thinners





Black tissue damped and doped to overlap red tissue

Stabiliser Completed



End Result

Next time I shall describe how I used silk over Mylar for a Control Line stunt model.

For Sale

For Sale.

38µ (micron) Mylar laminating film (heat activated adhesive).

Suitable for C/L combat models, great for F/F models.

Even better with tissue doped over it for a 'vintage look'

This is very close to the 'Oz Cover' that was sold by Saturn Hobbies many years ago.

1m x 5m \$20 + postage at cost.

feraldoghunter@gmail.com

Danny Mz mob # 0477224751

Speed pans for sale. 2cc size (\$25) and 21 size. (\$30)
Also small amount of Nelson type T/R pans. (\$25)
All pans in the "as cast" state. Not finished.
Andrew Nugent. andrew.n5@bigpond.com

I am selling off engines from the estate of the late Ross Boyd for his widows benefit. Can you please advertise these:

Johnson 35, Stunt Supreme, excellent, in box	\$200.00
Cox Olympic, very good (in tatty box)	\$350.00
E.D. Racer Mk2, very good (spinner anodizing gone)	\$125.00
Webra Mach 1, excellent	\$250.00
Elfin 2.49 beam mount, F.I. very good	\$150
Merco 35 redhead R.C., with muffler, in box, pristine	\$175
Glo Chief 19, circa 1960, very good, enlarged mounting holes	\$150

Regards Ian Smith

Tel:- 02 4975 2292

MACCA'S MACHINING & MILLING SERVICES

Tank Valves

Filler Bottle Valves

Shaft Extensions

Engine Plates

Venturis and threaded inserts and general machining.

Phone 07 3288 9263

Mobile 0402 295 370

Taipan propellers in the following sizes available:

Flexible white nylon 7x6	\$2.20 each.
Small number of black (Glass Filled) 7x4 & 7x6 left @	\$2.50 each
9x6 Black GF	\$3.00 each
10x4 Black GF	\$3.50 each
10x6 Black GF	\$3.50 each

+ letter post or parcel post rates depending on size, weight & quantity ordered.

Pure, first pressing Castor Oil:

Note: New price increase below due to a 20% price increase from my supplier effective 1/12/19

2.5 litre	\$35 +3 kg satchel Auspost price
4.0 litre	\$50 +5 kg satchel Auspost price
4.9 litre	\$60 +5 kg satchel Auspost price

Pick up only 5lt castor oil price is \$60

Above prices inclusive of new container cost

Premixed Diesel fuel in new 500 ml & 1 lt steel containers \$22 & \$35 respectively

I cannot post diesel fuel (i.e. dangerous goods) unless you can arrange with your own courier

PayPal "gift payments" accepted

Bank EFT deposits accepted.

Cash accepted.

PH Ken 0433 797 058 combtkid@hotmail.com

As some of you already know I have taken over the manufacturing of CL props for Supercool props.

Email me for any enquiries / orders

F2C , GY, Speed , Free Flight & other props available.

Contact Ian Thompson

ianthompson@msn.com mobile 0451085325

Be considerate with phone calls. I am in WA & there is a time difference from Eastern States.

U.S. Hard rock maple bearer wood, precision cut and machine sanded.

Cost \$4.50 each plus postage. All lengths 12"

Sizes: 3/8"x3/8"

3/8"x1/2"

1/2"x1/2"

Also, I now have a stock of 3/16" sq. and 1/4"sq rock maple spars.

All spars are precision sanded with 150 grit. \$4 each plus postage.

TCA Italian glow plugs in Australia.

I have for sale a large range of TCA glow plugs.

TCA supply Luca Grossi the current F2A European champion.

There are std type 1/4x32 thread, Nelson style tapered seat with flat coils and the "turbo style" tapered seat.

Italian made TCA Nelson type combat plugs arrived for those that might be interested, \$8 each plus postage.

email: atheath296@gmail.com

I can now produce wings and tailplanes that are shaped on a Computer Numerically Controlled (CNC) router and can be any planform and shaped with any section although I have my favourites. The finish and accuracy of these products has to be seen to be believed.

They have laminated leading edge and reinforced front panel on the outboard wing for catching.

Internal control grooves and bellcrank assembly are also part of the package. They are ready for glassing as supplied. A shut-off actuator can be supplied as part of bellcrank assembly if required.

I can also supply spruce for leading/trailing edge etc. cut to any section size.

I can be contacted via Facebook or

Mobile 0404205562

Ray Harvey



Wanted.

Enya 45 BB complete with muffler.

Derek Pickard 0419 388 075

businessmedia@hotmail.com.au

Wanted.

Muffler for OS 35 S engine

contact Bernie Cosgriff on 0478559145

or email berniehousedown@gmail.com

wightsmodelaircraft.com.au
Over 300 products in stock.

Wights Model Aircraft

New Website



New Shopping Cart

Control Line - Accessories; Bellcranks; Connectors & Leadouts; Covering Material; Engines; Flying Lines;
- Fuel Items; Fuel Tanks; Glow Plugs; Handles; Kits; Propellers; Rib Sets;
- Timers & Programmers; Wheels & Landing Gear.

Free Flight - Timers & Programmers.

Cox Engines - Surestart & Bee Engines; Glow Heads; Tanks; Gaskets; Props; Mounts; Parts & Accessories.

SUBSCRIPTION APPLICATION ARE YOU BORROWING?

If you have just finished reading somebody else's copy of Australian Control Line Newsletter, why not get in now and order your own copy?

For Australia and New Zealand the cost is \$35 Aus and other countries \$50Aus.

For this amount you will receive eleven issues of this newsletter and be up to date on Control Line both in Australia and elsewhere.

There is also an additional option to have it sent to you by email if you desire.

Annual email only subscriptions are \$15 per year.

You can order from:

M.WILSON

P.O. BOX 298

SEAFORD

VICTORIA 3198 AUSTRALIA

NAME _____

ADDRESS _____

POSTCODE _____

TELEPHONE _____

EMAIL _____

A.C.L.N. ADVERTISING

For the newer readers, we point out that "private" (personal) ads are free to subscribers, and "commercial" ads are \$20 per quarter page, or \$5 for business card size. Commercial Advertisers can receive a free business card size ad for submitting original articles of interest to A.C.L.N. readers.

Copy or artwork for ads should be sent to the editor, cheques to the treasurer (M.Wilson P.O. Box 298 Seaford, Vic. 3198) if you want to save a stamp, I can forward on any cheques sent with ads, but please make them payable to "Control Line Advisory Committee"

The views and opinions expressed in ACLN do not necessarily reflect those of the Editor or Committees of Clubs or of the members of the Club represented in ACLN but are those of the respective authors.

Any comments, queries or complaints with respect to any article in this publication should be addressed to the author of the article.

The Editor and Committee of Clubs accept no responsibility or liability for any loss or damage incurred or suffered by anyone as a result of this publication or in reliance upon or as a result of acting upon anything contained in this publication.

AUSTRALIAN CONTROL LINE NEWS

If undeliverable return to:-

M. Wilson

P.O Box 298

Seaford 3198

Vic

**SURFACE
MAIL**