THE HANGAR PILOT

- EXTRA PAGES

ISSUE 184

- FROM UK - BUILDING FOAM RNUTS
- THE END OF THE MACDILL ERA?
- NEXT EVENT KING ORANGE

MIAMA MIAMI INDOOR AIRCRAFT MODEL ASSOCIATION

25TH YEAR OF PUBLICATION
INDOOR ISN'T FOR EVERYONE

MODEL AIRPLANE NEWS

January 1980 1930

Canada $3.75

AN AIR AGE PUBLICATION PRICE $2.95



MERRY CHRISTMAS + HAPPY NEW YEAR

TO THE WORLD'S HANGAR PILOTS!

MIAMA - HANGAR PILOT RENEWAL TIME



LIKE A LETTER FROM HOME" Whelan

THE HANGER PILOT

The Hanger Pilot, edited by John Martin Jr., who is solely responsible for its content, is published 8 or 9 times a season for bunch of middle aged guys who refuse to grow up. MIAMA (Miami Indoor Aircraft Model Association) - [redacted]. One of two active all indoor free flight clubs in AMA. For a mere $12.50 you will receive all of the published issues that year. We encourage reader contributions because, frankly, we need the material. Letters, plans, 3-views, complaints, gripes and compliments to: Dr.John Martin Jr., President / Editor, 2180 Tigertail Ave., Miami, FL 33133 USA. phone: 305-858-6363.

AMA Club 3624, Flying Aces Club 11

Hangar Pilot Rates: USA $12.50..Canada $14.00 Overseas $15.00

Club Field Marshal..Bill Criss Balloonmeister Wayne Trivin

Secretary..Sidney Gilbert Foreign Correspondent..Ric Choate

SITE FINDERS..EVERYONE IN MIAMA YES, YOU.

MEET 2 REPORT - NO MEET 2- MEET 2 WILL BE INDOOR KING ORANGE DEC. 28,29

REVILLE - WAKE UP CALL!

Wake up, boys, MacDill AFB is GONE. After 13 years we have been invited out, and we're back on the street looking for a good new flying site. I get a lot of club newsletters, and one of the stories I read most frequently is"Sorry,gang, we just lost our flying site" . Here is an opportunity for MIAMA to reach a new high level in indoor flying.

We must pause here and thank Col Bill Criss for the many years of overseeing flying at MacDill....and he's not through yet...trying to undo the misunderstandings behind the official letters we have received. Several incidents led up to the writing of those letters.

For our club to go forewawrd we must find a new flying site.. Flying in a gym after MacDill and Delta is like asking Arnold Palmer to play putt-putt golf. Let's face itgang, we're spoiled. Our next meet is at Delta, and then there is a four month gap until a meet back at Coast Guard . We did have 2 meets scheduled in that time, but are now looking around for a place to have them.

Dig out Hangar Pilot #156 which tells you more than you need to know about obtaining indoor sites.

Use this as a guide, and start looking now. Get in your car and drive over to that place you know about-with a mini-stick and an easy B, and perhaps a peanut, and show 'em what we do. Let's hear from you, and good hunting!!

DEPARTMENT OF THE AIR FORCE
6TH AIR REFUELING WING (AMC)
MACDILL AIR FORCE BASE, FLORIDA

(2)

18 November 1996

6 SPTG/CC
2413 Florida Keys Ave, Ste 1
MacDill AFB FL 33621-5315

Colonel (Ret) Rick Choate
2405 Carolina Ave
Tampa FL 33629

Dear Colonel Choate

Thank you for your recent letter clarifying the operations which the M.I.A.M.I. Club has participated in at MacDill over the past several years. It is hard to believe that the operations have been occurring periodically for that amount of time without the knowledge of the 6th Air Base Wing and more recently, 6th Air Refueling Wing leadership.

Unfortunately, the recent return of flight operations to MacDill on October 1st along with the transfer of the base to Air Mobility Command has required the 6 ARW to review all operations which were previously conducted in our flightline hangars. Two of our hangars (Hangars 1 & 2) have been turned over to a contractor who will be making modifications over the next year and a half. In the meantime Hangars 3 & 4 will be used for KC-135 aircraft maintenance. The only remaining hangar (#5) belongs to the National Oceanic and Atmospheric Agency which uses it constantly to house and maintain their fleet of aircraft.

The above tempo of operations forces me to reluctantly stop your organization from conducting model aircraft operations in any of the hangars on MacDill AFB. I have also attached a policy letter, signed by the 6 ARW Commander, outlining the exact area of MacDill where model aircraft operations can be performed.

I am sorry that MacDill can no longer accommodate your M.I.A.M.I. model aircraft club with any hangar space. I hope your organization can find a suitable place to continue pursuing their activities.

Sincerely

William E. Thiel

WILLIAM E. THIEL, Colonel, USAF
Commander, 6th Support Group

Attachment:
6 ARW/CC Ltr

DEPARTMENT OF THE AIR FORCE
6TH AIR REFUELING WING (AMC)
MACDILL AIR FORCE BASE, FLORIDA

U.S. AIR FORCE
1947 - 1997

6 NOV 1996

MEMORANDUM FOR DISTRIBUTION C

FROM: 6 ARW/CC

SUBJECT: Policy Letter

1. The return of flying operations at MacDill AFB has necessitated a thorough review of our ability to support non-mission related activities in our hangar and flightline areas. Security and operational requirements during the KC-135 aircraft beddown require strict limitations on activities which can be accommodated.

2. Effective immediately, model aircraft flight operations are restricted to the previously designated and approved area by the Port Tampa Gate at MacDill. Any changes to the designated location for model aircraft operations will be established in writing by the 6th Support Group Commander.

3. Refer questions or exceptions to this policy to the 6 SPTG/CC who will staff the issue and forward to me for final approval and action.

JOHN D. BECKER
Brigadier General, USAF
Commander



THIS CARTOON IS OBVIOUSLY PRE-ELECTION

REPRINTED FROM INDOOR NEWS

BUILDING FOAM SCALE MODELS

INTRODUCING FOAM

So many people have asked how we make our foam scale models that we thought an information sheet might persuade more modellers to try the material for themselves.

Foam is the ideal way to reproduce stressed skin aeroplanes such as those flown in WW2, or any structure where compound curves appear.

The skills required to work foam are different from stick and tissue, but they are learned quickly with practice. The material is cheap, readily available and of a consistent quality. Foam is lighter than balsa but not as satisfying to work. However models in foam do take shape very quickly and they can be cut and modified easily. Foam is also flexible and forgiving in a crash, with the benefit of easy repair.

You only need a 3 view to start building. There's no need for any construction drawings and this makes available a whole range of prototypes.

THE MATERIAL

Floormate 200 is available from Sheffield Insulation who have branches in most cities. Sheet size is 600 x 1200mm (2x4 ft) and 25mm (1in) thick. The cost is just £5 per sheet, which means you can build several models for less than a fiver.

There is a multitude of different foams, some close-grained, some lighter, some heavier, pink or white, but Floormate 200 is light blue, carves and sands well and seems best suited to the models we build.

In case of difficulty, the manufacturer is Dow Chemicals.

CUTTING

Basic shapes are best cut out with a Hot Wire cutter. You can make one yourself (see later). Alternatively a Dremel or a Vibro saw may be used. You can get by with a hack saw, Stanley knife, fret or coping saw.

Richard Grossley's peanut Hawker Tempest was built and hollowed out using only hand tools - and it can do 55 seconds indoors.

SANDING

There will be an awful lot of sanding and we do suggest you wear a mask to cover your nose and mouth. We have no reason to believe the dust is harmful.

You will need a range of sandpaper from very coarse to 1200 grit for finishing. Make a range of sandpaper files including some half round shapes. Large flats, say 50mm (2in) wide, are useful as they can 'plane' away material quickly.

For final finishing work with the paper in the hand and cut it to an oval shape to stop scuffing the material. The foam is very fragile and it needs practice to get a good surface. It helps to work on a soft work surface - a rubber sheet or a spare piece of foam - to avoid denting the smoothed surface. Keep brushing away fragments and dust - off the work and off the work surface.

Static makes this difficult, but it helps to lay off for a while so that the static will gradually subside. Like balsa, foam will take on a curve if you sand only on one surface. It will straighten again if you give a few strokes to the other side.

You will find that Hot wire leaves a welded surface, which has to be sanded through before you can get a very smooth finish.

By Richard Grossley, Peter Smart, + David Deadman

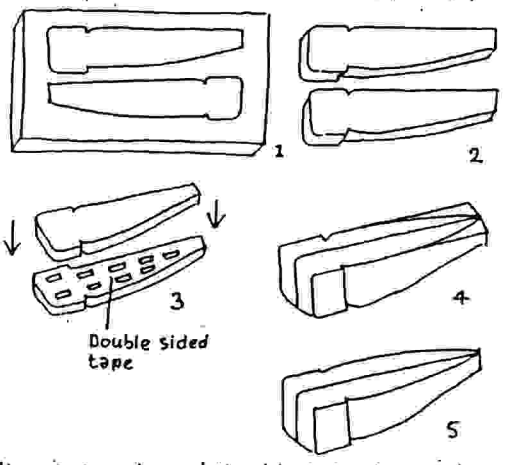
(5)

ADHESIVES

A good sandable white glue or aliphatic resin will do for most joints. Cyno must be the odourless type and avoid accellerator - it melts the foam. Epoxy is fine but heavy.

FUSELAGES

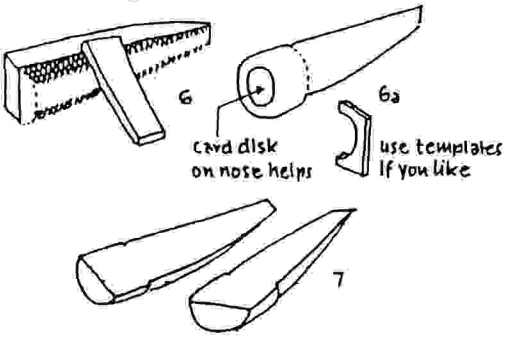
Draw the side elevation on the foam and repeat - handed (1). We make card templates and draw round them, or use spare Xerox prints cut out and spray mounted onto the foam. Cut out the side elevations (2) and stick them together with small patches of double sided tape (3). Draw the plan view on the block (4) and cut out the plan (5)



Now cut and sand the block to shape (6) with constant reference to photos and plans.

Omit all details like intakes, canopies, radiators etc, just try to get the basic shape.

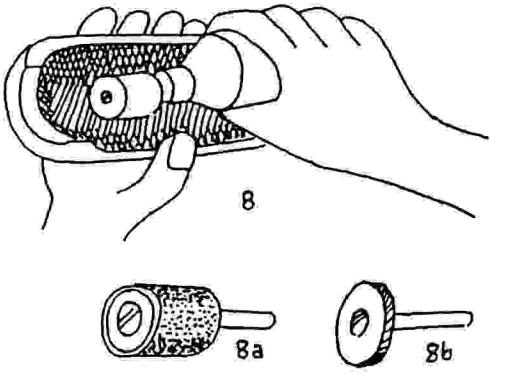
Use a new scalpel blade to carve and then work with the sandpaper down to the finest. Make templates if you want, we find it better to work by eye.



When satisfied with the shape and finish, separate the halves. If they are reluctant, spill lighter fuel on the joint. (7)

(8) The two halves must now be hollowed out to a thickness of approx 1·5mm (1/16in). With practice this is not as difficult as it sounds. Our early models were hollowed by hand by making deep V cuts in the foam and slicing out wedges, finishing off with coarse, then fine paper.

These days we use a small power drill (8) starting with a carborundum drum (8a) and smoothing with a grinding wheel (8b) holding the job up to a light constantly to check on progress and feeling between thumb and fingers. You can tell when the foam is very thin because it begins to look white as the light shines through. Use the tools like a brush and you will soon get the hang of it. Don't worry if you get too thin in places - so long as you don't burst through. (If you do you will have to put a patch inside)

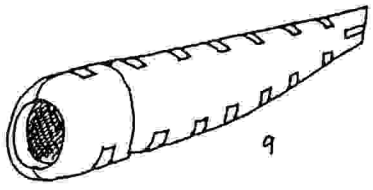


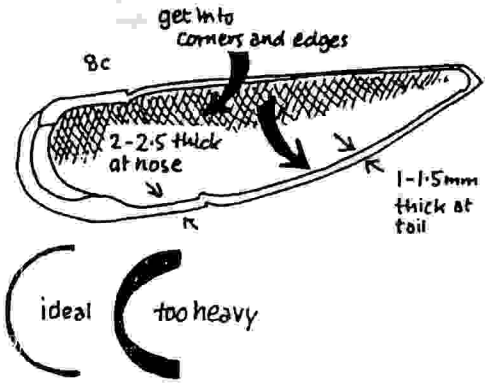
Aim to get the tail areas as light as possible but leave the nose a little thicker to help with the C/G. (8c) Do try to get into the edges and corners so that it is all thin.

Finish off by stroking with fine paper feeling for any high spots.

The secret of the success of these foam models is largely due to this hollowing out. If you do it well it will pay dividends in sheer performance.

When both sides are hollowed clean up the edges and smear both edges with white glue. Assemble the two halves, holding with strips of masking tape. (9)



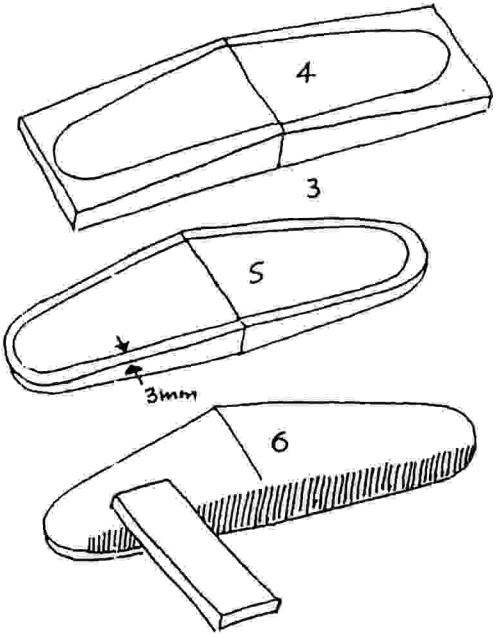


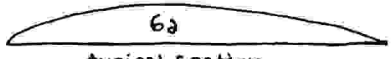
WINGS

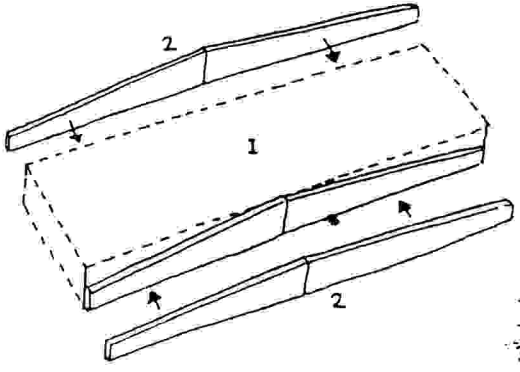
Cut a block of foam (1) about 5 mm (1/4in) larger than the wing. Make card templates to create the taper of the wing (2) and hot wire (or sand) the blank to shape (3). Draw on the outline of the wing (4) then cut away to leave 3mm (1/8 in) all round. (5)

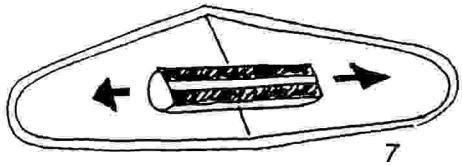
Using a coarse sanding file sand away the top surface to create a section (6a).

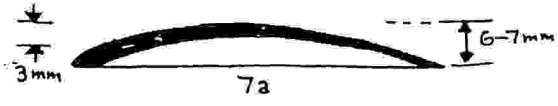
When the top surface is finished you must now make the undercamber by (7) using half round files, or paper wrapped around the fingers. Aim for a section like 7a and extend the undercamber out to tips. Feel all over with the fingers to find high spots. Do try to get the wing as thin as you dare but don't go too far near the tips.







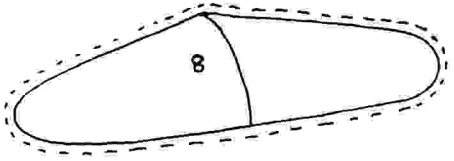


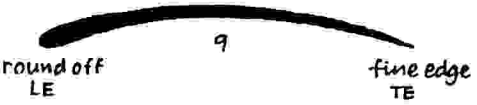


On a typical peanut wing the depth of the section would be approx 6-7mm (1/4in) but the thickness at the point of maximum camber might be only 3mm (1/8in), tapering to 1·5mm (1/16) at the tips.

When satisfied cut the wing out to its (8) final shape, round off the LE and taper the TE to almost a knife edge (9)

Finally balance the wing on a knife edge to see if one wing is heavier and sand accordingly.

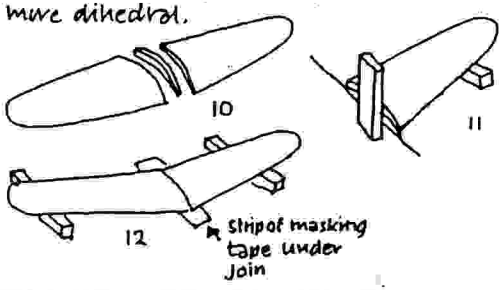




Now cut the wing in half in such a way as to leave a thin 'rib' of the section. This will be useful later on (10).

Prop up the wing halves to the dihedral you want and sand in the root angle (11). Prop up both tips and join the wing permanently (12).

The amount of dihedral is important if you are to have a reasonably stable model. We go 'overscale' on a subject with a fairly flat wing, but scale on one with plenty of dihedral. One advantage of foam is that you can cut it all apart and try again if test glider show you need more dihedral.

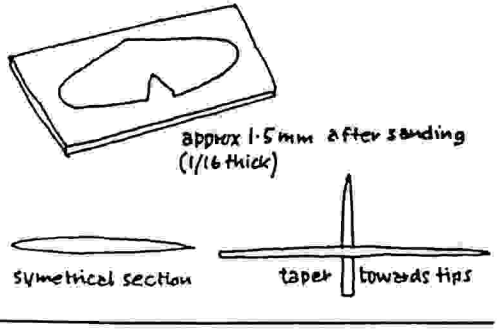


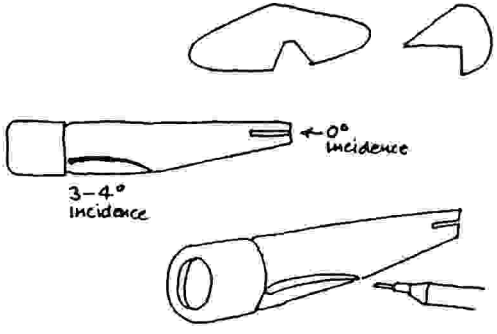
TAIL SURFACES

Cut or sand some thin sheets (say 2mm (3/32in), and draw on the shapes. Cut out and sand to section, with some taper towards the tips.

We tend to enlarge tail surfaces - Say 10% to aid stability. If you do enlarge areas adjust the chord and the span to keep the same proportions.

Rudders and elevators will be bent for trimming later, so keep them thin.

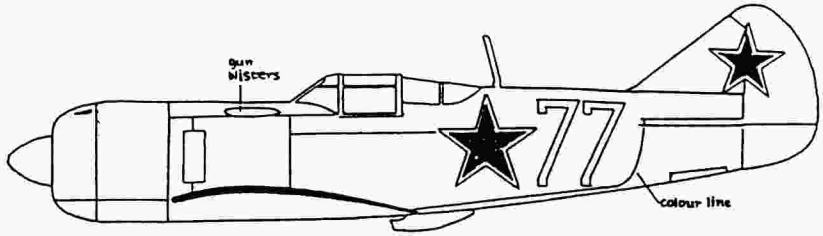




ASSEMBLY

Cut away the bottom of the fuselage (for a low winger) using the discarded 'rib' as a guide. Because of the compound shape this can be difficult to get right. Adjust bit-by-bit and take your time.

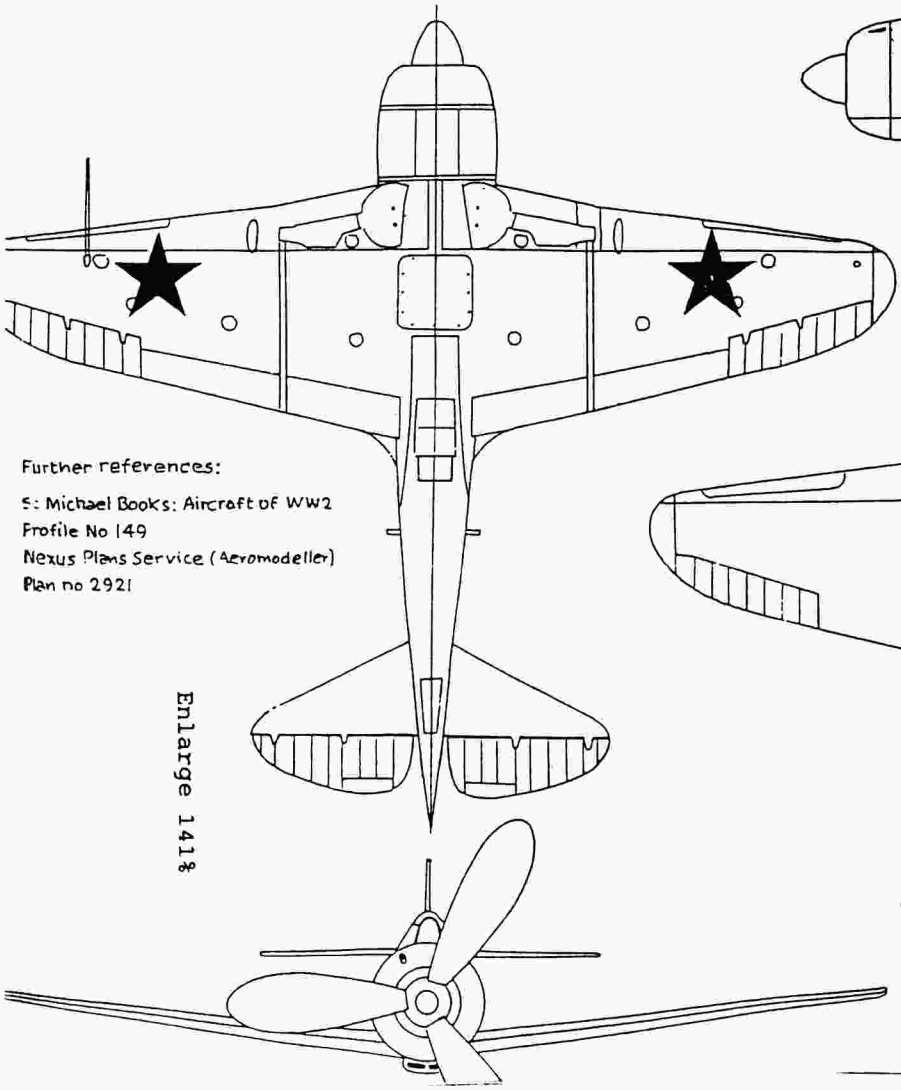
Keep the piece of fuselage to refit later on. The wing should have an incidence of 3-4°. Cut slots for the tailplane or fit it to the fuselage top if more appropriate.

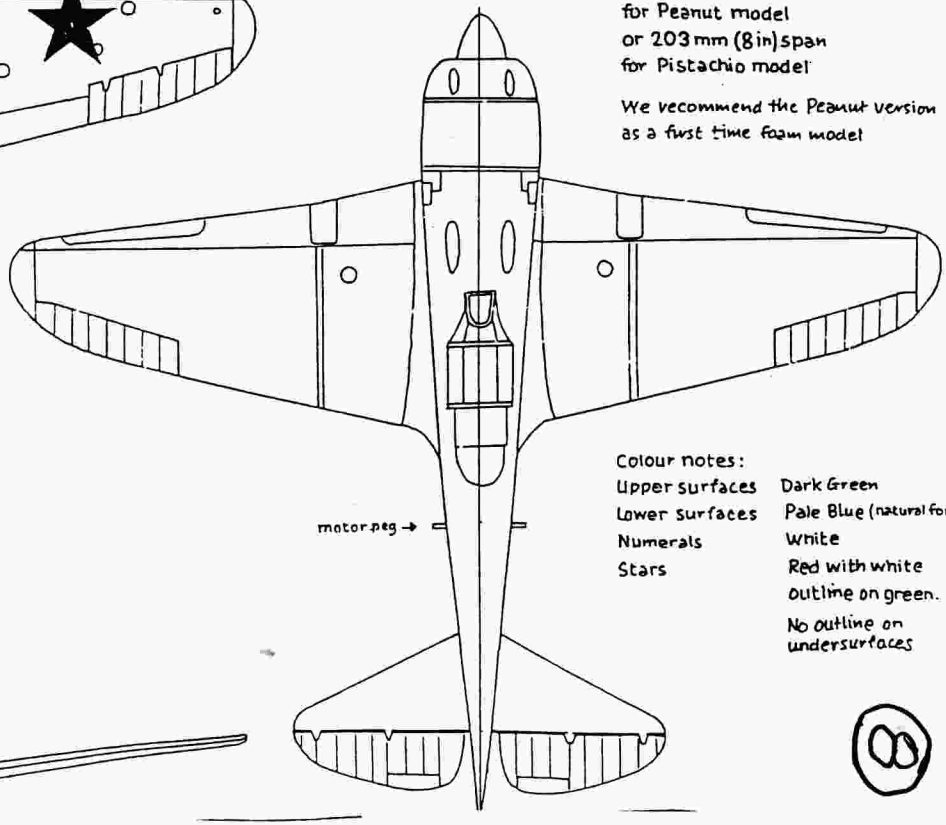


Lavochkin LA7

Enlarge to 330mm (13in) span
for Peanut model
or 203mm (8in) span
for Pistachio model

We recommend the Peanut version
as a first time foam model





Further references:

5: Michael Books: Aircraft of WW2
Profile No 149
Nexus Plans Service (Aeromodeller)
Plan no 2921

Enlarge 141%

Colour notes:

Upper surfaces	Dark Green
Lower surfaces	Pale Blue (natural foam)
Numerals	White
Stars	Red with white outline on green. No outline on undersurfaces

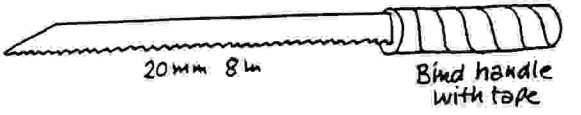
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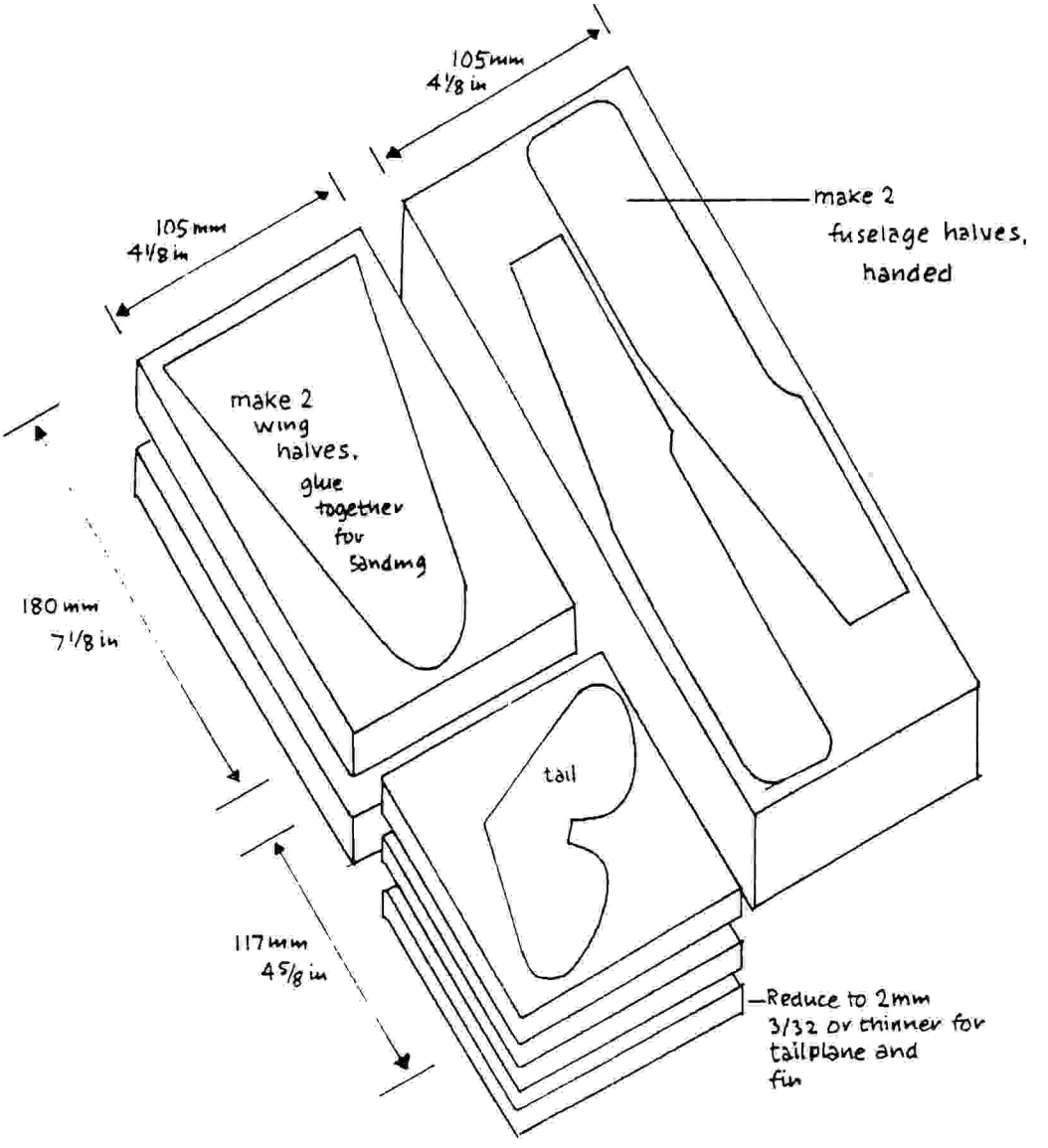
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Foam cutting guide

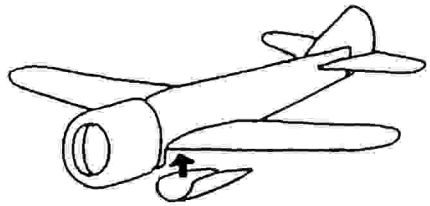
for peanut Lavochkin LA7 featured in the booklet.

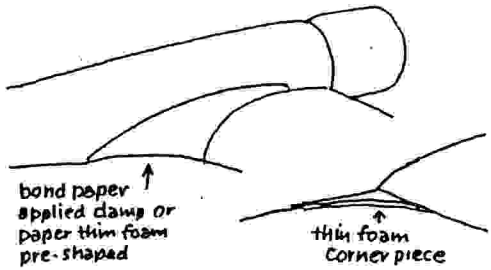
Use hot-wire cutter (see instructions inside on how to make your own)
Alternatively use hack saw blade with pin broken off and tape handle for comfort





Now you have made a foam model aeroplane you can weight the nose and do some test glides. If you have made it very light you will be amazed how slowly it will glide. Aim for a nice smooth glide and note the C/G position should be at approx 25-30° chord.



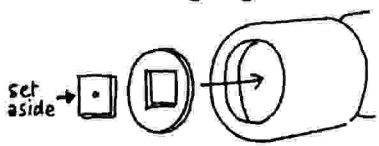


WING FILLETS

These are tricky to make but worth the effort. Some of us work with blue bond paper worked damp with white glue. Others cut paper thin foam and bend it to shape by stretching it in the fingers (very clever).

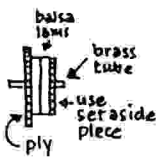
NOSE DETAIL

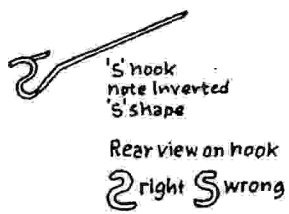
For a radial engine cut a 1/32 ply disk to fit the nose aperture and glue in place, recessed slightly.



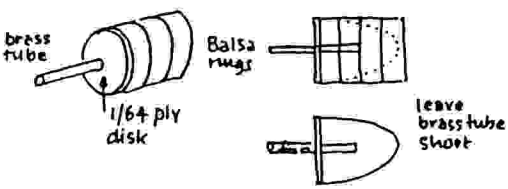
Make the nose bearing from laminated hard sheet balsa with ply facings.

Form an 'S' hook in piano wire to fit the brass tube and put aside.



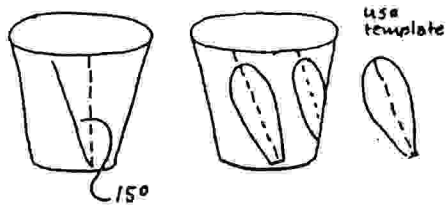


Make a blank for the spinner and 'turn up' the spinner in an electric drill. Alternatively cut and sand to shape.



Prop blades are cut from Yogurt cartons, or cream tubs. Don't chose the thinnest but the slightly firmer variety. You can get 6 blades from a carton.

Mark a vertical on the pot and step off 15° to the left (for a prop that will rotate anti-clockwise). Use a template to mark out the blade shape and cut with scissors. A good blade shape can be got from a Peck or Tern prop, but make the root a little wider to prevent weakness at the root. The natural curve of the pot will provide the correct helical shape to the blade.



Peanut prop
128 mm approx (5 in) diameter

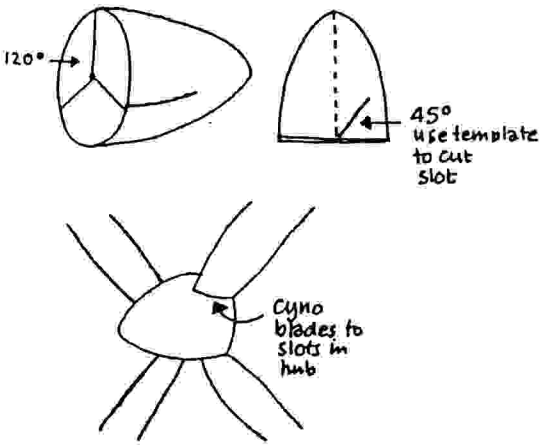
Pistachio prop
80 mm approx (3¼ in) diameter

(11)

For a 3 bladed prop mark-up the spinner at 120° and step off an angle of 45° from the vertical, using a template.

Cut a slot for the blades with a scalpel trying to keep a true angle as you cut. You might want to make a rough jig.

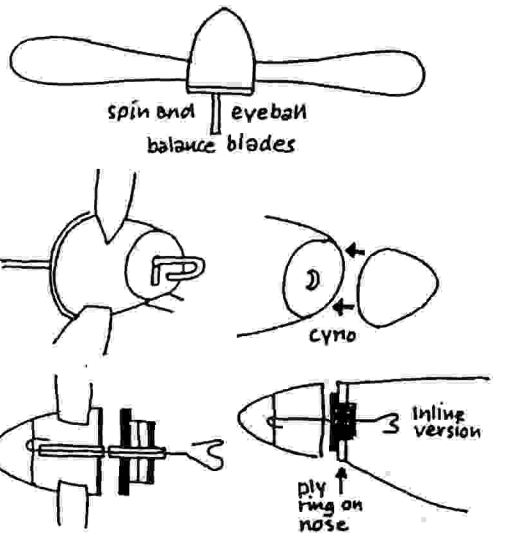
Fix the blades with a drop of cyno after first spinning the prop and getting good alignments and symetry.



Cut off the extension of the brass tube behind the spinner and assemble the prop and nose block as in the diagrams.

Using this method we have made props with from 2 to 5 blades as required.

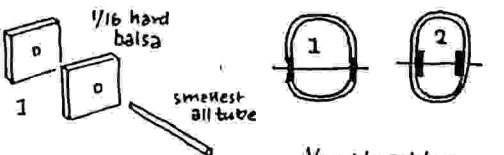
For inline engine types adapt the method slightly to suit.



REAR MOTOR PEG

We find it helps the c/g to place the rear peg not too far back. As a guide we would place the peg half-way between TE of wing and LE of tail.

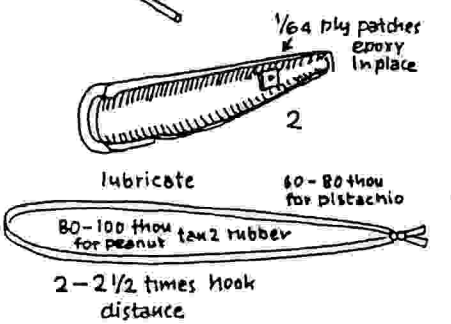
We have used two methods: (1) make small squares of 1/16 hard balsa, and let these into the sides with a sharp scalpel. or (2) Before you join the two halves epoxy squares of 1/32 ply in place. Drill the holes to suit the smallest all tube used for the peg.



RUBBER

Use Tan2 rubber, available from SAMS, in thicknesses from 20 thou up to 1/4 in. As a guide a peanut of average weight will require rubber of approx 80 – 100 thou. but it all depends on weight and drag. The only way is to try.

Use a single loop approx 2 – 2½ x the distance between prop and the rear peg. and lubricate lightly.

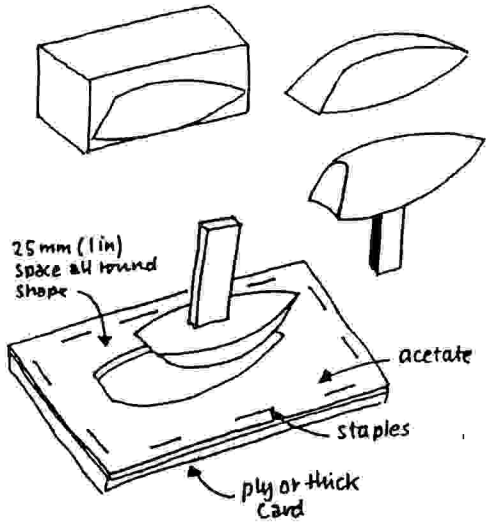


CANOPIES

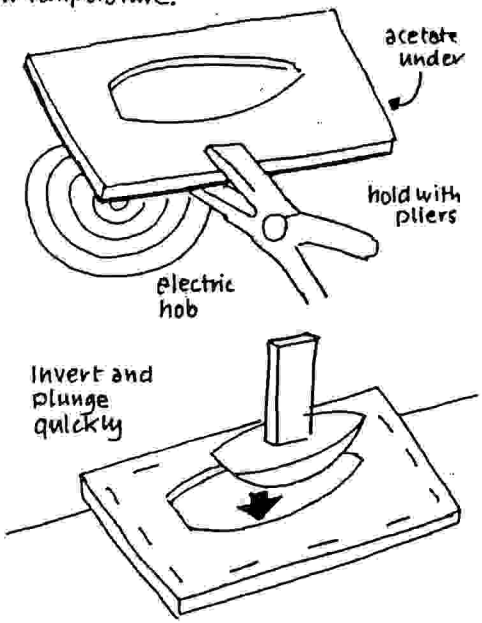
Carve a balsa pattern for the canopy and finish with fine sandpaper. Do not paint or seal the pattern.

Mount the pattern on a handle and make a base plate from ply or even thick card. The apperture in the base should be 2mm (3/32) wider all round than the pattern. Round the edges of the apperture.

Choose a piece of moulding quality acetate (old bubble pack) or clear polystyrene and staple it to the base.



Invert the base over an electric hob, wait till the acetate smokes and sags then quickly turn over and plunge the pattern through. Go too far and the acetate will go too thin. Plunge at an angle and it may be thicker on one side. You may need several goes and it helps to use a material that softens quickly, and moulds at a low temperature.



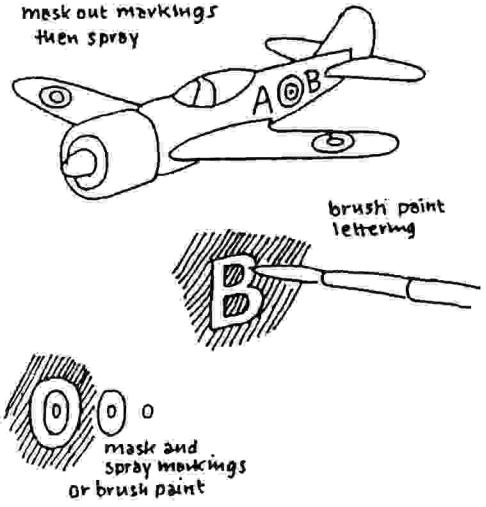
PAINTING & DETAILING

We use Humbrol matt enamels, thinned with white spirit and airbrushed on with very light coats. Do not use gloss paints.

Do not get cellulose anywhere near the foam. It will just melt it away.

Tamia Colour acrylic may be suitable but we havn't tried it yet.

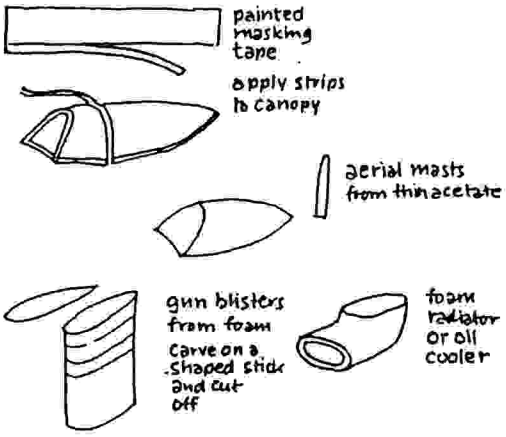
Light colours, like white or cream in large areas, are a problem because the basic blue shows through. On the other hand greys cover very well and the natural blue is a close match to Hellblau used on German or Russian undersides.



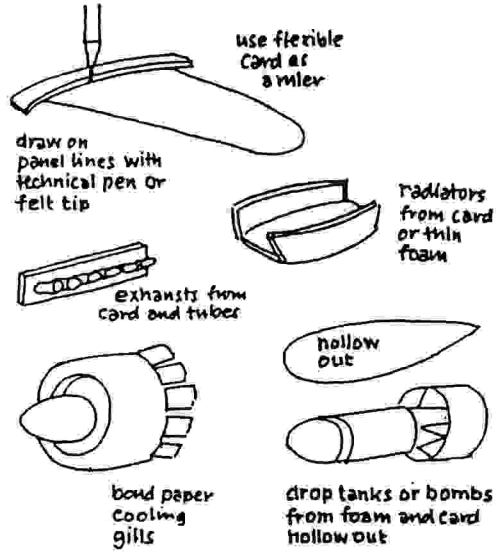
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Cut masks from tracing paper and apply using Spraymount, but do wait a few seconds for the propellant to evaporate. Masking tape is fine. Only a weft of spray colour is applied to help keep weight low.

You could paint by brush if you haven't got an airbrush but you will pay a small weight penalty.



Sometimes after spraying you get a build up of paint that feels rough and powdery. It may rub off on the fingers. When this happens we burnish with paper towel to get rid of the fuzz.



FLYING

Balance the model so that the C/G is 25-30% of the chord, Now try say 350 turns. If it dives try less nose weight, or a little up elevator. It will more likely stall and if it's a bad stall it may even turn on its back. Don't despair- add more nose weight until you get a powered glide. Use left rudder to induce a left turn. Increase turns to say 500, watch very carefully and cure any zooming tendency with more nose weight - unless the model is obviously overpowered in which case use thinner rubber by say 5 thou.

If the model just flops and wallows or won't climb even with 1000 turns it probably needs thicker rubber- increase 5 thou at a time.

If you achieve a steady left turn the model may drop its left wing and tend to spiral in. Try moving the left aeleron down to hold the wing up. Bending the right aeleron up will have a similar effect.

Add more turns. The maximum will be 1000 to 1300 turns. If the model flies well but doesn't climb, experiment with a little up elevator. Cure a power stall with downthrust.

You may be surprised by the length of our motors - 2- 2½ times the distance between prop and rear peg. This is the only way to achieve the longer durations.

Most of our single engine foam models have the C/G well forward (say 1/4 of the chord) and a little up elevator. Rudders are usually giving full left turn while the left aeleron is bent down to hold the inboard wing up in the turn.

A well built foam model may approach a minute duration indoors, flying at scale speed with a great air of realism which is, for us, what it's all about.

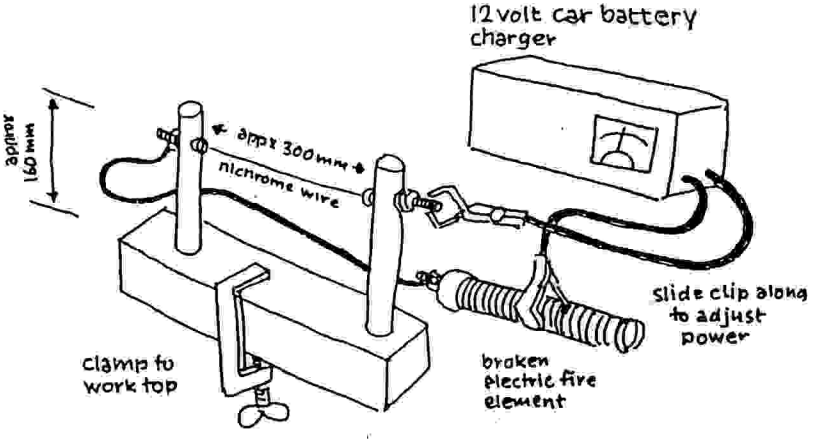
DIY HOT-WIRE CUTTER

Make the uprights from 3/8 dowel and drill into the base. Use the spring in the dowel to make the nichrome wire well taught - like a bowspring.

Use 6 ba brass nuts and bolts to make the terminals. The broken fire elements can usually be got free from your local electrical shop, and you will have more nichrome wire than you need.

Adjust the power by sliding the clip along the coil - it will behave like a rehostat. The wire should be hot enough to cut through the foam without too much pressure and without burning away too much material.

Use card templates both sides of the work to make a guide for the cutter. You will probably want to improve the design and incorporate an adjustable guide to enable square cuts to be made, or thin sheets to be cut.



TAILPIECE - THE NORWICH SCHOOL OF FOAMANIACS

Richard Crossley was the first to be inspired by Peter Frostick's pistachio Spitfire. Now Richard has a range of models from pistachios to peanuts and his 20 inch span Junkers 88 Nightfighter won 2nd place at Interscale 95 after a superb Rog followed by a long cruise and slow landing.

Peter Smart was also quick to see the advantages of foam and he has built a range of models from Albatross to modern gliders which he aerotows with CO2 powa tugs. But Peter's show stopper is his 28 inch span Lancaster which flies well with all four engines running.

David Deadman was reluctant to turn to building in foam because he was bound up in the traditional stick and tissue. Now however he has a collection of WWII fighters and twin-engined bombers. He is particularly pleased with his peanut LA7 which did 1 minute at Olympia, while at the same venue his Mitchell produced 40 seconds from a hand launch.

Together we have been christened the 'Norwich School'.

There is still plenty of room for more progress and experiment, and lots more prototypes to build which is why we hope you will join us and become another foamaniac.

David Deadman. Norwich 1996

(5) SOURCES OF FOAM -

Superior Balsa & Hobby Supply

ORDER HOURS
7:00 AM - 7:00 PM
PST - CA TIME
Monday - Saturday
(800) 488-9525

Quality Balsawood and other fine products since 1970
12020 Centralia St. Unit G Hawaiian Gardens, CA 90716
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$15.00 Min. order We accept Visa, Mastercard, Checks CA sales add 8.25% sales tax
Info (310)865-3220 FAX (310)860-0327 E-Mail balsa@ix.netcom.com
05/96 SASE for complete price list Retail shop hours: 8:00AM to 3:00PM Mon. - Fri.

36" BARGAIN BALSA BUNDLES *

1/32 x 3 (10)	1/32 x 4 (8)	1/8 x 1/8 (46)	3/16 x 3/16 (32)	1/4 x 1/4 (21)	3/8 x 3/8 (13)	1/2 x 1/2 (9)	
1/16 x 3 (10)	1/16 x 4 (8)	1/8 x 3/16 (35)	3/16 x 1/4 (22)	1/4 x 3/8 (17)	3/8 x 1/2 (11)	1/2 x 3/4 (7)	
3/32 x 3 (8)	3/32 x 4 (5)	1/8 x 1/4 (32)	3/16 x 3/8 (22)	1/4 x 1/2 (15)	3/8 x 3/4 (9)		
1/8 x 3 (6)	1/8 x 4 (4)	1/8 x 3/8 (30)	3/16 x 1/2 (18)	1/4 x 3/4 (10)			
3/16 x 3 (5)	3/16 x 4 (4)	1/8 x 1/2 (22)	3/16 x 3/4 (15)				
1/4 x 3 (4)	1/4 x 4 (3)	1/8 x 3/4 (15)					
3/8 x 3 (4)	3/8 x 4 (2)						
1/2 x 3 (3)	1/2 x 4 (2)						

$2.95 per Bundle

( ) Denotes qty per bundle - * Some Stains Wormholes Irregulars

FOAM SHEETS

2" WHITE	1.0 lb. Density 12" x 24"	1.75
2" WHITE	1.0 lb. Density 24" x 48"	6.30
4" WHITE	1.0 lb. Density 12" x 24"	3.50
4" WHITE	1.0 lb. Density 24" x 48"	12.75
2" BLUE	1.6 lb. Density 12" x 24"	3.65
2" BLUE	1.6 lb. Density 24" x 48"	13.28

Nichrome Foam Cutting Wire - 8 feet - $3.00

$8.00 HAND'G + OVERSIZE SHIP'G CHARGE

Peanut & No-Cal Scale Postal Meet

Also send in your times for Pistachio Inter Gnats + MAL PEANUT

Our annual winter postal contest will start on Nov. 1, 1996 and end on April 30, 1997. Entries postmarked after May 1, 1997 will not be accepted.

As usual there will be four classes, or wings. Indoor Peanut, Outdoor Peanut, Indoor No-Cal and Outdoor No-Cal. All you have to do to enter is fly your model, time it, and send the name of your model, the flight time, what wing you flew it in and your name to FAC-GHQ, 3301 Cindy Lane, Erie, Pa. 16506. You may enter as many models as you wish in any of the events. Every time you better a previous time with a particular model send the time in. Contest times also count.

GHOST SQDN. FLY IN OUR POSTALS
1. MAL PEANUT
2. BAY STATE "
3. PISTACHIO INTER-GNATS
4. FAC PEANUT
5. FAC NO-CAL
MAKE THE C/D HAPPY!

FAC BAY STATE SQDN - WINTER POSTAL - SEND RESULTS TO MIKE

MIKE NASSISE
22 GREENFIELD STREET
SO. EASTON, MA 02375

Our next postal contest will be for Peanut Scale models and it will run through April 30, 1997. As usual, we'll have two divisions, only this time they will be indoor and outdoor. Get those little ships airborne, Peanuteers, and send your times into squadron headquarters as soon as possible so we can publish them in the newsletter.

MORE ON FOAM FROM GENE STUBBS - BOEING HAWKS'

Blue foam – I finally got myself a piece of the so-called 'blue foam' I keep hearing about. It is construction insulation, and is available at Home Depot and probably most other building materials places. They sell it in 2

KING ORANGE INTERNATIONAL 1996/FAC

2nd ANNUAL FAC WINTER OUTDOOR CHAMPIONSHIPS

(16)

PALM BAY, FLORIDA

DEC 28th, 29th, 30th, 1996

INDOOR FLYERS CAN DRIVE TO PALM BAY ON MONDAY FOR A DAY OF FLYING ACES

Once again the **Mosquito Squadron**, commanded by Steve Bacom, will sponsor the 2nd annual **FAC Winter Championships** in conjunction with the 43rd annual FMA King Orange Internationals. There will be 15 FAC events in which prizes will be awarded through third place. A separate FAC high point trophy will also be awarded in the FAC events. Flying will be from 7AM to 5PM each day except Dec. 28th in which flying will be from 7AM to 3PM. Mass launch events will be flown at noon each day. Scale model judging and display will be conducted at the Palm Bay Days Inn on Saturday the 28th beginning at 6PM. You are urged to present your scale models at that time as judging time will be limited during flying time at the field so that squadron personnel will be free to run the meet. You must show proof of scale in order to garner the necessarry 45 points for the mass launch events. You can not enter Dime Scale models in the Golden Age event. Mass launch models will be required to use the 15% rubber rule. For information contact Steve Bacom at 836 Banbury Dr., Port Orange, FL 32119, phone (904) 788-7309. Days Inn, 4700 U.S.Hwy.1. Palm Bay, FL 32905. Phone 1(800) 777-6044, 1(407) 951-0350. Ask for King Orange rates.

SCHEDULE OF EVENTS

Saturday DEC 28th	Sunday DEC 29th	Monday DEC 30th
Embryo Endurance	FAC peanut Scale	FAC Rubber Scale
FAC No-Cal Scale	FAC Jumbo Scale	FAC Power Scale
FAC OT Gas (Elec/CO^2)	FAC Golden Age	FAC Dime Scale
Old Time Rubber	Old Time Stick	WWII Mass Launch
Greve/Thompson Trophy Race	WWI Mass Launch	FAC Giant Scale

x 8 foot sheets in several thicknesses. I got a 1 1/2 in. thick slab of it for about $8.00. Bruce Kimball uses it for glider wing cores, and the Europeans are carving complete Peanut scale airplanes out of it! It is "extruded Styrofoam", which is quite different from the Styrofoam you find as packing material. The main difference is that the blue foam has no bead structure – it's a continuous material with very, very fine pores. It has a density of 1.6 lb/ft^3. It is great for turning wheels or carving complicated scale parts like cowlings, and can be sanded to a fine finish and painted.

IS THIS YOUR LAST HANGAR PILOT? SEE P. 18

Jack Fikes "Dime Scale" kits are now available from Penn Valley Hobby Center, 837-B West Main Street, Lansdale, PA 19446. $2 will get you a complete catalog of F/F products, kits, and supplies. They also carry R/C and control line.

HORSES ORIFICES:

(17)

NOTE INDOOR MODELER

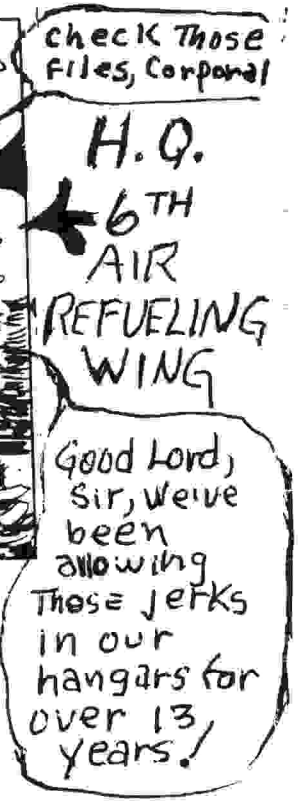
Bureaucracies go through a life cycle. First they create all kinds of paperwork to keep themselves (and you) busy. Of course they don't have enough personnel to keep up with the deluge of work they have created . . .



The time finally comes when the bureaucracies get so large that no one knows what anyone else is doing . . .



They have to hire more workers, buy more desks, rent more space, and computerize so they can "serve the public better." *Translation:* They need more of your money so they can keep growing.





CITY OF MIAMI BROKE FACES 72 MILLION SHORT-FALL IN 1996.

TALLAHASSEE TO OVERSEE MIAMI FUNDING. THE CAT WILL WATCH THE CANARY

NEXT MEET

DEC 28,29 1996 9-5

C/D RICH MACENTEE

1-941-729-1524

12:00 SAT. HOT CAKES MASS LAUNCH

2:00 SAT. ANY PEANUT M/L

5:00 SAT. FLYING ACES MASS LAUNCH - BIPLANES FOR FAC KANONE

2:00 SUN. COCONUT MASS LAUNCH

BRING AMA CARDS

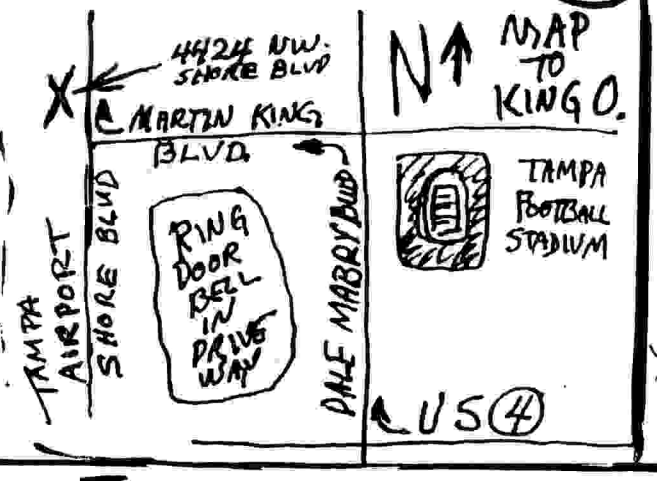
TAKE A NEW YEARS HOLIDAY IN FLA.

MIAMA-DELTA KING ORANGE INDOOR

70 FEET CAT III FLAT UNOBSTRUCTED CEILING - Good SITE

TWO FULL DAYS OF "COURTEOUS" FLYING FOR EVERY TYPE OF INDOOR MODEL. ALL EVENTS ALL DAYS. SIXTEEN HOURS OF FLYING. NO WAITING FOR YOUR EVENT TO BEGIN OR HURRYING TO GET IN A FLIGHT BEFORE IT'S OVER. NO ELECTRICS, PLEASE.

18



FOR THOSE WHO ARE REALLY TRYING TO GET A GOOD INDOOR SITE I HAVE SOME ISSUE 156 HANGAR PILOTS TO AID YOU IN YOUR QUEST



Is There a red X here?

LAST ISSUE!

TIME TO RE-UP ALL YOU HANGAR PILOTS! and when you do, be sure to include a note, or some plans and 3-views. Let us know what you've been up to.

One year.....$12.50
Two years....$24.00
Canada.....$14.00 (New Postal
Overseas.....$15.50 Rates)

Send to: Dr. John Martin 2180 Tigertail Ave Miami, FL 33133 USA

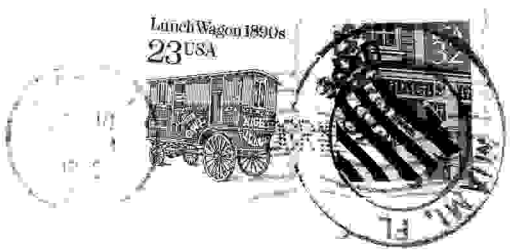
WHAT'S ON IN FREE FLIGHT

DECEMBER 15 MIAMI DADE SOUTH COLLEGE. Trim Session and Dart Mass Launch.NOON To 4PM
Note: Above meet is 12 Noon to 4 PM, not 9 to 5 OK.
DECEMBER @ 28,29 TAMPA. DELTA AIRLINE MAINT. HANGAR,Tampa Airport. OK
King Orange Indoor (Mass Launch BIPLANES) CD Rich MacEnteei-941-729-1524
DECEMBER 28,29,30 Outdoor King Orange,Palm Bay. CD Jerry Wagner 941-474-4959 OK
JAN. 19..Last Day for Pistachio Inter-Gnats Postal
X Jan. 25 26. MIAMA INDOOR MEET #4 MACDILL AFB..Tentative. - CANCELLED
X MARCH 8,9 MIAMA INDOOR MEET #5 MACDILL AFB...Tentative. - CANCELLED
APRIL 12,13, St Petersburg. MIAMA INDOOR MEET #6 US COAST GUARD HANGAR.

FOR DATES OF POSTAL MEETS - SEE PAGE 15

THE HANGAR PILOT

EDITOR: DR JOHN MARTIN, JR
2180 TIGERTAIL AVE MIAMI FLA.
33133



JIM MILLER
30700 Wekiva River Rd.
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32776>9883