AeroFlyte
Piper Pacer
Full Plan

SEP 2017

SCALE 1:1

All wood 1/16" (1.5mm) Balsa, unless otherwise stated.
Note that for lightness, 1/32" (0.8 to 1mm) could be considered instead.

This plan is based on tracings made from the Aeroflyte Piper Pacer kit (Nr. 144). After finishing this plan I found out that the Aeroflyte "Senior Series" of rubber powered sheet models was actually a copy of part of the "Hales Frogflite" line. Printable coloured (and slightly improved) versions of these models are available from:
http://www.parmodels.com/Plans/Frogflite.htm

Rib Position

mm 0 20 50 100 150

G

F

D

H
2 Off

A

C

B

E

Rib - 2 Off

The main undercarriage shape is based on a best guess. I believe this one is too tall and could be reduced in height, however the nose wheel strut dimensions given on the plan would indicate a tall main gear if the model is to sit approximately level and also clear the 6" propellor.

Commercial hardwood propellor button.

3/32" (2.4mm) sq. Cross Braces Shown as GREEN

3/32" (2.4mm) sq. Cross Braces Shown as GREEN

3mm Dowel Motor Pin

Main undercarriage, (optional) nose leg or tail wheel leg from 0.8mm (21 gauge) spring steel.

Strut
4 Off

Wing Outline Shown as PURPLE

Cowling Top

Fuselage Top

I believe the propellor which was packaged with the Aeroflyte "Senior Series" kits was a Guillows 6" as standard.

Nose Block 1/4"

3/32" (2.4mm) sq. Cross Braces

D B C A E F G H

Thrust Line

3/32" (2.4mm) sq. Cross Braces

Fuselage Outline Shown as RED

Trim 3/32" (2.4mm) sq. scrap to wedge and bind tail wheel leg to it. Then glue into fuselage.
Omit for Tripacer.

Tail Wheel
2 Off Laminated

L1

L2

L3
2 Off

J

3 Off
Laminated
Nose Wheel

3/4" (20mm) Main Wheels

For optional Tripacer version, bend main wheels back 1 1/4" (32mm) and add nose wheel.

K

M3

M1

M2

A2

A3

All wood 1/16" (1.5mm) Balsa, unless otherwise stated.
Note that for lightness, 1/32" (0.8 to 1mm) could be considered instead.

AeroFlyte Piper Pacer Parts Sheet

SWK

SCALE 1:1 | SEP 2017

K

L1

L2

J

L3
2 Off

Strut 4 Off

Cowling Top

Fuselage Top

Tailplane

Main undercarriage, (optional) nose leg and tail wheel leg from 0.8mm (21 gauge) spring steel.

Nose Block 1/4"

Fin

Wing 2 Off

G

F

D

B

C

E

H
2 Off

A

Rib - 2 Off

M3

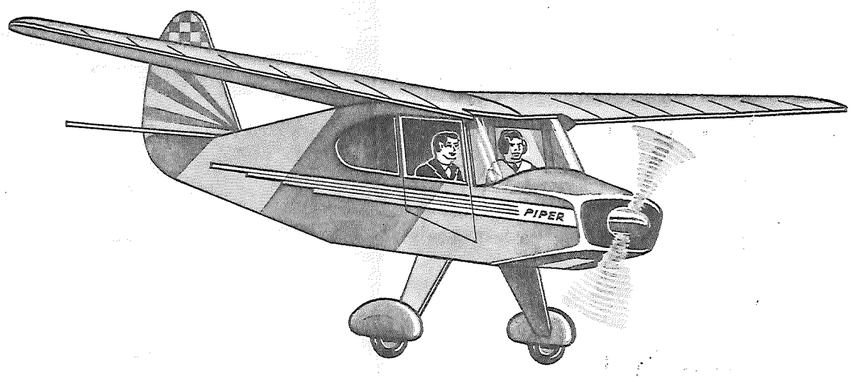
M2

M1

Fuselage
2 Off

Tail Wheel
2 Off

3 Off
Nose Wheel



AERO-FLYTE Reg. Trade Mark MODEL PRODUCTS

Build by Number

PIPER PACER

KIT No. 144

Senior Series

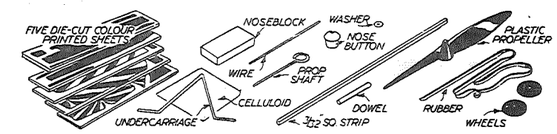
RUBBER POWERED

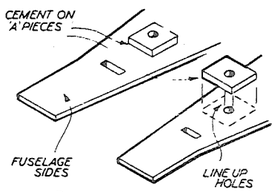
FLYING MODEL KIT

Aero-Flyte fast-drying balsa cements are recommended by leading modellers everywhere. Grade G17 for normal use and new C23 for super-strength.

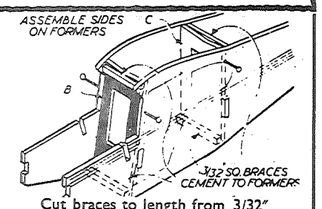
YOUR ASSEMBLY INSTRUCTIONS

IMPORTANT: CHECK AND IDENTIFY YOUR KIT PARTS

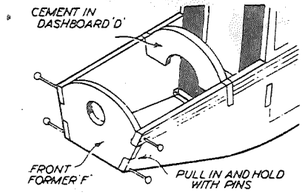




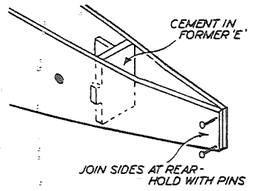
1 Press out the pre-cut sheet parts—free with a razorblade if necessary. Cement 'A' pieces to inside of fuselage.



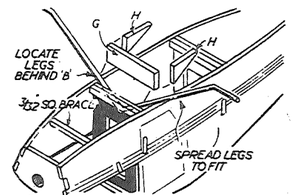
2 Cut braces to length from 3/32" sq. strip and cement across formers 'B' and 'C' where marked. Assemble sides on 'B' and 'C'.



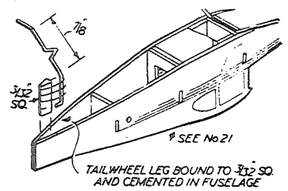
3 Cement on front former pulling in sides at bottom. Use pins or rubber band to hold. Cement 'D' in slots.



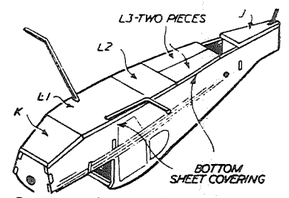
4 Pull in sides and cement together at rear. Cement in former 'E' and check that fuselage is true and square throughout.



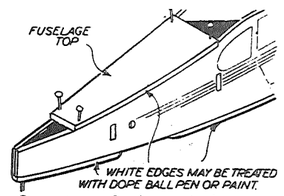
5 Cut and fit 3/32" sq. brace. Bend wire legs open slightly to fit fuselage. Lock in place with 'G' cementing well. Add H, H.



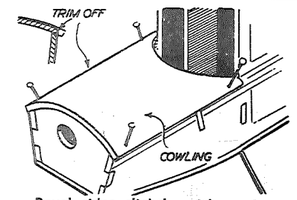
6 Trim piece of 3/32" sq. to fit inside rear of fuselage. Bend tailwheel leg and bind to 3/32" sq. then cement in place.



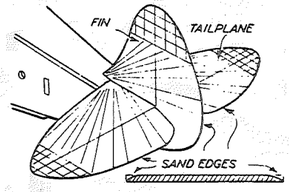
7 Cement on bottom sheet covering K, L and J. Note notches in 'L1' locate over wire legs. L3 does not meet 'J' leaving gap.



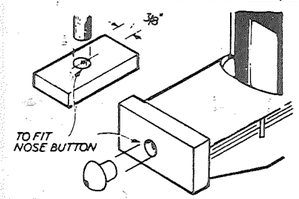
8 Cement on fuselage top level with edge of former 'C', cementing down to brace. Clean up all edges neatly.



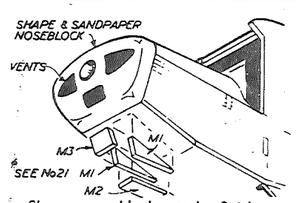
9 Bevel sides slightly with sandpaper, then bend round cowling and cement down. Use pins to hold until set.



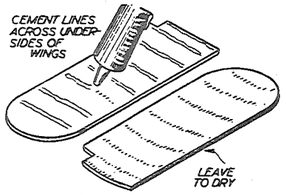
10 Tailplane and fin edges are rounded with sandpaper. Cement tailplane to fuselage. Add fin. Check alignment.



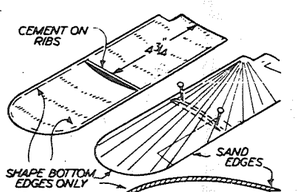
11 Bore a hole in the noseblock in the position shown, using a piece of tube filed to a sharp edge or a drill.



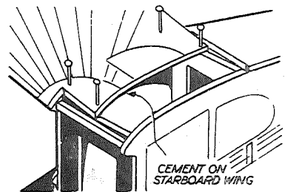
12 Shape noseblock and finish smooth by sanding. Mark on vents with ball pen add 'M' parts to bottom of cowling.



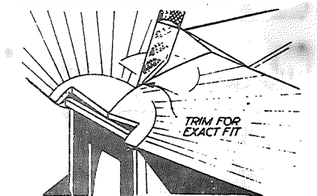
13 Run lines of cement across underside of each wing panel. This will curl up wings into aerofoil section when set.



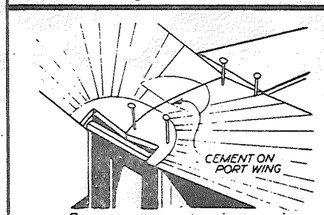
14 Cement on ribs one to each wing at position shown. Edges are then shaped by sanding off bottom edges.



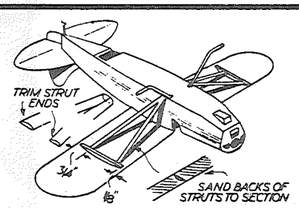
15 Starboard wing can now be cemented to fuselage. Use pins to hold until set. Top shape of formers gives dihedral.



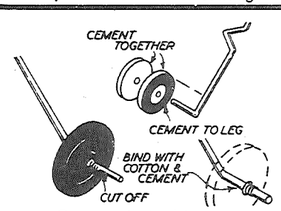
16 Offer up the port wing and trim at centre for perfect fit against edge of starboard wing. Use sharp knife.



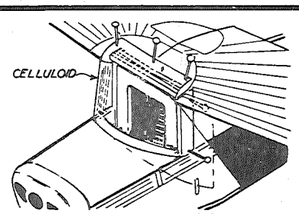
17 Cement on port wing, again using pins to hold temporarily until set. Clean off any surplus cement before hard.



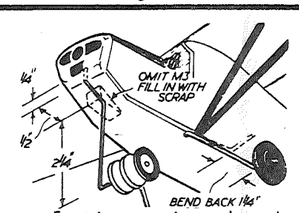
18 Trim ends of wing struts to fit neatly. Sand unprinted sides of struts to section shown, then cement in place.



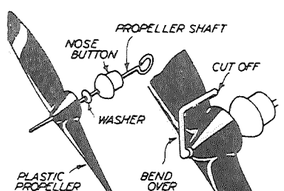
19 Cement tailwheel discs together: push on and cement to leg. Main wheels must revolve freely on wire axles.



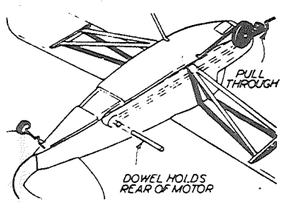
20 Cut and trim celluloid to fit by trial and error. When satisfied, cement in place using pins to hold and locate.



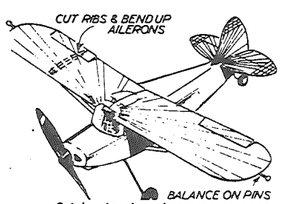
21 For tri-pacer omit rear leg and bend a nosewheel leg to shape shown. Push end into noseblock. Bend main legs.



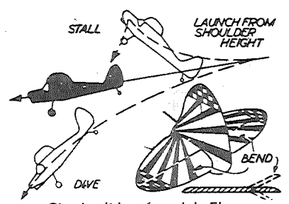
22 Assemble button washer and propeller on prop. shaft. Bend back end of shaft to engage prop. and cut off suprlus.



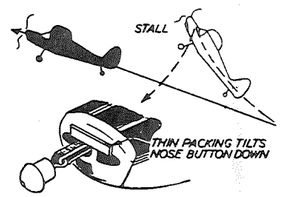
23 Anchor rear of loop with dowel pushed through fuselage.



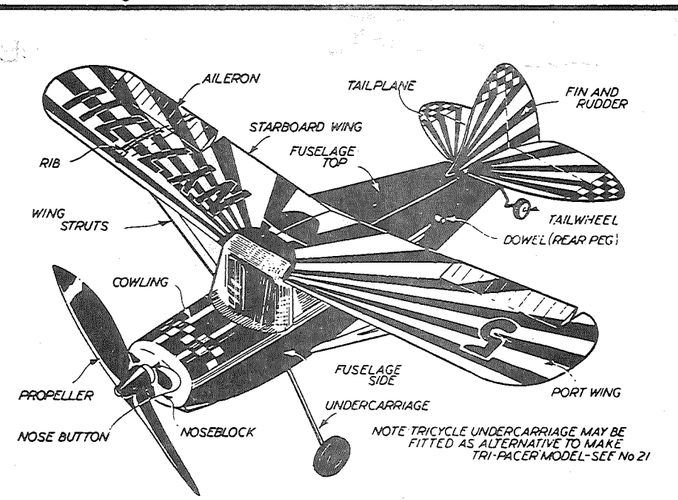
24 Stick pins in wing tips at arrow marks and suspend on finger tips. If model does not balance level add weight.



25 Check glide of model. Elevators bent up to cure dive down to cure a stall. Ailerons adjust turn trim.



26 Stalling under power is cured by cementing thin packing to noseblock to angle line of thrust downwards.



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