

# MAX FAX

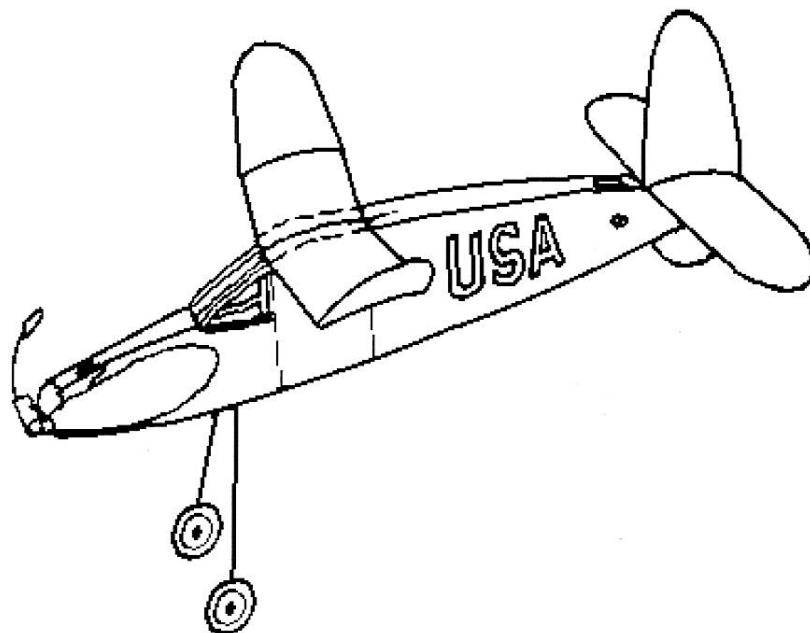


**Journal of the D. C. Maxcuters**

*... home of the dreaded POTOMAC PURSUIT SQUADRON of the Flying Aces*

Editor: Stew Meyers

MAR-APR 2011



**HALF SIZED WAKEFIELD ISSUE**

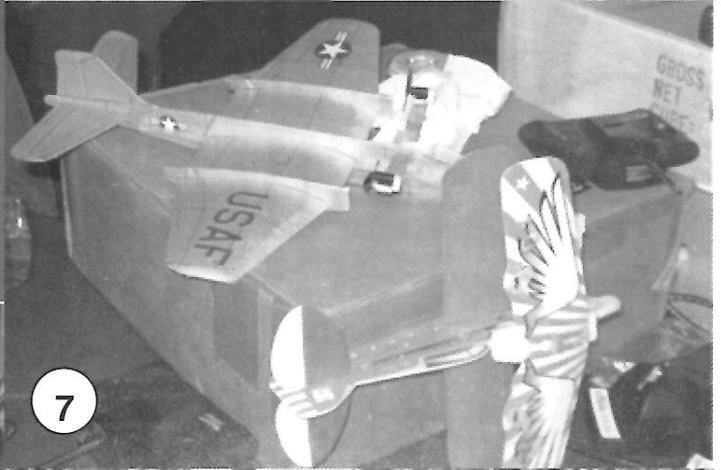
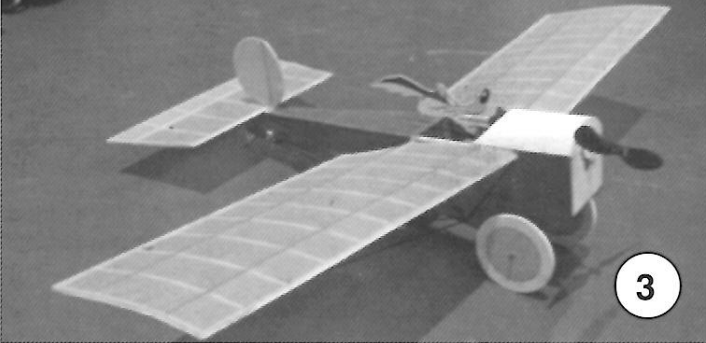
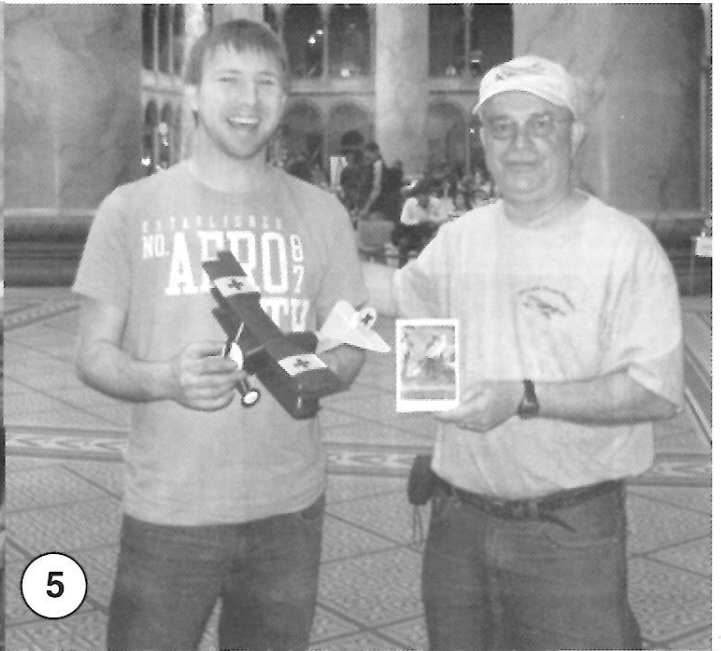
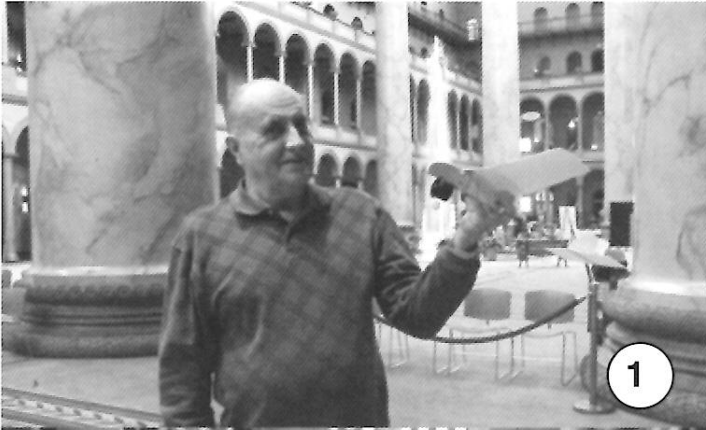
## **COMING ATTRACTIONS**

Flying at the Bauer Community Center  
every Monday 12:30 to 2:15 pm through May.  
You do need a Montgomery County access card.  
Contact Stew Meyers for details or check the website.

KUDZU 2011 a two day meet SATURDAY & SUNDAY May 14 & 15  
Flyer in last issue and on website.

JUNE 22-25, 2011 WESTFAC Mk.III Denver, Co.  
[www.westernfac.com](http://www.westernfac.com)

Non-Nats Geneseo, NY July 13, 14, 15 check web site for details.  
[www.flyingacesclub.com](http://www.flyingacesclub.com) Events listed on page 3.



## MaxFax Jan-Feb 2011

Stew Meyers Editor

### 50% Wakefield Issue

When the guys from Cleveland proposed the 50% Wakefield event, the Maxcuters agreed, as long as the Cleveland guys ran it at the Non-Nats. Therefore, I have been looking at Wakefield designs for this issue. The proposed rules call for 8 oz designs which flew between 1937 and 1953. The early designs look quite reasonable, but some of the post war designs became quite elongated. Further more, many of these had return gears. Some Wakes have diamond or round fuselages. These also don't turn me on, but the slab siders are just the ticket.

Of course there is the ubiquitous 1939 *Korda*. A half sized copy of the plans from the Megow kit fit nicely on our 'B' size format. You will have to change the wing and stab spars a bit 1/16 square scales to 1/32 square and is far to small. A few less 1/16 square would probably be right.

AERO Modeller published some "Half-Sized" Wake designs in the 80's and 90's. (See the SAM 66 rules on this page and compare them to the FAC rules on the next page.) Some of these "Half-Sized" Wakes are pre 1937 and therefore ineligible by the FAC rules, although they look good and if built to the one ounce criteria would be quite reasonable competition for the post 1937 models. I have chosen to include two of the AERO Modeller post 1937 plans, the 1942 *GH 20* and 1949 *Zombie* rearranged to fit on two pages in this issue and ready to build.

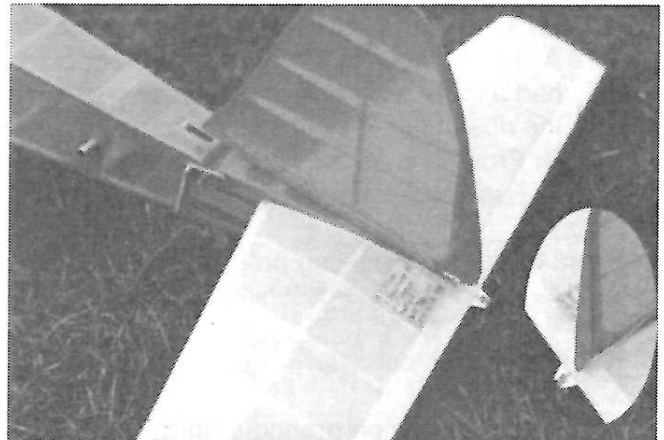
The Zaic year books contain many Wakefield designs. The *Klaus Schmidtberg's* 1937 design, which Don Srull touted, is presented in a partially enlarged form only slightly reduced for a half-sized model. Enlarge these by 150% and you can easily build off the plan.

### Page 2 Photos R/C at the NBM Mar 6, 2011

1. John Krouse with one of his many light R/C models; this one has a ducted fan.
2. Brian Potter was flying a White Monoplane with ParkZone equipment..
3. Closeup of the White Monoplane blown up from a Mooney peanut plan.
4. Paul Stamison with a Plantraco Avionnette HM 8.
5. R/C director Pete Carpenter gives Kiely Mackey the award for the Most Unique/Creative R/C.
6. Kiely's Fokker Dr-I enlarged from the Megow plans in MaxFax.
7. B-57 by Rich Gillis uses Air Hogs motors.
8. Kiely Mackey's neat Fairchild.

### SAM 1066 Half-Scale Wakefield Rules

- 1 Must be a replica of an authentic Wakefield model, pre-1/1/51.
  - 2 Outlines to be accurate 1/2 size.
  - 3 Wood sizes at discretion of builder.
  - 4 Construction to follow original model.
  - 5 Wing sections to reflect original.
  - 6 Wing construction as per original, but multi-sparred wings can have number of spars moderately reduced.
  - 7 Propeller, wooden or plastic, half size of original.
  - 8 Single-blade folder and double-blade folders can be replaced by double blade free wheeler of max 9" dia. U/C fixed, non-retracting.
  - 8 Geared original can be made non-geared (but not vice-versa!).
  - 9 Covering tissue or mylar/tissue (not mylar only).
  - 10 No foam allowed.
  - 11 Mods for DT/motor-peg as for full-size originals. Minor mods acceptable for rear peg instead of traditional hook.
- No replacement models. No division between 4oz and 8oz. No weight or rubber restrictions.
- Flying indoor: Best three from five attempts ROG, to allow for collisions.
- Flying outdoor: Three flights H/L. Max (discretion of CD) 75sec.



This shot of Ramon Alban's rendition of Ron Warring's 1951 *Voodoo* shows the dethermalizer arrangement. The inset shows a rubber band springing the adjustable rudder tab. There is a screw on the left side for adjustment. While the stab is of different construction, the rest of the model is very similar to the 1949 *Zombie*. This adjustable rudder would get a bit fiddley at half-size. A soft wire hinge will suffice. This DT arrangement also allows longitudinal trim adjustment.

More about the *Voodoo* including a pdf of plans for a full sized version at [www.vintagemodelairplane.com](http://www.vintagemodelairplane.com).

**Part numbers for the Pico timer in the last issue contain errors contact me for corrections.**

## HALF-SIZE WAKEFIELD MODEL EVENT

In 1927, Lord Wakefield of Hythe was asked by the SMAE of England to sponsor a trophy for model aviation thus starting a long history of competition between countries that extends to this day. In keeping with this tradition of good will, Gordon Roberts and I would like to propose a new event based on Classic Wakefield's that were flown before the FAI got their hands on it and made it easier for everyone to fly. This was between the years 1937 through 1953. We feel that these models were the epitome of flying in the so-called "Golden Age" of modeling. First, a little history. The rules governing Wakefield models from the mid 30's to the early 50's were as follows :

*Wing Area* to be 200 sq. in., +/- 10

*Minimum Weight* to be 8 oz.

*Cross Sectional Area* of fuselage to be L squared divided by 100, (L=length).

### Rules for the new Half-Size Wakefield event:

1. **Event open to any published 8oz Wakefield from 1937 through Dec. 31, 1952.**
2. **Must be half size, i.e.:**
  - A. **Wing Area** : 50 square inches, +/- a bit.
  - B. **Fuselage cross section:** Length squared /100  
Example: 18" length would equal 3.24 sq. in. cross section
  - C. **Minimum weight:** 1 oz. finished model, empty, *without* rubber.
3. **No messing with plan!** Must use the construction as used on the full sized model. Allowances:
  - A. The number of wing ribs may be decreased to keep the wing loading reasonable. Some Wakefield's had a lot of wing ribs of thin balsa (eg. 1" spacing of 1/32 sheet) so we allow such a model to have half the ribs but of the original thickness to get away from 1/64" sheet.
  - B. Provisions for a D/T, detachable wings and stab are allowed.
  - C. Fuselage construction 1/16" sq.
4. **Prop:** Rigid free-wheeling propellers only. No feathering or folding props even though the original plans called for them. 1 or 2 bladed rigid props of wood or plastic shall be permitted.
5. **Rubber:** No restrictions.
6. **Launch:** Must rise off ground from a three (3) point stance.
7. **Target:** Three (3) – 2 minute max's. Fly off to be one unlimited flight among the competitors.

Gordon and I hope you will find this write up interesting enough to consider the possibility of building some half-size Wakefields. Models of models is not a new idea, but the flying of Wakefield's in this country and abroad was a big deal to many countries and fostered a sense of good will and camaraderie that exists to this day. The frequency of flying of the event should be left up to the FAC or the local chapters to maintain its uniqueness.

Gordon Roberts

David A. Pishnery





## MINI GH 20

G. F. Elsegood

The search for another scaled-down Wakefield was inspired by the half-size *Zombie* plan featured in the February 1984 *Aeromodeller*. A friend and I each built one, and we were delighted by their flying characteristics. Inspired, I wanted another vintage Wake and eventually found the right model in G.W.W. Harris' GH20, which dates from 1942. The construction follows the full size exactly; material sizes have been reduced to the nearest practical sizes available.

### Fuselage construction

Build two sides over the plan using hard 1/16sq. for the longerons and softer wood for the uprights. Cut out formers 1 and 4; fit and check for squareness and allow to set. Fit the nose former, glue rear fuselage ends together and then fit in the remaining 1/16sq. cross pieces. If you decide to fit the undercarriage bend it up from 20 swg wire, glue in place and strengthen by wrapping two layers of tissue around it and former 1.

### Wings

Use a ply template to cut out the ribs from the softest wood possible. There are plenty of them so the wing will be adequately strong, but it is important to keep the weight down. Make the tips from bamboo; I used strips from an old table mat cut down to about 1/32sq. Make a thick card template of the tip; heat the bamboo near a candle flame, and when it softens wrap it round the template. Repeat the process if necessary until there is no tendency for the bamboo to spring away from the template, otherwise the tip may distort the wing when fitted. Do not add the 1/16 sheet centre rib yet. Prop up the wing tip to give 2in. dihedral under each tip and glue in the dihedral keeper between the 1/16sq. spars. Complete the wing by fitting the 1/16 centre rib, which is in two pieces.

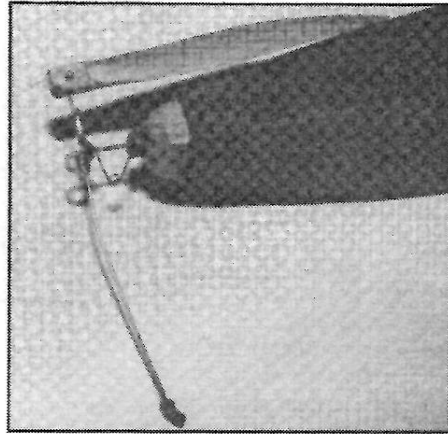
### Tailplane and Fin

The tail is identical in construction to the wing, but it has only one 1/16sq. spar. The fin outline is assembled from 1/32in. sheet, and the 1/16sq. spar and 1/32 x 1/8in. ribs are added in straightforward fashion.

### Noseblock and prop assembly

Laminate 1/8in. sheet for the nose block, facing the locating plug with the piece of 1/64in. ply cut out of the inside of the nose former. Drill out carefully and fit the 20swg all tube bearing. Originally I flew the model with a seven-inch plastic propeller, in which form the performance is identical to that of the *Zombie*. By fitting the folding prop the glide improves dramatically. It is well worth the extra effort involved. Carve the blade from very soft block, and smooth and rub in two coats of balsa cement which should give a very smooth, hard surface for a minimum of effort. Glue the 1/64in. ply faces, drill and bush with 20swg. al. tube. Bend up the wire for the

prop shaft and balance and solder together. Assemble, not forgetting the cup washers/thrust race and the spring; bend the end of the shaft as shown on the plan and cover with thin plastic tubing. Balance the propeller by wrapping a short length of thin resin cored solder round the end of the balance shaft. Arrange for the prop to fold along the top of the fuselage and fit the stop.



*The prop assembly is a simple affair. There's only one blade to carve - what more could you ask!*

**[Forget about folding the prop for FAC contests.]**

### Finishing

Lightly sand the airframe and cover with lightweight modelspan or jap tissue. Cover the bottom of the wings first to ensure that the tissue sticks to the undercamber on each rib. I use clear dope as an adhesive. Water spray and give two coats of clear dope thinned 50/50. Check for warps, removing by steaming if necessary.

### Flying

Test glide and adjust by first moving the wing back or forward by altering the position of the 1/16in. dia. bamboo wing retainers. The tailplane incidence may also need adjustment. Mine needed 1/32in. packing under the trailing edge. When satisfied with the glide, wind on some turns and adjust for optimum flight pattern by adding side and/or downthrust to the nose block. The little GH20 is the most forgiving rubber model I have ever built; it's very stable and is equally happy turning left or right.

It is a good idea to add your name and address because this miniature Wakefield is quite efficient and will disappear very rapidly if there is even a hint of a thermal around.

Why not make this your introduction to mini Wakefields? Incidentally - and ironically - it is a fact that after ten years of flying thermal soarers, the longest flight I have ever had, with any kind of model, was forty-five minutes achieved last year with a 24 inch version of the 1943 Flight Cup Winner, so the potential is there...

# National Building Museum – March 6, 2011

We had 24 registered flyers for Freeflight and 14 for RC.

Bostonian, Phantom Flash, and WW II NoCal each had the most entrants with 11.  
Grand Champ was Steve Fujikawa.

We added two events for the radio control end to keep things interesting.  
One was for the slowest flying model and the other was for the most unique or creative airplane to make a flight.

14g. Bostonian ML (11 entrants)		
1	Steve Fujikawa	Decathlon
2	Henry Guth	Boatstonian
3	Ross Summers	Bostard

P-Nut Scale ML (7 entrants)		
1	Steve Fujikawa	Lacey
2	Bobby Russell	Ganagobie
3	Bob Bissett	?

Phantom Flash ML (11 entrants)		
1	Henry Guth	-
2	Walt Farrell	-
3	Mike Escalante	-

WW II No-Cal ML (11 entrants)		
1	Steve Fujikawa	P-39
2	Henry Guth	FW-190D
3	Dave Mitchell	Avenger

Parlor Fly ML (9 entrants)		
1	Stew Meyers	-
2	John Appling	-
3	Bruce Clark	-

Helicopter ML (8 entrants)		
1	Al DeRenzis	Augusta
2	Terry Slattery	Unicopter
3	Mike Escalante	-

Limited Pennyplane (2 entrants)		
1	Paul Spreiregen	3:26
2	Dave Lacey	1:49
3	-	

Ready-to-Fly (3 entrants)		
1	Walt Farrell	3:11
2	Sharon Appling	2:50
3	Terry Slattery	2:32

A-6 (2 entrants)		
1	Walt Farrell	259
2	Mike Escalante	158
3	-	

FAC No-Cal Profile Scale (6 entrants)		
1	Steve Fujikawa	427
2	Wally Farrell	400
3	Henry Guth	274

FAC Dime Scale (3 entrants)		
1	Steve Fujikawa	226
2	Wally Farrell	87
3	Stu Meyers	20

Slowest Flying RC		
1	Paul Stamison	Night Vapor
2	Colin Quinn	Night Vapor
3	Dennis Adams	Vapor

Most Unique/Creative RC		
1	Kiely Mackey	Triplane
2	Chuck Duncan	Taube
3	Rich Gillis	Canberra

## ZOMBIE

Bill Dennis

Living as I now do in the middle of Devon, I am surrounded by miles of countryside. The bad news is that it is divided into very small fields by very tall hedges! I was looking for a model suitable for flying in a confined space but with a bit of character and I was inspired by the SMAE/SAM indoor event for half size Vintage Wakefields. Three years ago I had built a 'Zombie' which flew extremely well at the Nationals, but was last seen heading toward Skegness at about 2,000 feet. Hoping that a small version would be successful too, I set to work and managed to finish it in three evenings. I fly my model outdoors, but more careful wood selection and a balsa prop would reduce the weight considerably and make it a good indoor flyer.

### Fuselage

It was a long time since I had built with 1/16in. square. I found the most accurate way to pin the longerons down was to use scraps of 1/16in. balsa over them. When assembling the two sides take care that the spacers are accurately cut since these thin longerons are easily distorted. The best way is to fit the spacers midway between F2 and the nose and tail and then trim the others to suit. Note that the fairing over the tailplane is fitted after covering.

### Flying surfaces

No special comment required here, except to extol the virtues of basswood (available from SAMS, see classifieds) for making very strong, thin and light tip laminations. Bending is made easier if the strips are first soaked in a 50 per cent solution of household ammonia — preferably outside! Two sets of ribs can be made in minutes by the sandwich method, but start at W2, since the thick W1 rib will distort the taper.

### Covering

Use Jap tissue for the wings and tail, and lightweight modelspan for the fuselage. If, like me, you haven't used Jap before, you will find it somewhat different to model-span. Firstly, it is relatively impermeable, so you cannot attach it by doping through. Instead, use thinned PVA on the structure, or dope. Secondly, all the shrinkage occurs during the water shrinking process and gives a nice smooth finish, while the dope has relatively little effect.

### Flying

My model was nose heavy, so I had to ballast the tail to get the CG on the main-spar. I powered my model with 12 strands of 1/16 in. x 1/24 in. rubber, which made it fly like a real Wake should, with a zippy climb. With a loop of 1/4in. performance should be a little more sedate. In either case the model is very stable. Hand launches with a model of this size will not tell you much about the glide, so judge this on low power flights. With the tail fairing it is more convenient to trim the glide with ballast, although the prototype flew with no adjustments, except for 1/32in downthrust.

Lifted from the February 1984 AERO Modeller.

## D. C. MAXECUTERS

### CLUB OFFICERS

President: Stefan Prosky 414 11th Street SE.,  
Washington, DC 20003  
Secretary: David Mitchell 230 Walnut St. NW.,  
Washington, DC 20012  
Treasurer/Editor: Stew Meyers, 8304 Whitman Dr.,  
Bethesda, MD 20817

**MEETINGS** - The D.C. MAXECUTERS hold meetings at 8:00 pm on the first Tuesday of every month at the Riderwood Village Square Clubhouse.  
3148 Gracefield Rd Silver Spring, MD 20904  
A map is on the website.

**MEMBERSHIP** - Dues for membership in the DC MAXECUTERS are \$20 per year for residents of the USA, Canada, and Mexico, and \$25 for all other countries. You may now use **PayPal** at the website:  
**www.dcmaxecuter.org**

Your mailing label indicates the year and month of the last issue of your current membership. A red "X" in the box below is a reminder that your dues are due. Send a check, payable to the "D.C. MAXECUTERS", to the treasurer, Stew Meyers.

**PUBLISHING DATES** - Six issues of MaxFax are sent each year as close to the nominal dates as possible, but since this is a volunteer publication nothing is guaranteed except that six issues will be sent to all members.

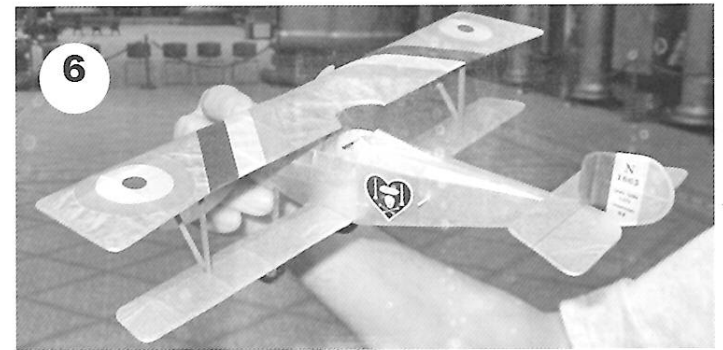
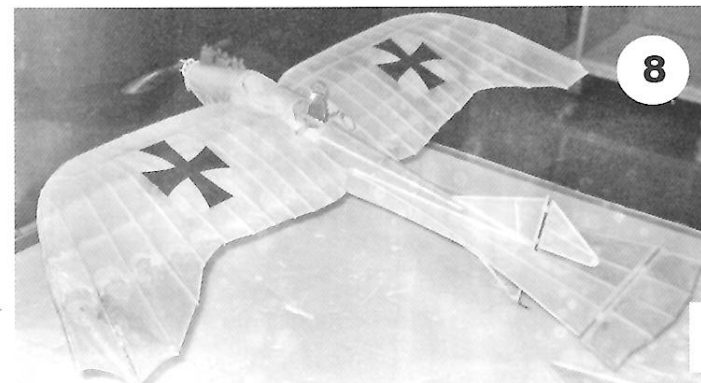
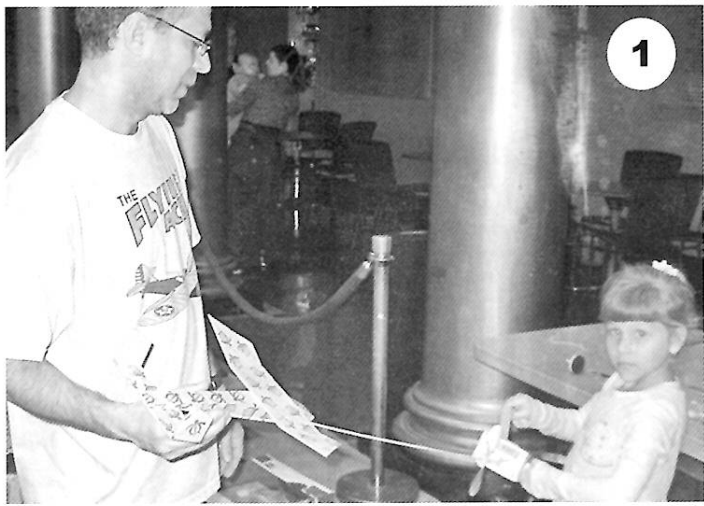
**CONTACTS** - Material for the newsletter and membership questions should be addressed to Stew Meyers phone 301-365-1749. Email gets immediate attention. [stew.meyers@VERIZON.net](mailto:stew.meyers@VERIZON.net)

### Photo captions Page 19

Photos from Glen Simpers and Dave Fuller.

1. Mike Escalante holds while his daughter winds.
2. A full table of Delta Darts were produced during the morning building session with the Maxecuters.
3. Dave Mitchell is not taking any chances of getting beamed while demonstrating launch technique.
4. Erika Escalante launching her Pussy Cat.
5. Henry Guth was the winner of the Phantom Flash event.
6. Mike Escalante's Peanut Nieuport 11.
7. One of the Delta Dart builders is assisted by Wally Farrell.
8. At the R/C end of the NBM, Chuck Duncan's Taube is always a favorite
9. The three Parlor Fly winners.  
1 Stew Meyers, 2 John Appling,  
3 Bruce Clark. Dave Mitchell had Wally proxy fly his to no avail.







D. C. MAXCUTTERS  
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## CONTENTS:

### HALF SCALE WAKEFIELDS

KORDA'S 1939 WINNER  
 MEGOW KIT PLAN

G. W. HARRIS' 1942 *GH20*  
 - COMPLETE PLAN

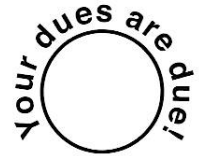
RON WARRING'S 1949 *ZOMBIE*  
 -COMPLETE PLAN

KLAUS SCHMIDTBURG'S 1937  
 -REDUCED PLAN

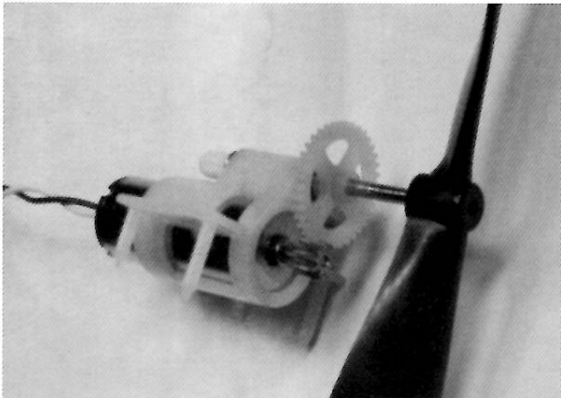
MARCH NBM  
 RESULTS AND PICTURES

MIKE ESCALANTE 201202  
 212 DIVISION AVE  
 HAGERSTOWN, MD 21740

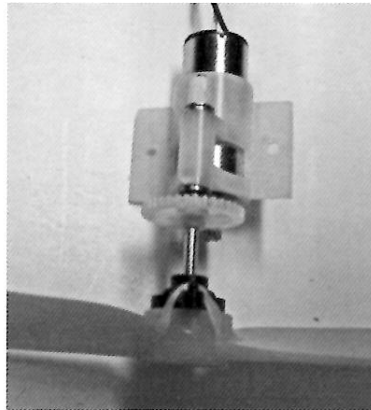
**OR CURRENT RESIDENT**



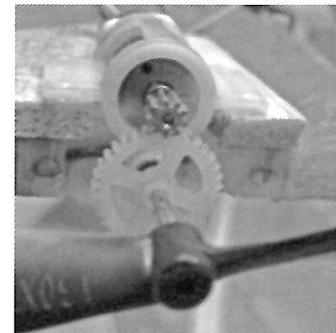
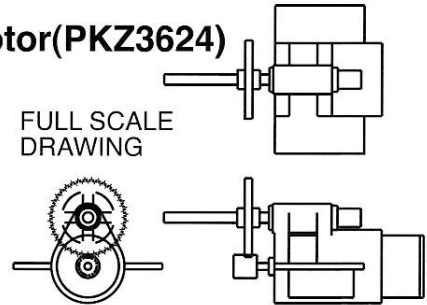
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**Go to MaxFax on the website**  
**[www.dcmmaxecuter.org](http://www.dcmmaxecuter.org)**



ParkZone P-51 motor (PKZ3624) as it comes. note the mounting spikes. You could just glue it to foam or balsa. Stock P-51 prop shown.



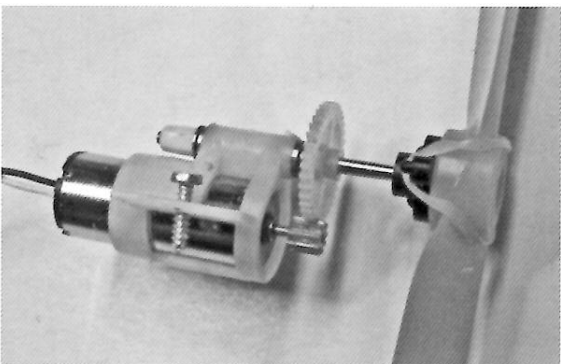
Top view of mount showing #52 holes centered on tab 3/32" in from edge, resulting in 5/8" between holes. A screw mount simplifies thrust adjustment.



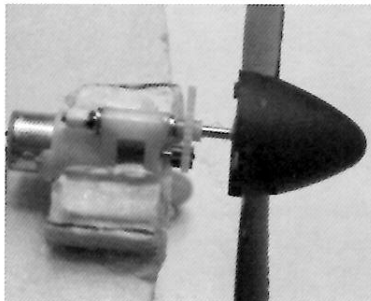
^ It's roughly 1/4" from the tab to the center line of the shaft. The photo above shows shims to get the shaft on the fuselage centerline.

< It's a hair over 3/16" from the tab to the bottom of the gearbox. The photo shows a motor with shims to clear the gearbox mounted on a flat surface.

These examples are simply glued rather than screwed. A screw is better.



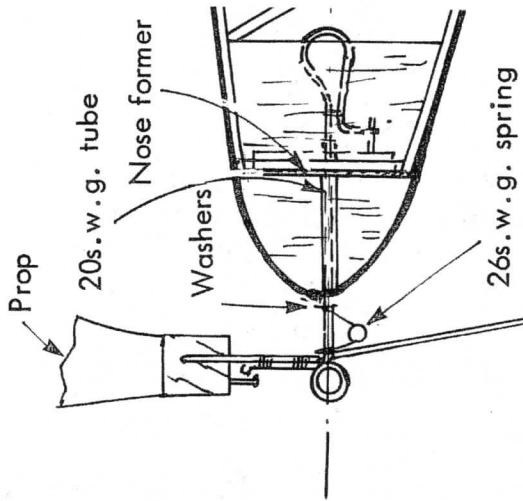
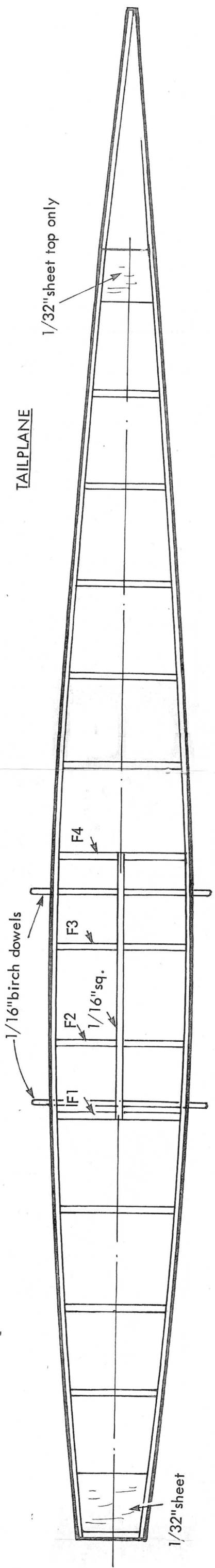
Spikes removed and mounting tabs sanded smooth. Holes drilled for #0 screw. BSD Miccro prop saver screwed on shaft in lieu of PKZ prop. GWS 5030 held to prop saver with 1/4" dental band.



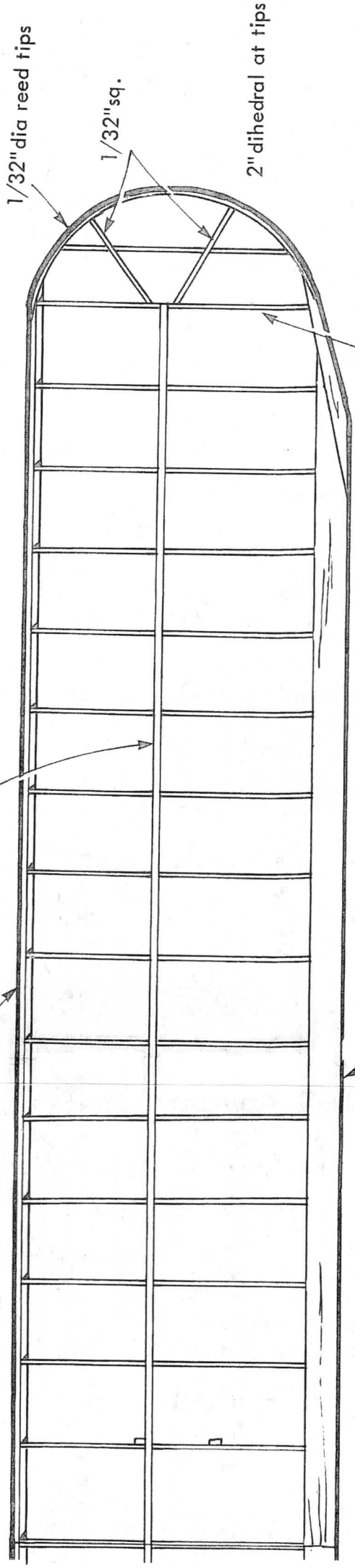




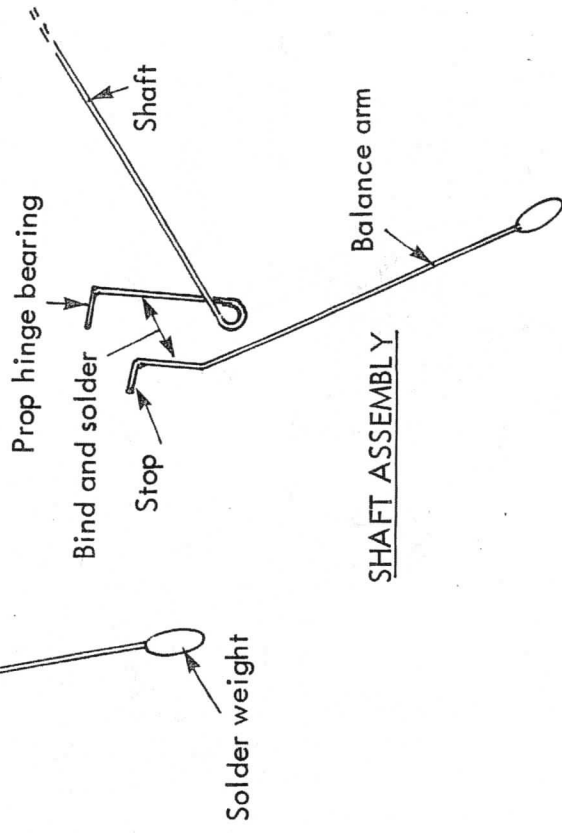
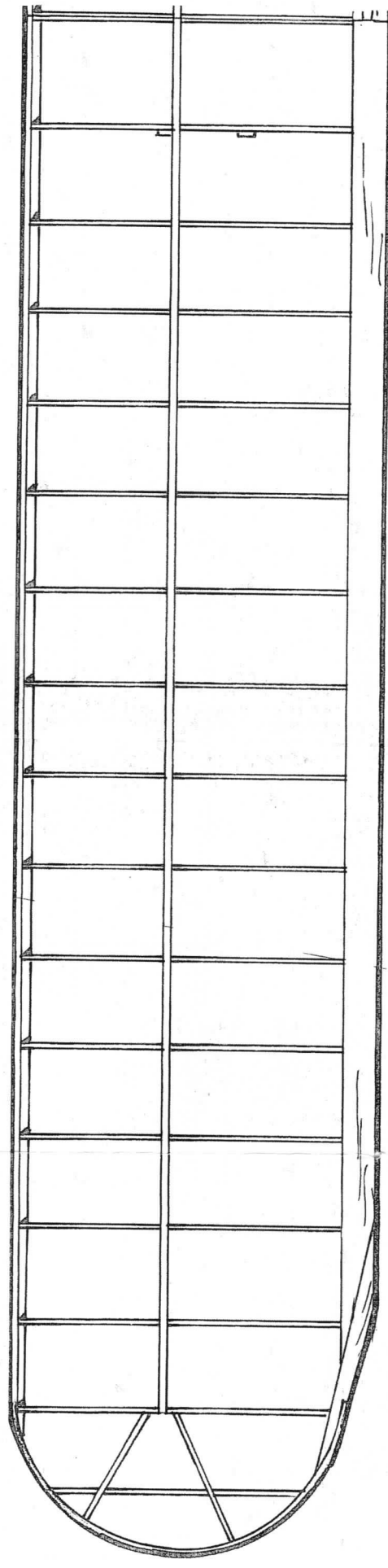
TAILPLANE



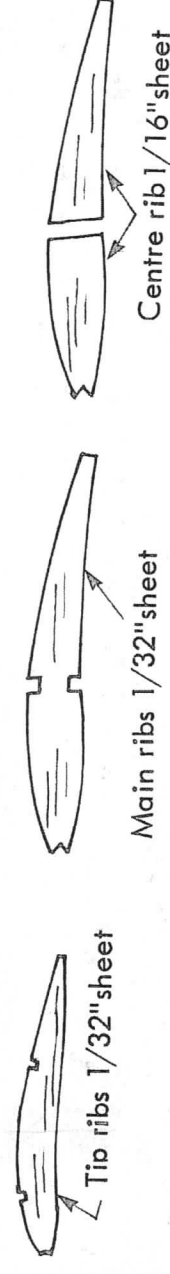
1/16"sq. L.E. 1/16"sq. spars top and bottom



1/4" x 1/16"



SHAFT ASSEMBLY

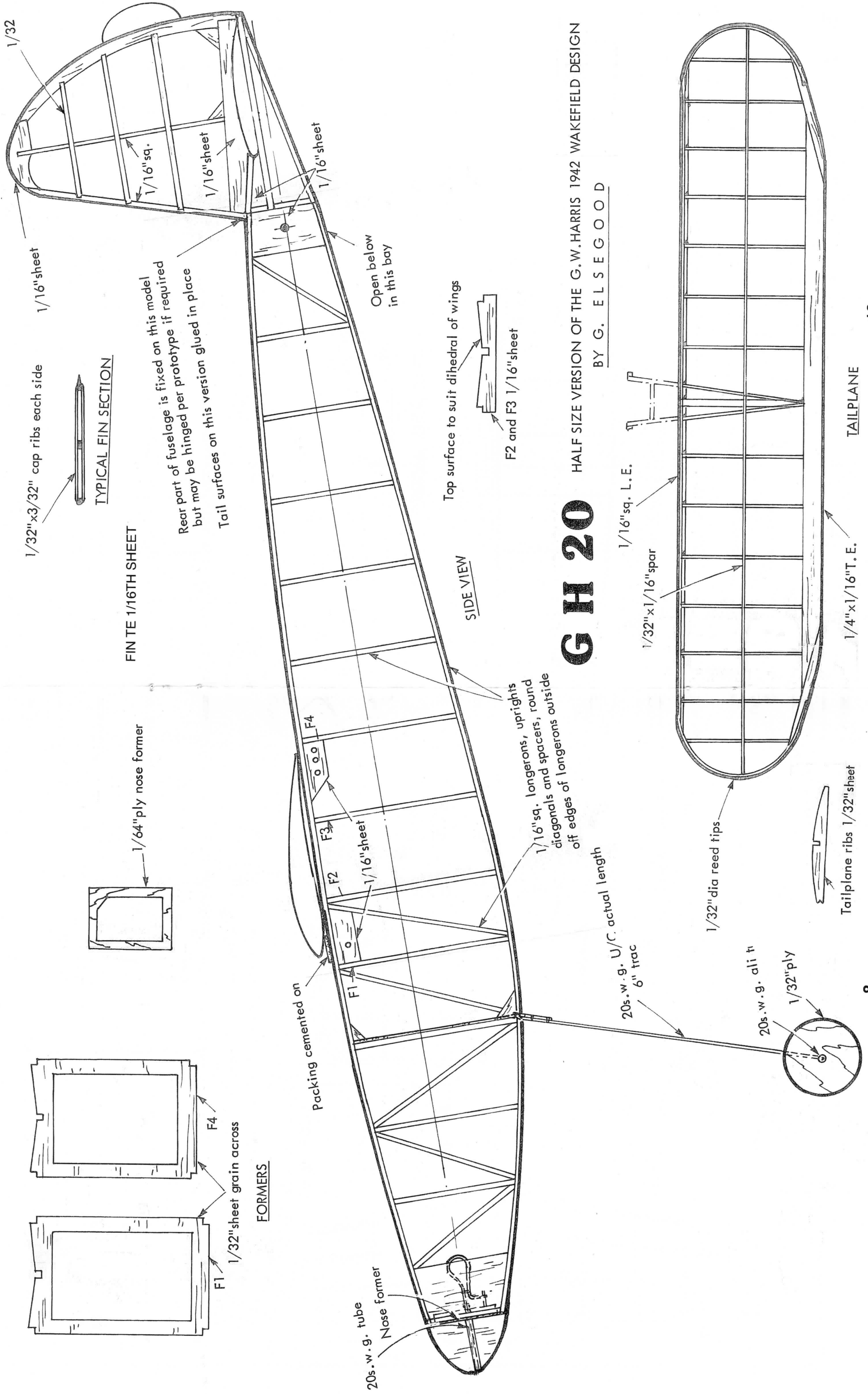


PLAN PRESENTED WITH OCTOBER 1986 AEROMODELLER

# GH 20

HALF SIZE VERSION OF THE G.W.HARRIS 1942 WAKEFIELD DESIGN  
BY G. ELSEGOOD





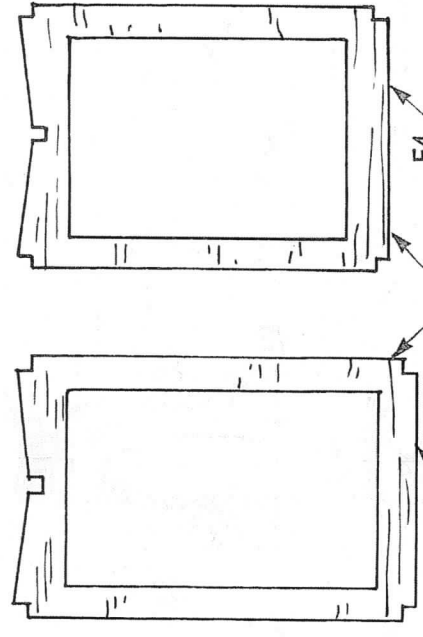
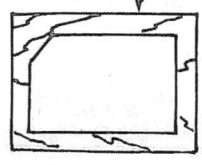
1/32" x 3/32" cap ribs each side

TYPICAL FIN SECTION

Rear part of fuselage is fixed on this model but may be hinged per prototype if required  
Tail surfaces on this version glued in place

FIN TE 1/16TH SHEET

1/64" ply nose former



FORMERS

1/32" sheet grain across

Packing cemented on

20s.w.g. tube  
Nose former

F4

F3

F2

F1

1/16" sheet

Top surface to suit dihedral of wings



F2 and F3 1/16" sheet

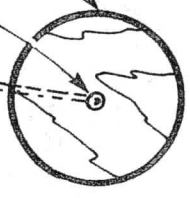
SIDE VIEW

1/16" sq. longerons, uprights diagonals and spacers, round off edges of longerons outside

20s.w.g. U/C actual length  
6" trac

20s.w.g. ali t  
1/32" ply

1/32" dia reed tips



Tailplane ribs 1/32" sheet

# GH 20

HALF SIZE VERSION OF THE G.W.HARRIS 1942 WAKEFIELD DESIGN

BY G. ELSEGOOD

1/16" sq. L.E.

1/32" x 1/16" spar

1/4" x 1/16" T.E.

TAILPLANE



