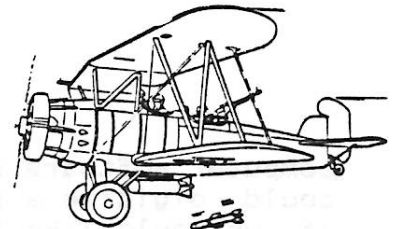


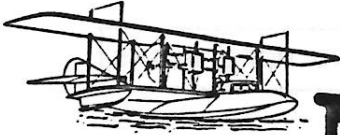
XT5M-1—First 1000 Pound Bomb



MAXECUTERS



F8C-4 Dive-Bomber—1930



Transatlantic Design - 1913



"Sociable-Seater" Trainer - 1910

# MAX - FAX

THE NEWSLETTER OF THE D. C. MAXECUTERS  
SEPTEMBER/OCTOBER 1989

<p style="text-align: center;"><b>MEMBERSHIP</b></p> <p>Dues for membership in the D.C. MAXECUTERS is \$10 per year for residents of the USA, Canada, &amp; Mexico, and \$11 for all other countries. Your mailing label indicates the last year and month for your current membership. A red X next to the label is a reminder that your current membership has ended. Send a check, payable to the D.C. MAXECUTERS, to the Treasurer.</p>	<p style="text-align: center;"><b>PRESIDENT</b></p> <p style="text-align: center;">Bert Phillips 1709 Crofton Parkway Crofton MD 21114</p> <p style="text-align: center;"><b>SECRETARY</b></p> <p style="text-align: center;">Ernie Greene 8103 Falstaff Rd. McLean Va 22102</p> <p style="text-align: center;"><b>TREASURER</b></p> <p style="text-align: center;">Allan Schanzle 20008 Spur Hill Dr. Gaithersburg MD 20879</p>
<p style="text-align: center;"><b>MEETINGS</b></p> <p>The D.C. MAXECUTERS hold meetings on the first Wednesday of every month at the College Park Airport.</p>	

## UPCOMING EVENTS

- Sept 9 1989: MAXECUTER'S SUMMER FUN FLY.
- Sept 10 1989: Region 11 Collecto, Falls Church, Va, Contact Marty Schindler for details. (703) 938-2975.
- Sept 16/17'89: CAAMA SAM 10 Fun Fly at Culpepper, Va. Contact Jack Bolton for details. (703) 620-1138.
- Sept 30 1989: FAC Contest at Fayetteville, NC. Contact Dave Rees for details. (919) 778-6653.
- Oct 8 1989: COMSAT, Earl Stahl Model Contest at Comsat.
- Nov 4 1989: PAX River Indoor Contest. See notice in this issue.
- March 10 1990: PAX River Indoor Contest.

## CLUB NEWS

ALLAN SCHANZLE

MAX-FAX GOES HI-TECH ON  
THE COVER DRAWING

How about that super "drawing"

on the cover of this issue? We have Bob Wetherell and Tom Schmitt to thank for this well done piece of artwork. During Bob's recent visit to the Washington area, he mentioned that he had access to

computer software and hardware that could digitize a photo, and asked if we would like to give it a try for the cover of MAX-FAX. Naturally we accepted his offer, so Tom sent several photos of our feature model for this issue. Bob made reproductions of all the pictures, and returned them for us to select one for the cover. What you see is the end product, and a nice new feature for MAX-FAX. Thanks, lads.

EDITORS ARE A PESKY LOT,  
EH WOT ?

If the truth be known, it was an accident, really. For those of you who have been following the Editor vs. Vance Gilbert postal wars, we have the final battle, leading to the ultimate truce. I received the following note from Vance.

"Man, you're something else! Just as all our ribbing seemed to have come to a momentary close with the somewhat reserved 'THREE CHEERS AND A HEARTY THANKS' etc. (see the last issue of MAX FAX, Ed.) and the magnificent printing of my plan, you still deal the final blow. It was just so funny to me to finally have a plan published - distributed amongst the masses (you should have seen my face at the P.O. that afternoon and have MY copy - that nearly frameable piece of personal modeling memorabilia - be adorned with that dreaded Red X! Ha, Ha, Ha!!!!!! Here's your bucks, champ."

Vance, me lad, thanks for your contributions to modeling. Your wit, personality, and just general all-around "nice guy" attitude is unexcelled. Don't ever forget that sense of personal pride you felt

when you saw YOUR published plan. After all, I may come asking for another one some time in the near future!!!!!!

#### PLANS, PLANS, AND MORE PLANS

I received a letter in the mail with the following announcement.

"John C. Fredriksen, vexed by his inability to find the model plans he wants, is compiling FLYING MODEL WARPLANES: AN INTERNATIONAL GUIDE TO PLANS AND KITS. To insure comprehensiveness, the author solicits information regarding the addresses of little-known companies and plans distributors from fellow modelers. Information on Japanese, Italian, and German firms is especially sought. Contact John C. Fredriksen, 69 Flamingo Dr., Warwick RI 02886. (401) 737-7983."

#### THIS ISSUE

The feature plan for this issue is a Klemm KL 31, designed by the editor. Like so many of the Golden Age aircraft, this little hummer is another great flier. We have also included a collection of plans, notes, and data on rubber speed models from the good 'ole days, compliments of John Walker. Photos from Tom Schmitt again adorn our pages as well as another Embryo plan from Dick Howard. Add to this a re-run of a torque release mechanism we presented several years ago and a slight modification used by Don Srull, another Embryo plan by Dich Howard, and you have our current issue.

# D.C. MAXECUTER'S '89 SUMMER

AMA SANCTION 90906

## FUN FLY

Sept 9

CONTEST DIRECTOR  
ALLAN SCHANZLE  
2008 SPUR HILL DR.  
GAITHERSBURG MD. 20879  
(301) 840-5884



9<sup>00</sup>  
to  
5<sup>00</sup>

### EVENTS

FAC SCALE: Judging starts at 11:30 AM. Qualifying flight must be made by this time.

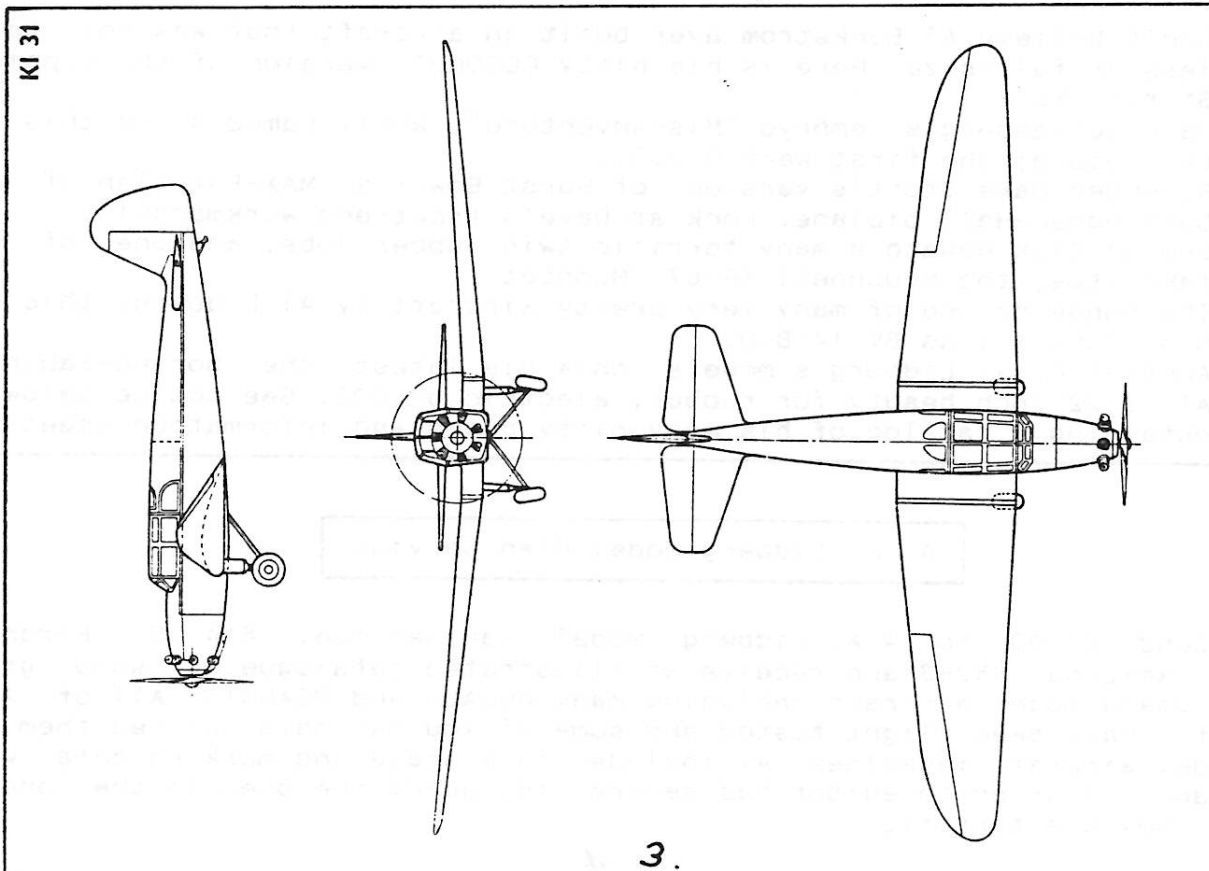
FAC POWER SCALE: Qualifying flight by 11:30 AM.

EARL STAHL COMMEMORATIVE: Highest ranking Earl Stahl model in FAC SCALE. Qualifying flight by 11:30 AM.

#### MASS LAUNCH:

The Races 1:00 PM. A single launch for all racers.  
WW I 2:00 PM. Multi-wings only.  
WW II 3:00 PM.  
Golden Age 4:00 PM.

EMBRYO: FAC rules.  
H.L. Glider: AMA rules.



KI 31

HANNS KLEMM FLUGZEUGBAU  
Leichtflugzeugbau KLEMM G.m.b.H.

PHOTO PAGES

Tom Schmitt

1. This issue's featured plan, our editor's high flying Klemm in ????????? registration markings, another golden age winner.
2. Jerry Paisley with his F4B-4, a very realistic flyer from the Golden Age kit.
3. Paul Gaertner surprised us with a visit to Shangrila this spring and even brought along an aircraft to fly.
4. Mr. "Reliable", Doug Buchanan, with his version of "Old Reliable" a Flying Aces plan by Malcolm Abzug, a pretty aircraft and great flyer!
5. Bill Bell puts some muscle into launching his Trenton Terror at the CAAMA SAM 10 spring fun fly at Culpepper, Virginia. Come on out on September 16, 17 and join the fun. Contact Jack Bolton for more details at (703) 620-1138.
6. Rolfe Gregory with his high flying DH-6. Ask Rolfe about proper stooage procedures next time you see him, but don't forget to duck!
7. One of our newer members and active sport flyer Bob McLinden.
8. Claude Powell, our Pax River benefactor, visited Comsat one Sunday and brought along this nifty Kinner.
9. Another new member Frank Rowsome winds his Flying Aces Moth, which is a terrific flyer like all the Moths. Get a Peck kit and join the fun.
10. A sport electric flyer, the "MINI E" by your photo editor. Plans available from Hi Line Ltd, P.O. Box 1283, Bethesda, Maryland 20817.
11. Remember this beautiful racer, the Marcoux Bromberg by Fred Ewing? If memory serves this was the 3rd FAC NATS at NADC.

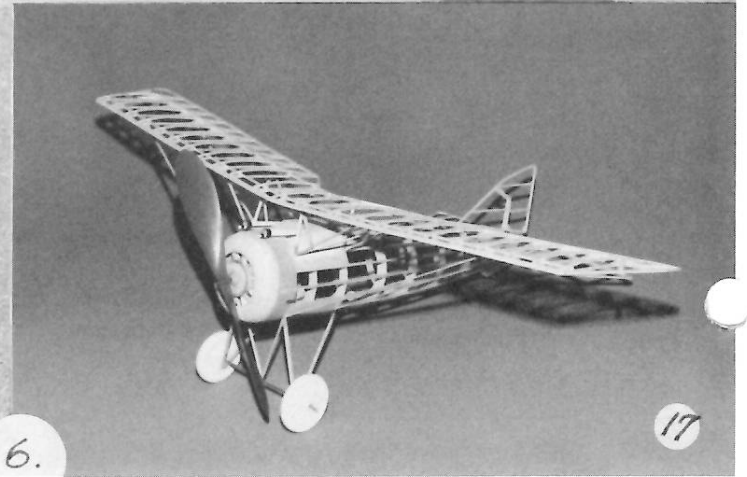
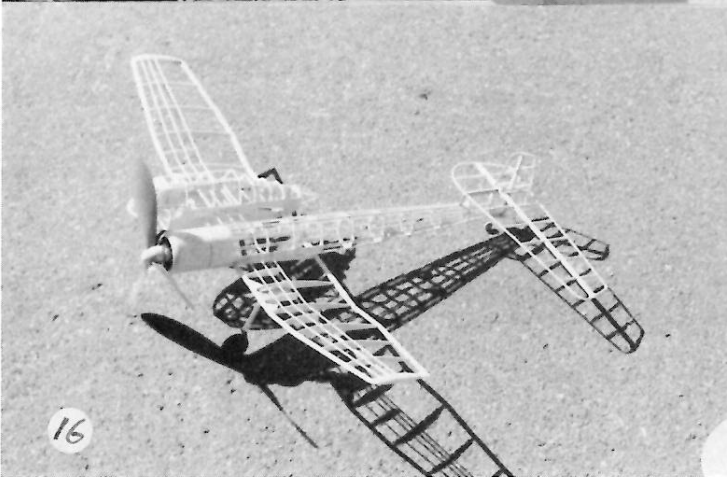
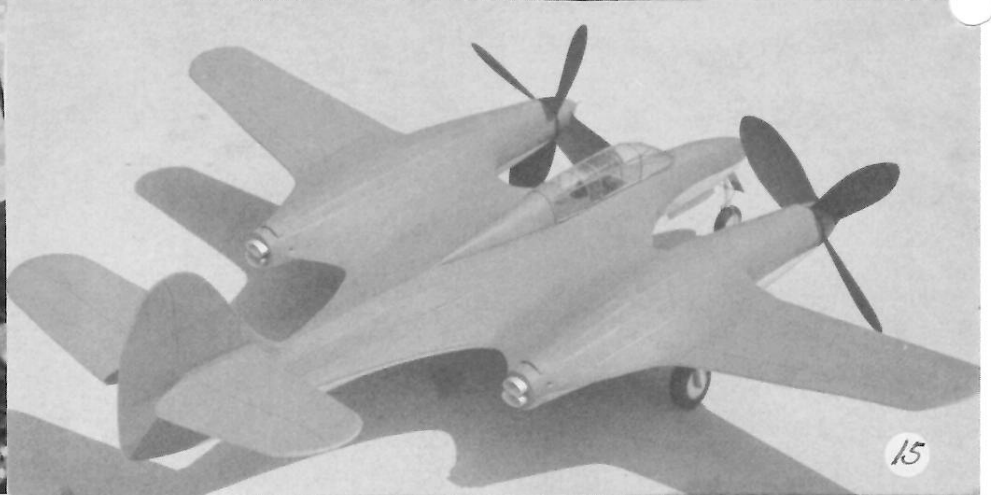
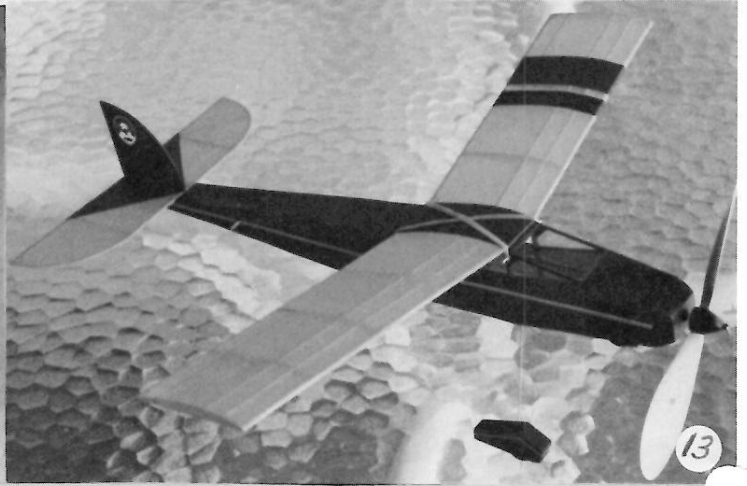
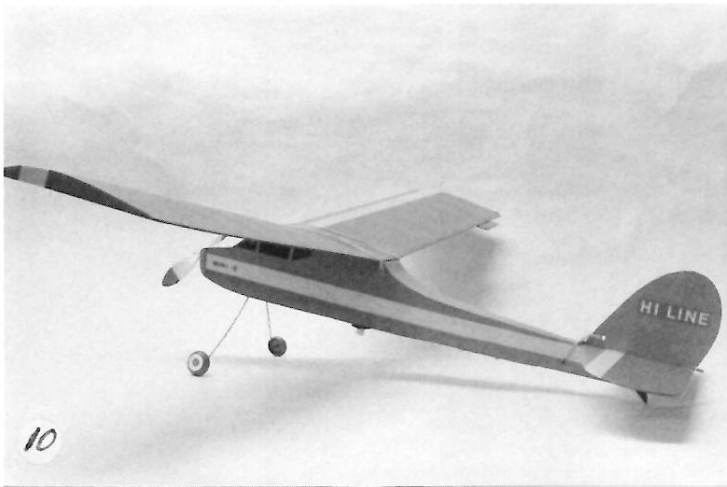
Our Reader's Photos

12. Don't believe Al Backstrom ever built an aircraft that was not tail-less or full-size. Here is his nifty COCONUT version of the Lippisch Storch IXb.
13. Jane Schlosberg's embryo "Mis-Adventure", aptly named since this is her second; the first went O.O.S.!
14. Remember Dave Stott's version of Hurst Bower's MAX-FAX plan of the Cunningham-Hall biplane. Look at Dave's front-end workmanship.
15. One of Dick Howard's many terrific twin rubber jobs, and one of our favorites, the McDonnell XP-67 "Moonbat".
16. The bones of one of many very pretty aircraft by Al Lidberg, this one his Blohm & Voss BV 141B-0.
17. Another of Al Lidberg's models, this his latest, the Morane-Saulnier A1, a 22 inch beauty for rubber, electric or CO2. See notice below on obtaining a catalog of his many nifty plans and information sheets.

A. A. Lidberg Model Plan Service

Send \$1.00 to A.A. Lidberg, Model Plan Service, 614 E. Fordham, Tempe, Arizona 85283 and receive an illustrated catalogue of some great flying scale model aircraft including many NOCALs and PEANUTS. All of Al's aircraft have been flight tested and some of you may have noticed them in the model aircraft magazines. Al includes full scale and marking data with his plans. Your photo editor has several including the ones in the photos above. They are terrific!





## THE KLEMM KL 31

Allan Schanzle

Here's another of those obscure German aircraft that I found in the books I purchased in Der Vaterland some years ago. As usual, there isn't much information available, but the books noted on the plan each give a photo and one of them the 3-view presented on another page.

Let's start with a quiz. Who knows the country whose national civil aviation registration letters are PP? Walt Mooney knows, because he has designed at least one Peanut model with that identification. Come on, lads, someone must know. Nope, sorry, folks, it's not Panama, Paraguay, Peru, not even Poland. How 'bout Portugal? Sorry, wrong again. Well dadgummit, if it's a Klemm, it was at least designed in Germany, but their letter is "D". I'll leave it to youse clowns to figure out. Let's move on to the little information I have about this dude.

From the first reference noted on the plan, I have translated from the German text to give the following description.

"Up until 1930, Klemm had built only with wood, but this was the first 4-seater in the Klemm type series which used steel tubing. The KL 31 was the first German 4-seater with an enclosed cabin. The initial engine was the 120 HP Argus 8 A-3, but later on, versions used the 160 HP Siemens Sh 14a. In spite of the relatively small motor performance for a 4-seater, the KL 31 obtained with the Siemens motor a remarkable top speed of 185 km per hour, and a cruising speed of 165 km per hour.

Up to 1935, about 30 aircraft were built of this type, and it was very worthy of being considered a leading design for additional development of 4-seaters."

The model is certainly straight forward in design, and the only thing that gave me heartburn was the canopy (OK, Paul Gaertner, this time I spelled it correctly, so no more lewd cartoons on the subject). Try this procedure. First, glue the laminated former "4" into position. Then cut, crack, and glue the 3 pieces of 3/32 square that connect formers 4 and 5 at the top. You might want to use 1/8 square to give a little more room for the outside curvature. Next, cut two sets of upright and top braces for the cabin structure between formers 4 and 5. Finally, you can fiddle around like I did to get the front windshield structure from 1/16 x 1/32 balsa. Cut a piece of cellophane to fit one side of the cabin from former 4 to 5, and another to fit the corresponding top portion, but just the right or left side. The top is done in two pieces. Next, cut flat pieces for the front windshield.

The only other thing you might like to try is the use of reed for the exhausts. Claude Powell gave me a few samples a year or so ago, and I finally got around to trying them. Man, that stuff is something else. Soak it in hot water for a few minutes, and you can bend it, without cracking, around a 1/16 inch radius curve ... really. That stuff is made of air, literally. I also tried it for outlines of the tail surfaces. Unfortunately, it has practically no bending moment strength, so I had to put in quite a few braces and supports to avoid wrinkles when the tissue was srunk. You should be able to find this stuff at any good craft store.

Now to the flying. First of all, I used my best balsa (4 to 6 pound, throughout) and the model, without rubber, came out at 1.6 ounces. Sure, that's light for a 30 inch span, but it can be done,

and the worst part is that I had to add a small piece of clay to the TAIL!!! Use a Peck 9 1/2 inch prop and two loops of 5/32 FAI rubber, each strand being 36 inches long. "WHAT????", I hear you say. "36 inches long?" Yep, braid the sucker and stuff that mother into that nice wide fuselage. Maximum safe turns is about 2000, and that, along with a little down and right

thrust, will get you 75 to 90 seconds in dead evening air. Trust me on this. You don't believe it? OK, go ask Tom Schmitt, Bill Ceresa, or any of the other local yokels. Ya say you're from California? Check with Bob Wetherell, who saw the model fly on his recent trip to the Washington area. This hummer is a flying fool.

## SPEED MODELS

John Walker

Not so long ago, while going through my valuable "junque," I found the plans for a rubber powered speed model. This was the old fashioned type that used a "ton" of rubber and its speed was measured in mph, not how long it took to fly around balloon pylons. The present day speed (?) races depend more on luck than how fast a model flies.

Speed models were fairly popular in the 1930's. Every once in awhile FLYING ACES, MAN or AIR TRAILS would include plans for one. Some model companies offered kits of them, usually without rubber because it took so much. Speeds of 60-70 mph were touted ..... but I wonder?

So what's the big deal? Anyone can build a model for speed, right? Sure they can, but getting it to fly an arrow straight flight without "cork-screwing" is something else. I remember some of the "gadgets" that were employed to produce straight flight ..... but don't hold me to them because my memory is good, but because it's getting awfully short these days.

1. Making one wing slightly longer. Great for the big burst of power at the start of the race but not so good after it.

2. Spring loaded rudder tied in with the rear motor hook. The rudder gradually returned to neutral as the rubber unwound.

3. Spring loaded aileron(s) as per Alan Booton models of that period. Some ingenious guys even used the same technique to lower flaps at the end of the flight.

4. Contra-rotating props and push-pull power were also tried.

Charles Grant included the plans for a neat looking speed model in his book MODEL AIRPLANE DESIGN. However, one of the best looking models was the Sphinx Moth in the 1/38 issue of FLYING ACES. By the way, all of the speed models had landing gears and either had to ROG or be launched from a table.

Twin-pushers were used by guys who could not have cared less if their model didn't look like a "real" airplane. Some of the twin-pushers really covered ground, but putting a landing gear on them caused problems.

Who is going to be the first to build a speedster to break the "sonic barrier" of 60 mph with a rubber powered model ..... no slingshots, please.



C. A. V. U.  
(Ceiling and Visibility Unlimited)

by  
Rolfe Gregory

Instead of a yarn this time, I thought I would give you something a bit more constructive.

When trying to trim out a free flight scale model, we usually must resort to changing the thrust line. Generally, we need some downthrust, sometimes some left or right, and occasionally some up thrust. I find the use of scraps of balsa, paper matches or match covers, chunks of modeling clay and the like, to be objectionable and frustrating. Just when you get the model trimmed about right, you retrieve it and find the exact piece of clay, or whatever, has been lost in the grass and you have to guess again as to the size to use under the nose plug.

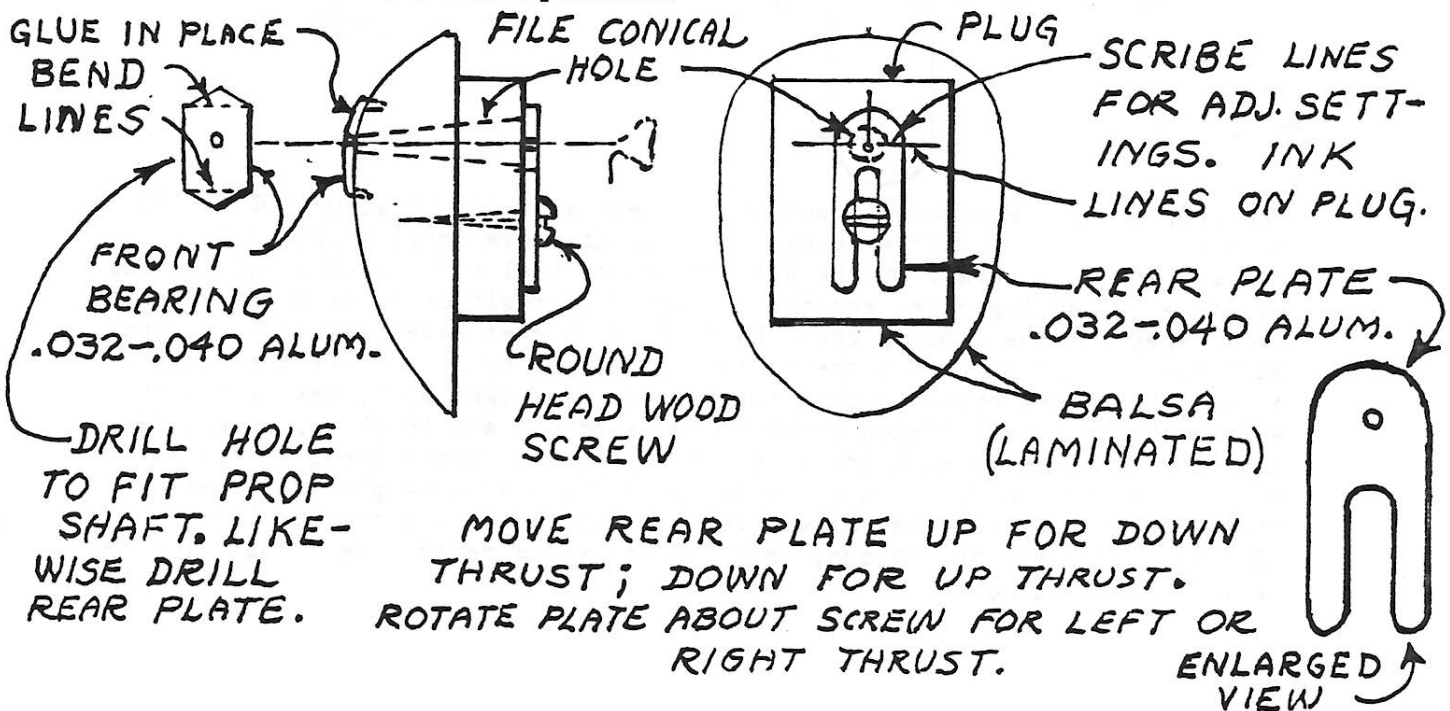
The following drawings show a device I have been using with some success for curing the trouble. Several of our members saw it and suggested I draw it up for the newsletter, so here goes.

I don't think the idea is new with me. I have a vague notion I saw it or something similar years ago. Anyone can have the credit who wants it. One word of caution. Don't try to use it on a tiny nose plug. Be sure it is large enough to work with.

I suggest the plug be at least 5/8" square. Anything smaller becomes difficult.

If you don't have a small rat tail file for enlarging the prop shaft hole into a conical hole, it will work just as well to drill an oversize hole, say 1/4", all the way through. After the small pilot hole for the screw is drilled, run the wood screw all the way in to cut threads into the wood. Remove the screw and put some Hot Stuff into the hole to harden the threads in the wood. Be SURE the Hot Stuff is dry before running the screw into the hole again!

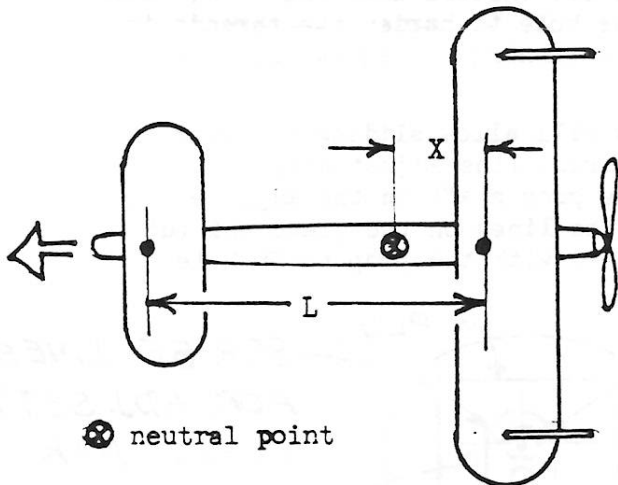
As you can see, loosening the screw will allow sliding the rear plate around to give a fairly good range of thrust line adjustment. After adjusting, tighten the screw to hold the prop shaft in the adjusted position. To help in making adjustments, scribe lines on the plate and put matching lines on the plug with ink, all aligned with the prop shaft hole when in the centered, neutral position.



Canards In General

The little Bleriot 25 canard rubber model was inspired by Bill Hannan's wonderful two part article "CANARDS, THE WRIGHT APPROACH" published in 1979 in (of all places) the R/C Sportsman magazine. Bill's article included a fine three-view which I used as a basis for my model. The model's construction is pretty basic and straightforward. Remember to keep it as light as possible, especially everything aft of the landing gear. The forward fuselage and the canard, on the other hand, should be beefy since this area takes quite a beating in rough landings, and nose ballast probably will be needed anyway. The model flies quite well both in-door and outdoor, although trimming is a little tricky if you use stonger motors or larger props than shown on the drawing. The best flight to date was a thermal assisted 2 minute plus effort. If you can get the Bleriot up high, it glides well. I also built a double-size model (38" span) powered by a VL electric motor, and at 7 ounces it is a realistic and good flier. The lower torque, higher RPM electric motor made it much easier to trim than the rubber powered job.

Here is how I trim a canard model. The process seems to work, even though it may not have a real aerodynamic basis. First thing to do is to determine about where the C.G. should be. We first will find where the "neutral point" is; this is the point of balance if both the wing and the canard surface carried their proportional share of weight, based on their surface area. Draw a line between points that are 1/3 of the way back of the leading edge of the wing and the canard surface. If we know the areas of the wing and canard we can then calculate where the neutral point is on the line; the figure below shows how to do this:



a = canard area

A = wing area

$$\frac{X}{L} = \frac{a}{a + A}$$

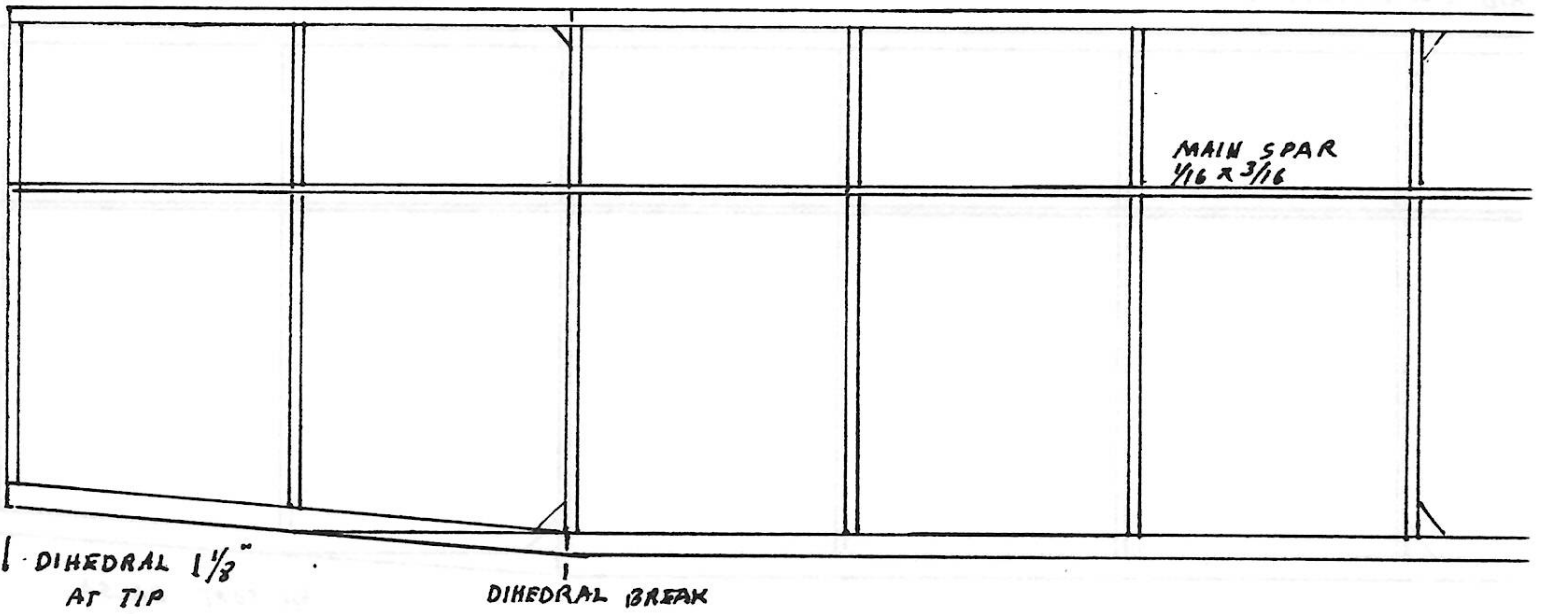
The C.G. should be located ahead of the neutral point by about 10% to 25% of a wing cord. The further ahead the C.G. the more longitudinal stability we have and vice versa. On the Bleriot the neutral point lies about 1/4" ahead of the wing leading edge, and the correct C.G. position is between 1/4" behind to 1/4" ahead of the landing gear. Louis Bleriot must have flown the original with the C.G. at or behind the neutral point. If he got it off the ground, it must have been hairy! With the C.G. in the right spot, test glide and adjust the canard incidence angle to get a smooth stable glide. Straighten any banking tendency with the ailerons. Those tiny tip rudders by the way are very effective for turn adjustments, if used as drag plates rather than conventional rudders. Slowly begin to add winds and try for large climbing turns against torque, using thrust adjustments. Side thrust will be

# EMBRYO "DESERT PEACH"

DICK HOWARD

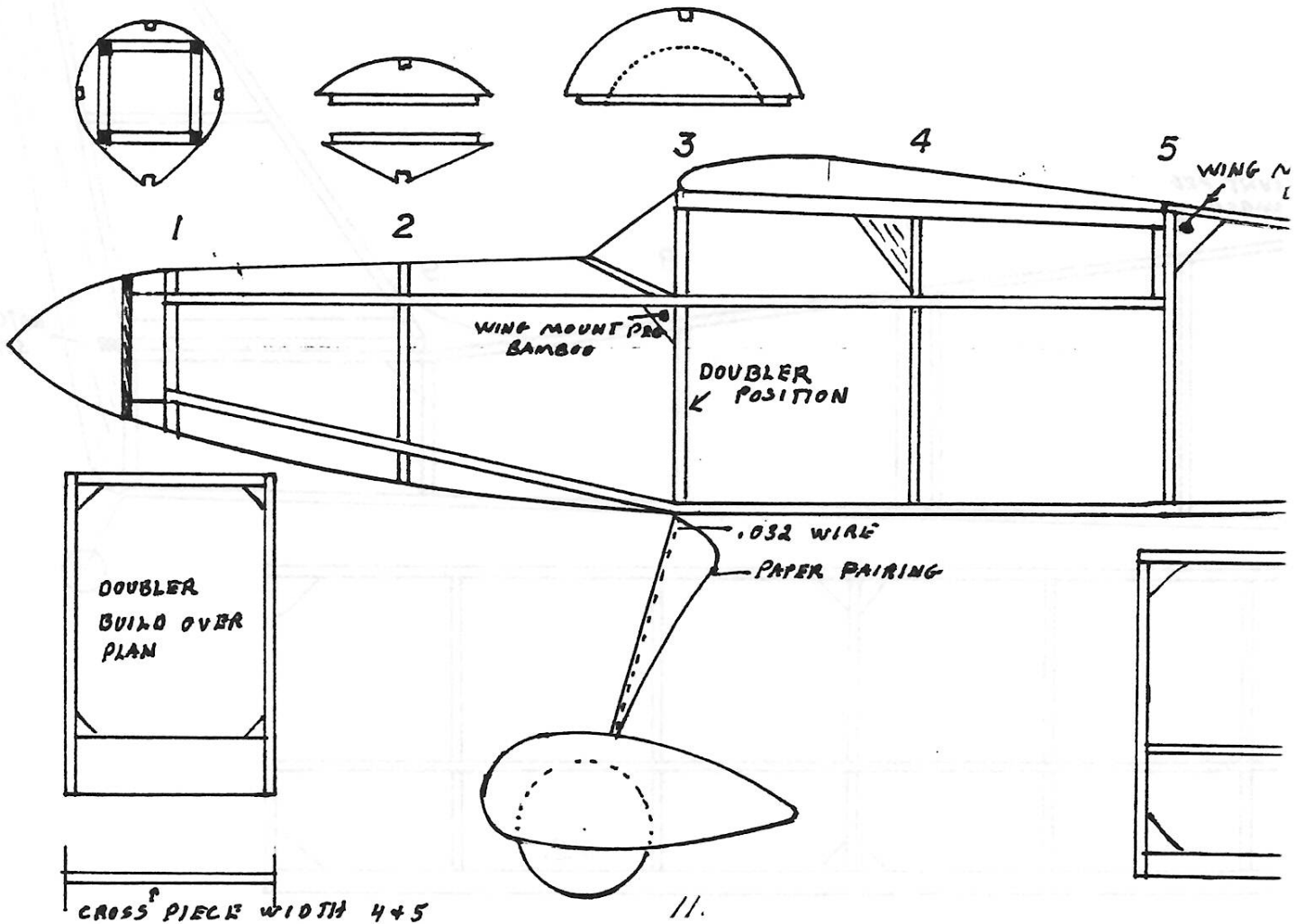
L.E.  $\frac{3}{32} \times \frac{3}{32}$

CRACKED



DIHEDRAL  $1\frac{1}{2}$ "  
AT TIP

DIHEDRAL BREAK



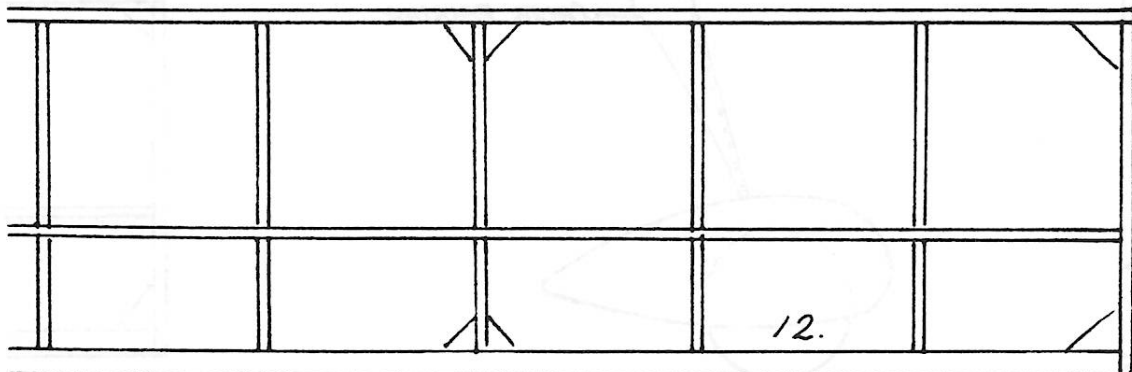
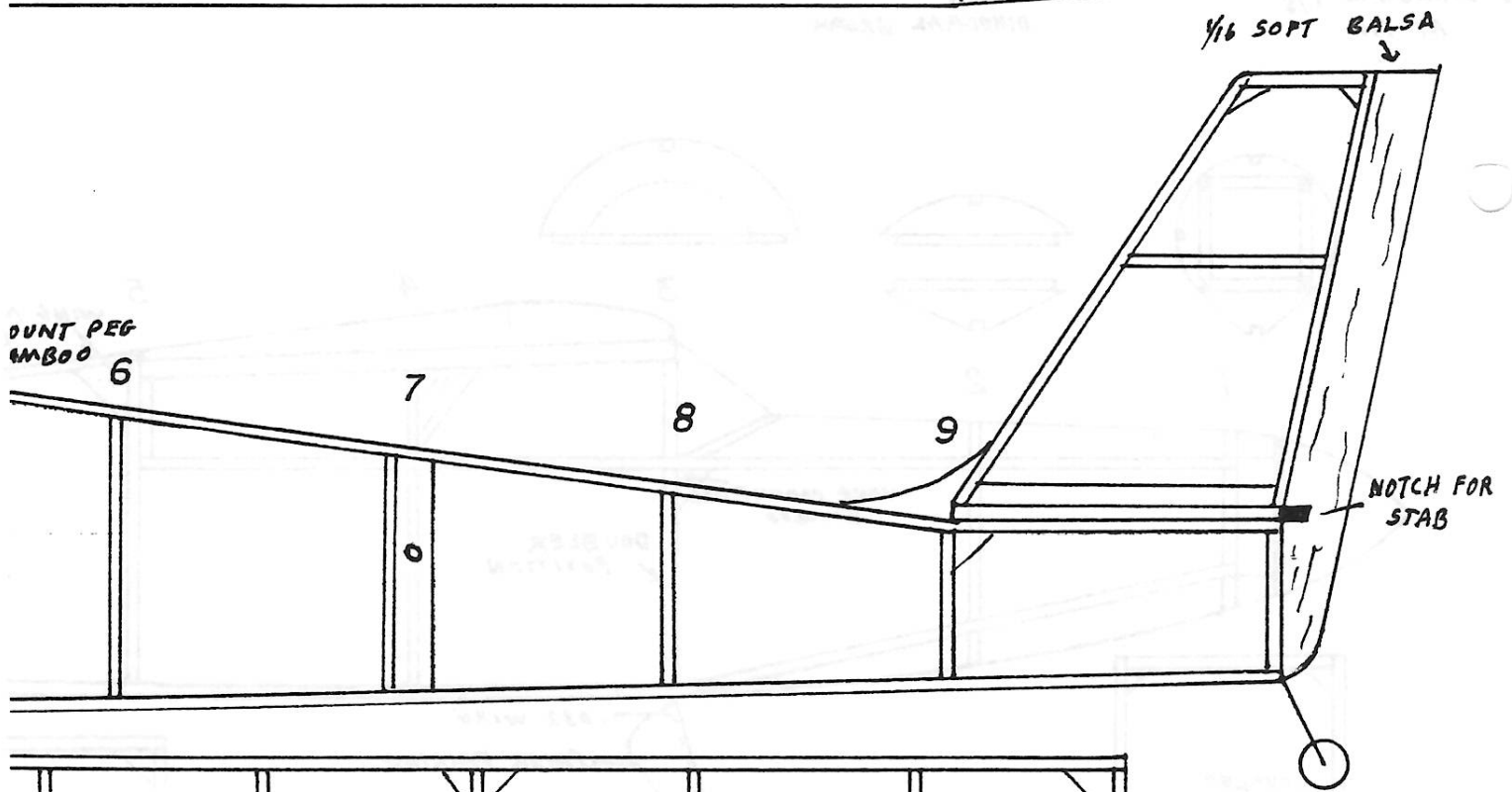
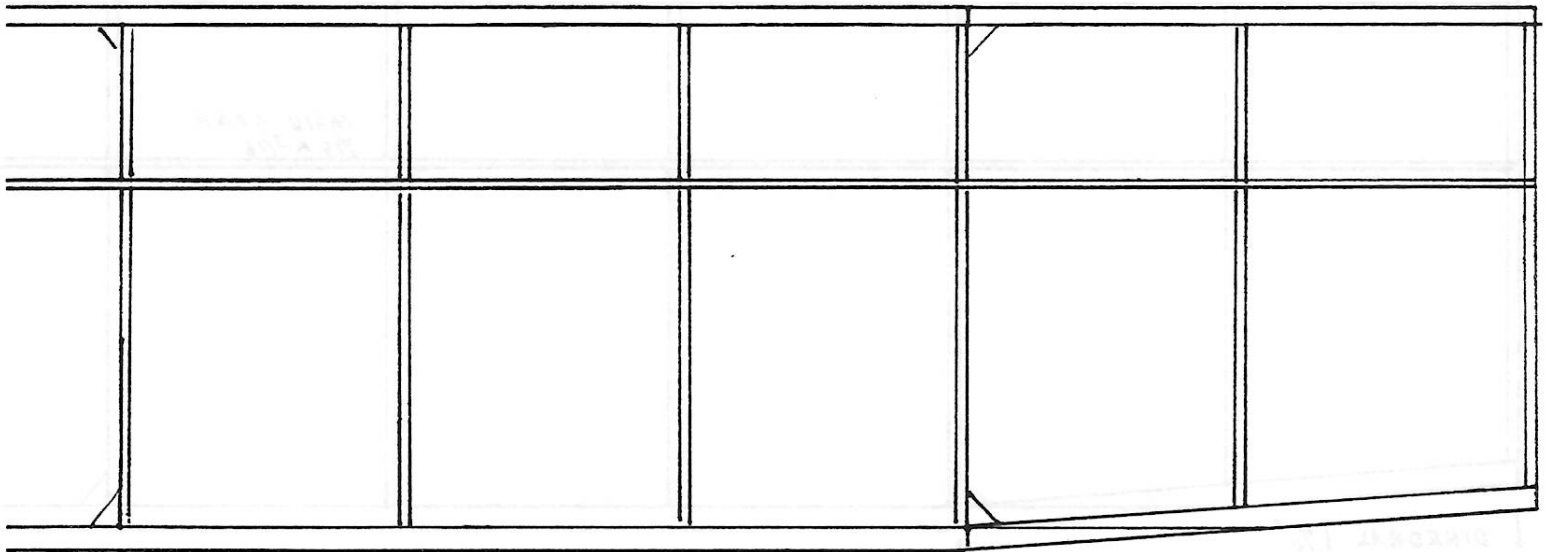
DOUBLER  
BUILD OVER  
PLAN

CROSS PIECE WIDTH 4+5

//.

EMBRYO DESERT BEACH  
SICK HOWARD

RIB CONSTRUCTION



**INDOOR MODEL AIRPLANE CONTEST**

NAS/NATC PATUXENT RIVER - LEXINGTON PARK, MARYLAND  
HANGAR VX-1

NOVEMBER 4, 1989  
9:00 AM - 5:30 PM

**NO ENTRY FEE BUT DONATIONS TO THE NAVY RELIEF SOCIETY ARE WELCOMED**

MAJOR EVENTS (FAC Rules & Trophies awarded)

MASS LAUNCH

- 1- WW-I 12:00 PM
- 2- NAVY SCALE 1:00 PM
- 3- PEANUT SCALE 2:00 PM
- 4- GOLDEN AGE 3:00 PM

OTHER EVENTS

- 5- FAC SCALE
- 6- COCONUT SCALE\*
- 7- BOSTONIAN (14 gm)\*\*
- 8- FAC POWER SCALE\*\*\*

SPECIAL EVENTS ( Prizes awarded )

- 1- Single MASS LAUNCH at 11:00 AM for old time 10 and 25 cent scale models (typically Megow, Comet, Scientific plans/kits); last one down wins.
- 2- NOCAL (7 gram minimum weight)\*\*
- 3- NOVICE PENNYPLANE (AMA Rules)\*\*

\* COCONUT Rules - 1 oz minimum weight w/o motor

Minimum wingspan - monoplanes 36 ins.

- multiwings 30 ins.

Scale Judging - Modified Mooney Rules

\*\* Single best flight time determines winner in these events.

\*\*\* FAC POWER - 4 oz maximum weight for CO2 and MINI ELECTRIC.

**AIRCRAFT FOR SCALE JUDGING MUST BE TURNED IN BY 11:00 AM  
NO QUALIFYING FLIGHT IS REQUIRED**

**ALL FLIGHT TIMES MUST BE SUBMITTED BY 4:30 PM DEADLINE  
AWARDS: 5:10 - 5:30**

LOCAL RULE: ONLY ONE MASS LAUNCH EVENT PER AIRCRAFT

INFORMATION: COORDINATORS: CLAUDE POWELL 1 (301) 872-4105  
TOM SCHMITT 1 (301) 530-0327  
CONTEST DIR: ALLAN SCHANZLE 1 (301) 840-5884

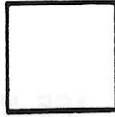
**IMPORTANT NOTICES:**

**FOOD AND BEVERAGES WILL BE AVAILBLE IN THE HANGAR AT NOMINAL PRICES  
PLEASE SUPPORT THIS EFFORT BY THE LOCAL FOLKS**

**ALSO PLEASE NOTE THERE WILL BE NO TABLES OR CHAIRS AVAILABLE IN THE  
HANGAR SO BE SURE TO BRING YOUR OWN.**

SPONSORED BY: NAVAL AIR STATION/NAVAL AIR TEST CENTER,  
PATUXENT RIVER, MARYAND AND ST. MARY'S  
COUNTY RECREATION AND PARKS.

DUES DUE

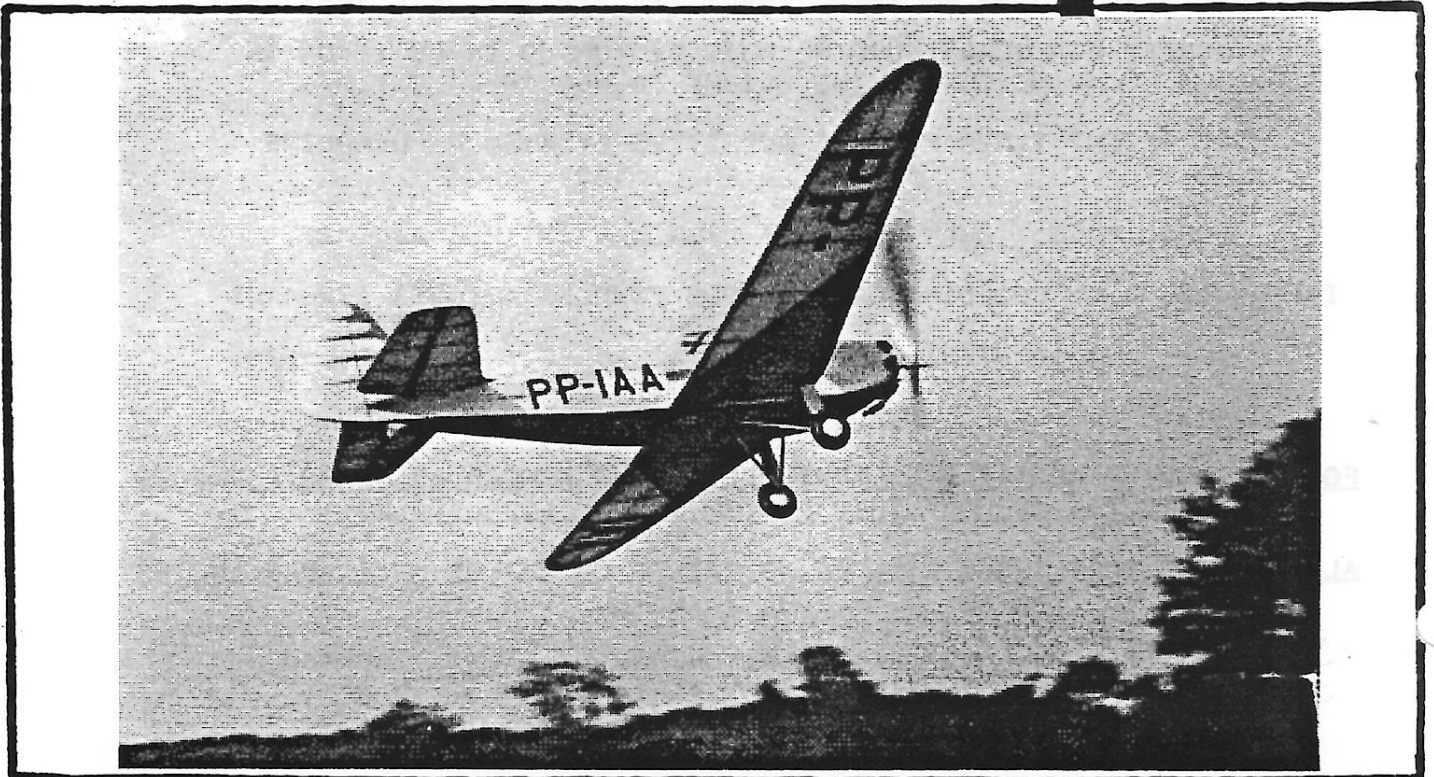


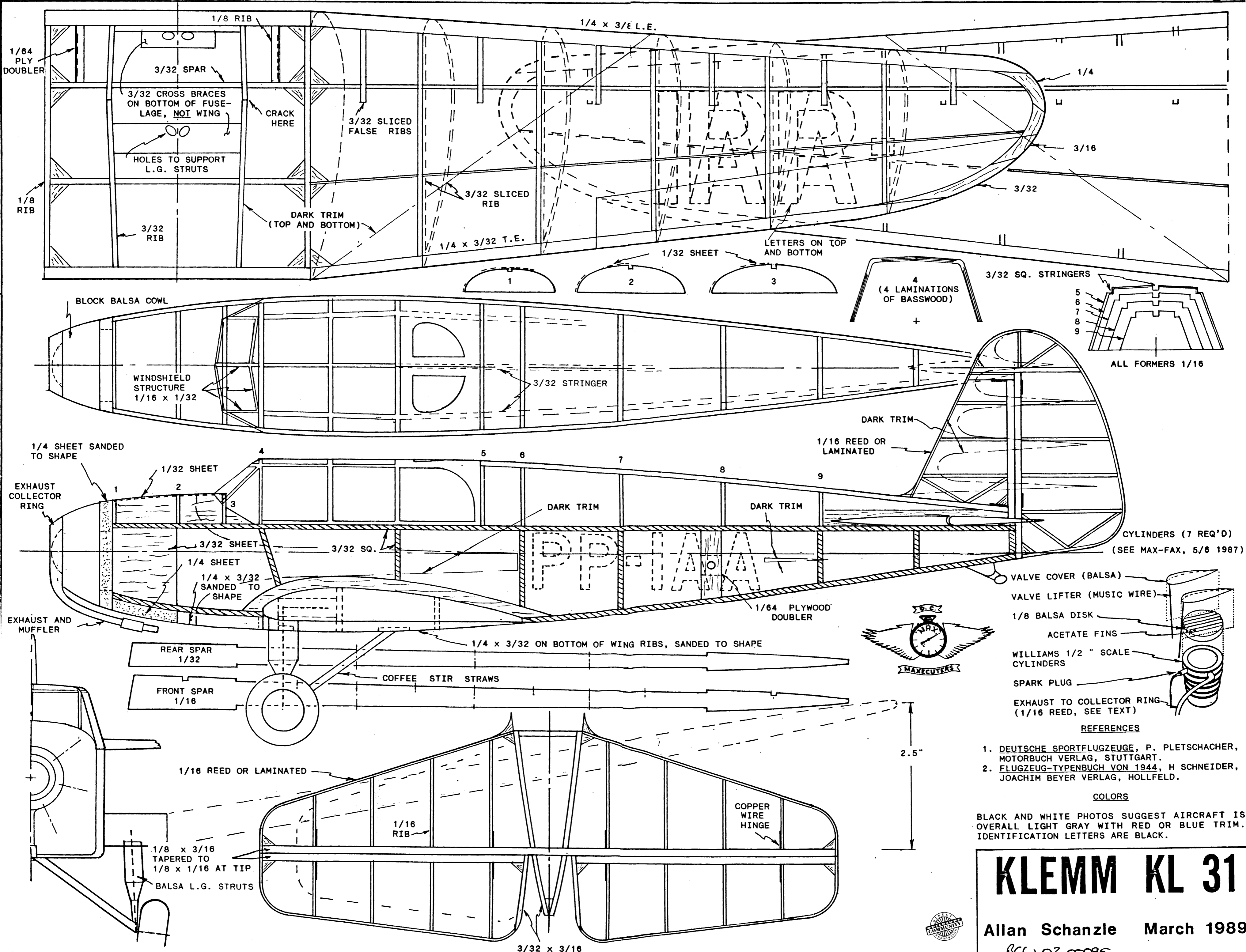
FIRST CLASS

2008 Spuz Hill Dr.  
Gathersburg MD 20879

SEPT '89  
OCT

max-fax





- VALVE COVER (Balsa)  
 VALVE LIFTER (MUSIC WIRE)  
 1/8 Balsa DISK  
 ACETATE FINS  
 WILLIAMS 1/2" SCALE CYLINDERS  
 SPARK PLUG  
 EXHAUST TO COLLECTOR RING (1/16 REED, SEE TEXT)

- REFERENCES
1. DEUTSCHE SPORTFLUGZEUGE, P. PLETSCHACHER, MOTORBUCH VERLAG, STUTTGART.
  2. FLUGZEUG-TYPENBUCH VON 1944, H SCHNEIDER, JOACHIM BEYER VERLAG, HOLLFELD.

COLORS

BLACK AND WHITE PHOTOS SUGGEST AIRCRAFT IS OVERALL LIGHT GRAY WITH RED OR BLUE TRIM. IDENTIFICATION LETTERS ARE BLACK.

# KLEMM KL 31

Allan Schanzle March 1989



BCW 02 00095