THE HANGAR PILOT

ONE AND ONLY!

THE MIAMI INDOOR AIRCRAFT MODEL ASSN.

MIAMI

ISSUE 16
FEB. 82

CLUB 986

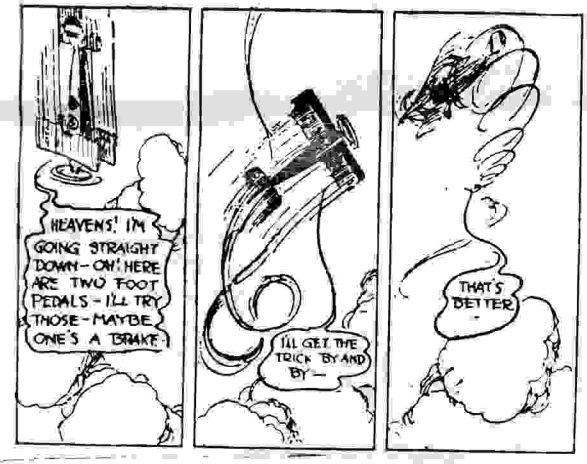
NEXT MEET FEB 14 ♡ DAY!

OLD COMIC STRIPS:

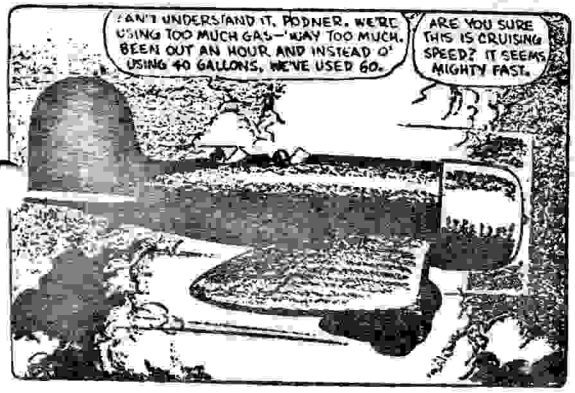


"Tailspin Tommy" flies a Ryan M2A. © 1930 King Features Syndicate, Inc.

"Connie" learns to fly, by Frank Godwin. © 1930 by Public Ledger.



"Wash Tubbs" and Captain Easy in a Lockheed Sirius by Roy Crane. © 1931 NEA Service Inc.



INDOOR WEEK ISSUE
JUNE 12-19
1982

THE HANGAR PILOT



Is published 8 (or 9) times a season by Miami Indoor Aircraft Model Association (MIAMA) AMA Club 986, the only active all-indoor club publication in the AMA. For $5.00 a year you will receive all 8 editions, and an additional $5.00 makes you a member of MIAMA (Indoor isn't for everyone!) Send contributions, letters, plans, 3-views, articles, gripes, and MONEY to:
MIAMA Dr. John Martin 3327 Darwin St. Miami, Fla. 33133

Pres./Editor: Dr. John Martin Jr.
Secy./Illustrator-Reporter: Dave Linstrum
Peanuteer: Carl Hedley
Overseas Correspondant: Butch Hadland UK
Technical Articles: Bill Hiscock
Scale Judge: Dan Kilgore
Awards and Archives: Terry Rimert
Retrieval: Jim Stewart, DON BAL
Youth Activities:
Mike Arak, and Ernie Clark

MEET 4 OPA-LOCKA JAN 10 1982

Is it possible that we are half way through this season??

The trend to flying many models in Peanut continues. 9 contestants flew 17 planes. Another trend..back to super light weight long flyers. Disdaining the loss of static points, both Everson and Wells are producing less than three gram Peanuts. They are realistic, but devoid of detail and they fly, fly, fly. Millard Wells Beardmore Wee Bee (with the Martin "extensor" landing gear) SET A NEW FLORIDA PEANUT RECORD with a top time of 1:51.7, anda two flight total of 220.4 (wt. 2.5 Gms.)but only got a static score of11.5 for 6th place overall. Millard's Vagabond did 1:08.7 for 10th place(3 Gm.)..this from Ken Taylor plans. His Stinson Voyager ,also at 3 grams, did 1:23. Walt Everson's 3 gram Taylorcraft is capable of flights of over a min. and a half, and gets 15 static points..... A TREND? It is kinda nice to disregard the static points, and just make a time getting FLYER.

It was cold..in the 50's when the meet started but soon warmed up for some good flying. Dick Kelso held the State Peanut Speed Record (At 8.8 seconds) for about a minute until Wells did 8.6 Seconds with his improbable Andreason...a new peanut speed record. How much faster are we gonna go??

Mike Arak gets more for less than anyone. He entered his World P-Nut winning Lacey M-10(That is getting long in the tooth)in 3 events, and was 1st in Scale, 2nd in P-Nut, and 2nd in P-Nut Speed with the same model!!

Next meet bring your Peck ROW(ater) or any other plane on floats and l s fly from LAKE WELLS. We have a nice ROW Lake now for water take-offs, and it is NOT as easy as it sounds....Let's give it a try!!

ARAK IS FIGURING OUT ANNUAL POINTS - SEE NEXT ISSUE.

MEET 4 JAN 10 OPA-LOCKA (2)

PEANUT SCALE EVENT:
1. Mike Arak 6 Pts. (Lacey 34.5) 1 Static, 5 Flight (59.0)(54.0)
2. Carl Hedley 11 Pts (Lacey 29.8) 4 Static, 7 Flight (57.0)(53.0)
3.John Martin 11 Pts (Kalinin 27.3) 6 Stat, 5 Flight (59.0)(54.0)
4.Dave Kiefer 12 Pts (Lacey 29.9) 3 Static, 9 Flight (41.6)(40.2)
X John Martin 13 Pts (14-Bis 32.5) 2 Stat, 11 Flight(34.6)(32.8)
5.Walt Everson 15Pts 9(Bucker 28.7)5 Stat, 10 Flight(31.1)(36.5)
6.Millard Wells 15 Pts(Wee Bee 11.5)14 Stat,1 Flight(1:38.7)(1:51.7) ★
NEW FLORIDA STATE RECORD FOR CAT II PEANUT DURATION ??!!!
X Walt Everson 15 Pts(Taylorcraft 190)11 Stat,4 Flight(1:05)(56.0)
X Millard Wells 16 Pts(Voyager 17.6) 13 Stat, 3 Flight(1:08.7)(57.6)
X " " " 17 Pts(Vagabond 15.0)15 Stat, 2 Flight(1:23)(1:21.5)
X " " " 19 Pts(PAMA 19.0) 11 Static, 8 Flight(54.1)(54.5)
Dick Kelso (Found 24.0) 20 Pts: 7 Static, 13 Flight(26.0)(24.0)
X " " " 21 Pts(St.Louis 22) 9 Looks, 12 Flight (25.0)(26.0)
8.Jim Stewart 23 Pts(Church 23.0) 8 Static,15 Flight (13.5)(20.7)
9.Bill Hiscock 23 Pts(B D-4 23.0) 8 Static,14 Flight (22.8)(26.2)

SCALE: 1.John Martin Alco Sport 79 Stat, 1:07.2 Fly 146.2
2.Mike Arak Lacey 82 Stat 55.5 Fly 137.5
3.Dave Kiefer Lacey 80 Stat 43.0 Fly 123
4.Dick Kelso Airbus 65 Stat 20.5 Fly 85.5

GLIDER:1. Don Bal(55.5)(54.9)
2.Jim Stewart (29.9)(27.9)
JUNIOR: 1.Dave Bal (20.0)(19.8)
2.Steve Bal (9.6)(7.4)

EASY B:1.Jim Stewart 7:24
2.Walt Everson 5:33.6
JUNIORS:1.David Bal 37.4
2.Heather Arak 32.0

PEANUT SPEED:
1.Millard Wells(Andreason) 8.6 Sec.
2.Mike Arak (Lacey) 17.2 Sec
3.Dave Kiefer (BD-4) 16.5 Sec
4.Dick Kelso (Bellanca) 8.8 Sec
5.John Martin (ansaldo) 21.0

OLD TIMER HOG:
1.Mike Arak 3:03.5
2.Ernie Clark 1:19
3.John Martin 52.0
JUNIOR:Heather Arak16.0

BOSTONIAN/MANHAT. 1. Walt Everson 4:05

PENNY PLANE:
1.Mike Arak 7:25.1
2.Walt Everson 6:24.4
3.Carl Hedley 6:14
4.Jim Stewart 5:50
JUNIOR:1.Heather Arak 45.4

MEET 5 - VALENTINE'S DAY FEB 14 9-5
OPA-LOCKA. STAN CHILTON WILL BE THERE
DON'T FORGET FLY-IN - MID SOUTH - FEB 21

PAPER 3 Flying Models

LAST OF THE SERIES

by Michael Hetherington

A scale type flying model of paper construction
THE INTERCEPTOR
Designed for Model Flyer as an introduction to making Paper Flying Models

The Editor thought it would be a good idea to conclude my article on "Paper Flying Models" with a design to encourage readers to try out the constructional methods described. The 'Interceptor' therefore has been specifically designed for this purpose.

As I have already declared my hand with regard to scale models, "what are you doing with a scale type design?" you may well ask. Well, the Interceptor is just about the most simple design you could have for paper construction, it looks quite attractive, but at the same time has a degree of inherent stability, better than most of the true scale subjects one can think of. I had thought of a Hurricane (which would make an admirable model) but it would require more 'advanced' paper building techniques. Hopefully, the 'Interceptor' will lead you on to attempt more ambitious subjects.

The model represents an R.A.F. early monoplane fighter of composite metal/wood construction with part fabric and part metal covering, and as the photographs show, the silver finish and general insignia are typical of the period. The design, however, is a sheep in wolf's clothing. Leave off the gun troughs and radiator, finish the paper in some bright colour scheme, and the 'Interceptor' becomes the 'Sceptre', a good looking racing monoplane. Alternatively, leave all the detail off, lengthen the undercarriage slightly, increase the propeller diameter to 7" and the 'Sceptre' becomes the 'Spectre' a ½rd scale vintage Wakefield duration model. If all this fails to interest you, at least spare an hour one evening to make up a wing out of notepaper, just to see what can be achieved.

CONSTRUCTION

The following notes should be read in conjunction with the preceding articles in Model Flyer.

Adhesives

'Glue' refers to 'Evostick' and 'cement' to 'Balsa Cement'. (CONTACT ADHESIVE) (AMBROID)

Paper

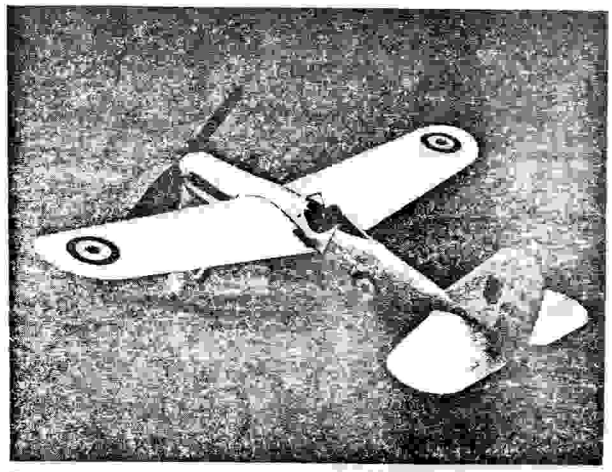
All the paper (except propeller) is Air Mail, as sold by Woolworths in pads of 44 sheets, approx. 10" x 8" at 52p. This corresponds to Grade 3 in my notes, with a weight of 60 grms per sq. metre, .070 mm thick. Construction requires 5 sheets doped and painted as described. My silver finish was obtained using 'T' spray Metallic Laquer in an aerosol. Once the paint is quite dry, store the sheets pressed flat until required.

Balsa

All the balsa used for the basic framework is 1/16" medium to soft, and very little is used.

Panel Drawings

The panels are drawn as viewed from the INSIDE. When tracing onto the finished paper, trace all the detail shown, with the exception of the lines drawn with long dashes. These lines are marked on the OUTSIDE (face) of the panel after it is cut out.



The Interceptor

Making up Panels

Make up panels one at a time as required. Trace as described. Note that the Wing Panel and Fuselage Panels P1, P4 and P11 and spat require the drawing to be turned over, and an opposite hand panel traced as well. Cut out with sharp modelling knife (not scissors) use steel straight edge where possible. Slice through curved glueing edges with series of cuts as shown. Paint lettering, apply transfers and score detail lines on face side. Score and mark ribs, rivets (practice first) etc. on inside face. Fold up glueing edges, and on curved sections hold a small knife blade or spatula on line of fold of each tab, turning over individually so that each slightly overlaps the other at the corner. Fold up fold lines. Formed curved sections on panel with rollers and foam pad.

Wing - Tail - Fin Assembly

Cut mainspar and 3 ribs for each wing, saving the strip around the root rib for panel P3. Work on flat clean surface. Glue mainspar and ribs to wing panel in turn, keeping panel flat. Ease root of panel up to allow sloping underside of spar tip to adhere to, and 'pick up' panel. Apply glue smoothly and smartly along top of spar ribs and glueing edges. Bring over, and smooth down the top half panel working from the L.E. to the T.E. The object is to get the paper in full contact with the basic structure, without buckles and dents. Practice without the glue first as you don't get a second chance! Keep smoothing down gently with finger along the glue edge and tips until glue has 'grabbed'. Complete wing assembly by packing up tips 1" and butt cementing spar stubs together. Reinforce joint on either side with wood cut to full depth of spar to fit between root ribs. When dry, glue down on to Centre Section Panel and bring top of panel over and down to lock whole assembly together. The tailplane and fin follow the same procedure. The tailplane having one spar, one front rib and two short rear sections, while the fin has one spar and one front rib only.

Fuselage

Prepare all formers and two longerons. The longerons should be clearly marked to show former positions. Rub cement around motor peg location to strengthen. The 1/32" tapered notch is most important for the tailplane incidence. Viewed from above finished fuselage tapers to the front and the rear, with the ce between F2 and F5 papallel. Carefully indent longerons where 'starred' to obtain this form. Note one is L.H. and one R.H. Reinforce bend with cement. Keeping all formers square, cement structure together. Various 1/16" sq. and 1/16" x 1/8" members are added as shown to supportt panels at joints. Panels are applied in numbered sequence. Sand slight curves around motor peg location to allow panel to fit snug. Offer up panel P1 to check fit.

The edges should just overlap 1/16" sq. top and bottom. Spread glue evenly over longerons, around motor peg location and on former edges. Correctly locate panel and smooth down with finger, taking care not to twist assembly. Before applying other panel push needle through motor peg hole to pierce panel. With both P1 panels fitted you will begin to feel the rigidity and strength of the fuselage. Fit panel P2, it should overlap P1 by the thickness of the former. Locate centrally and glue down between F2 and F5, wing assembly. Glue F3 on top of wing and cut away 1/16" sq. from cockpit area. Shape strengthening strips around wing cut out on panel P3 to obtain snug fit over wing. Trim around cockpit is cut from glossy magazine. Fit and glue P3. Fit and glue R and L Hand P4. It fits flush to F2 and over F1. Cover exposed F2 with semi-circle of paper. Bend undercarriage from 22G wire and cement firmly to F2. It has a ½" forward rake. Fit triangular gusset to lock U/C in position. Fit P5 and P6. Slice through F7 and panels to fit tailplane. Check for suareness with wing and negative incidence. Glue to top of longeron only. Glue fin in position having formed and trimmed the long tabs below rib. Make up tailskid from 24G wire. Fit headrest F12 and windscreen, which is cut out, 'rivetted', and glued to thin celluloid. F12 and F13 are faced with suitable pattern cut from glossy mag. The exhaust stub paper is also cut from magazine, folded and glued over balsa core and d off to suit.

Undercarriages - Spats - Wheels

Cut balsa leg fairing supports and glue to wire. Roll a nice curved section in each side of P11, remember L & R panels, and glue in position. Cut two spat panels (L & R Hand) and balsa members which require sanding to knife edge at rear. The spat pattern will 'belly-out' as it glues to member. Glue down one side first and then the other. Only glue tabs part way across member to allow for thickness of wheel. Finish with strip of paper over tabs. Wheels are two laminations of sheet, painted black. Cut and fit wheel discs on each side and finish with bush of aluminium tube. Slip wheel on stub axle and locate slot in spat between wheel and fairing, as end of axle passes through hole. Glue to bottom of fairing and put blob of glue on axle end.

Noseblock

Cut out F8, using the outline of F1 as a pattern, and F9. Assemble using three spacers cut to top shape and one spacer to bottom shape. Form and glue panels P7 and P8. Cut bearing from thin tinplate (beercan) and pierce with needle to fit 20G shaft. File smooth. Bend tips to make 'claws'. Bore hole approx. 1/16" dia. through assembly and firmly cement front bearing in position. Cement rear bearing lightly so that this can be realigned after flight testing to incorporate correct thrust line. Cement two short members on rear face to plug into F1.

Propeller

The spars are cut from hardwood, and are longer than the blade for handling purposes. Cut off flush after each blade is made up as described previously. The paper patterns are cut from heavy notepaper. Make up the simple jig illustrated. The base is 6" x 1½" card or balsa, with the centre lines well marked. The pitch jigs cut from card are glued 1½" from the centre line (3" total centres) with the vertical line on the horizontal centre line. Glue a block 1" square x 3/16" thick in the centre of the base and insert a short length of 20G wire vertically as a 'dummy' shaft. Pierce and thread F10 over the wire to lie on the block. Place blades on jig and butt together, after notching spar. When satisfied with fit, cement rear edge of hub on to F10 and where blades butt together. Thread F11 over wire and cement to front edges of hub. WITHDRAW wire carefully and allow to set. Remove from jig and apply more cement to make joint strong. Fit P9 (2 off) to form boss and paint with several coats of black to harden paper. Bend hook for rubber on prop. shaft and assemble through noseblock with bead or washers, slide through prop. hub and bend over at right angles, cut off and cement well to F11. Finish with spinner.





Mike sends the Interceptor away at Old Warden - it flew well and with very little trimming.

THANKS TO MIAMA MEMBER MIKE HETHERINGTON!

Flying

Rubber Power is one loop of 1/8" Pirelli 20" long. The long motor gives realistic steady ROG's and climbs. The prototype just about balanced along the wing spar. A small celluloid tab was added to the fin for turn adjustment. No down thrust was necessary but side thrust was used to obtain a nice right turn. The Interceptor flies very smoothly, much as one would expect from a much larger model. As I have commented elsewhere, this is typical of paper models. Finally, for those of you interested in such matters, a few sample weights are listed below.

Fuselage basic framework	1.3 grms.
Wing half	2.6 grms.
Tailplane	1.5 grms.
Fin	.6 grms
Wing complete with centre	5.3 grms
Propeller finished, painted	1.5 grms.
Model complete less rubber	19.0 grms.

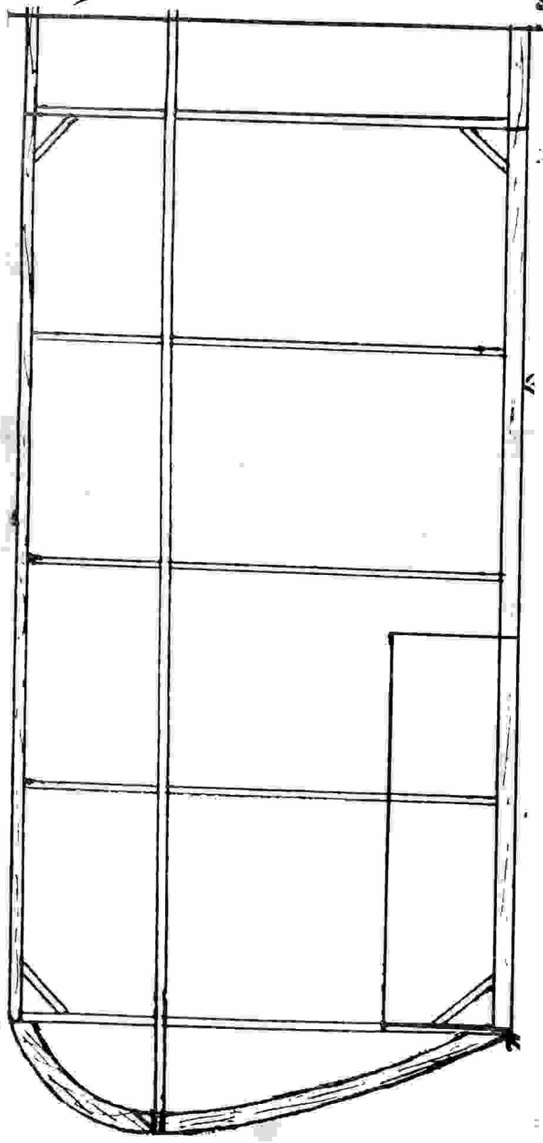
FRED PEANUT

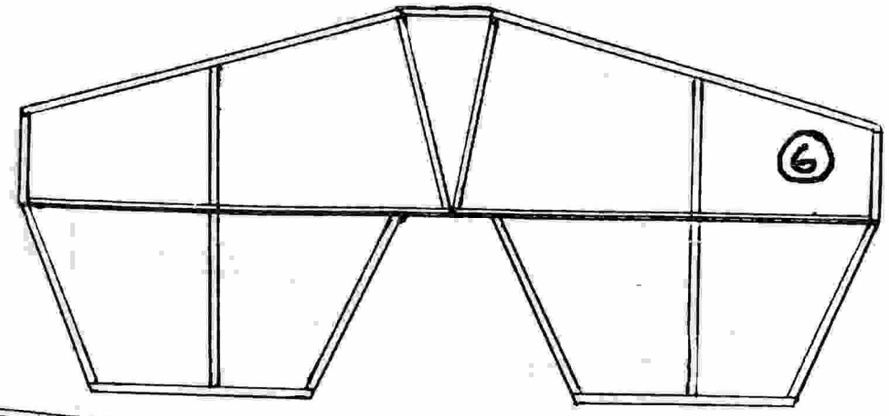
FROM FFFLIAR

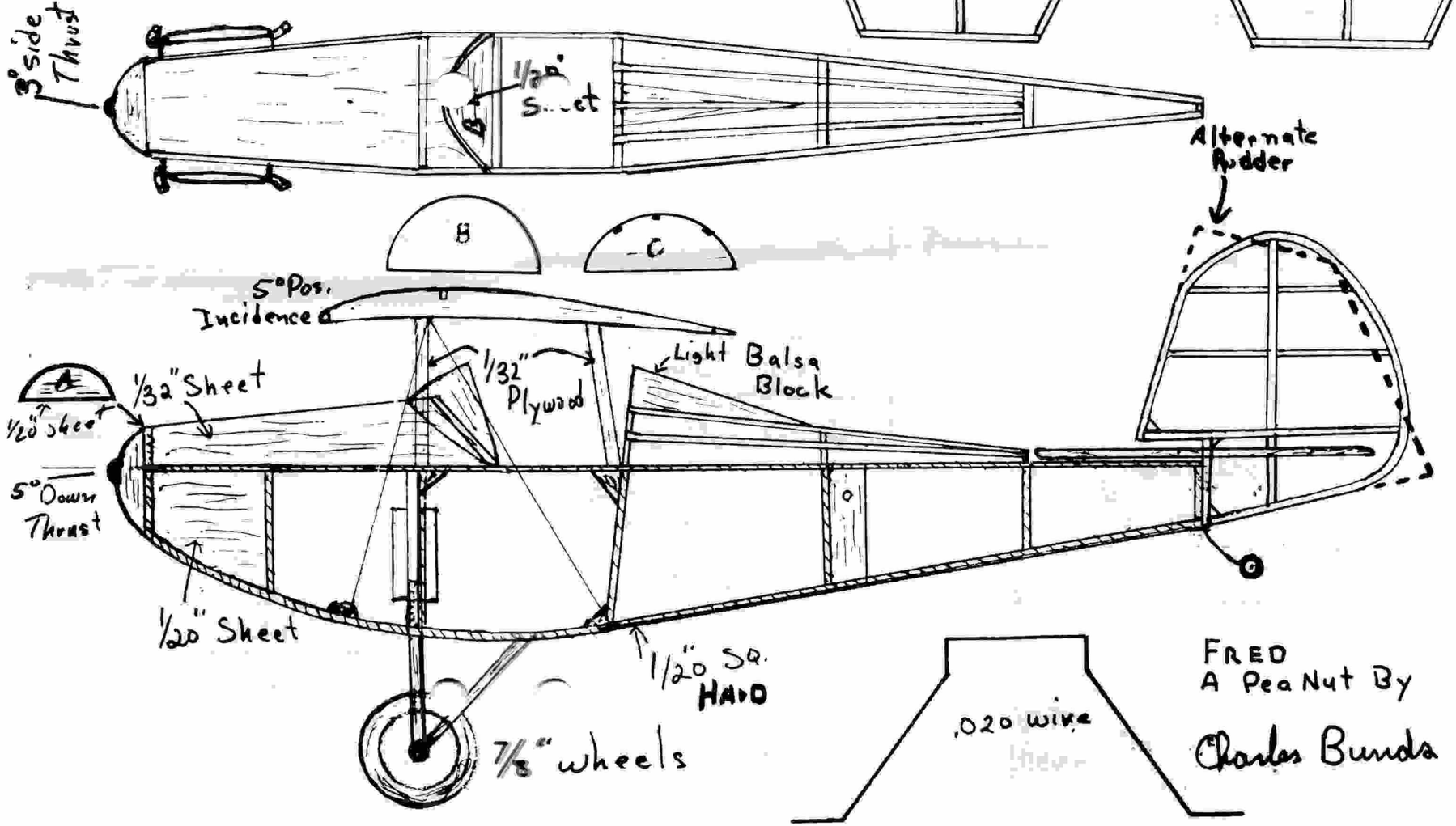
1/4" DIHEDRAL

1/2 WING: ASSEMBLE FROM 3-VIEWS.

Plans and photos provided to the FFFliar by Charles Bunds
201 Tulsa
Tullahoma, TN 37288







FRED
A Pea Nut By
Charles Bunds

FRED

A LACEY/FIKE PEANTER?

Fred is an English home built airplane. Fred stands for 'Flying Runabout Experimental Design'. The airplane is powered by a 1500 cc VW. The model pictured weighs 6½ grams. Is covered with condenser paper and trimed in red Japanese tissue. Note the washout, down and side thrust. This trim adjustment is for right flight. Good luck with your Fred, peanut.

The only deviation in the model from exact scale is the ¼" dihedral, and landing gear length-ened.

The model is a good flyer. I trimed it out in a 9½ foot ceiling. My best time is 39 sec., flying in 10 foot circles.

THANKS: BILL MATTHEWS AND CHARLES BUNDS

VOTE FOR JIM McNEILL

AMA TREASURER

A HANGAR PILOT - ENDORSEMENT.

FLY YOUR SEAPLANE FROM LAKE WELLS

NEXT MEET JAN 14

NEXT FLY-IN JAN 21

WE SAID - JIM McNEILL

POSTAL MEET - WE'RE SENDING OUR TIMES TO FLYING ACES IN PEANUT. THEY ALSO HAVE NO-CAL SCALE: SPAN 16" FUS. MAX ½" (PROFILE) M.L., TOTAL 3 FLIGHTS

Model Flyer "INTERCEPTOR"

A SCALE TYPE FLYING MODEL OF PAPER CONSTRUCTION.

Designed and drawn by Michael Hetherington.

Free copies (one per member) of this plan can be obtained on receipt of a stamped addressed envelope not less than 10" x 8". Please mark the envelope 'INTERCEPTOR'.

and send to SMAE Kimberley House Vaughan Way Leicester.

Note The plan should only be used for tracing patterns on suitable paper as described in the text and not for actual construction.

Larger quantities for schools and groups can be supplied on application.

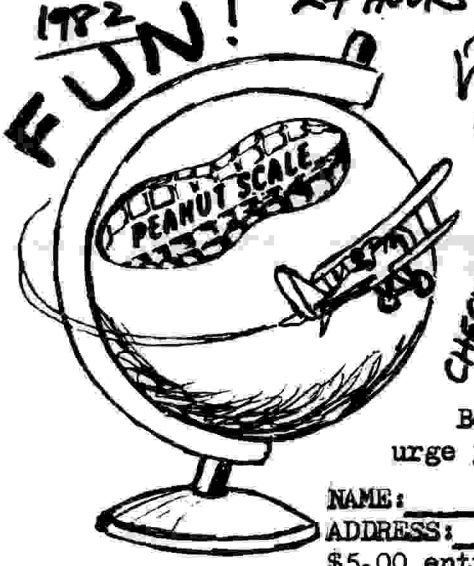
(8) Here we are again. Indoor Week June 12 to 19 1982. It is all but certain that the US Nats, indoor part, will be back at West Baden's Northwood Institute on June 14,15,& 16. It is certain that the NIMAS Annual Record Trials..VIINART, will be held, on June 17, 18,& 19, and the III World Peanut Grand Prix will be June 18-19. Got all that? This issue of Hangar Pilot has all the information and entry forms, etc. so send in your money, do some planning & building.

In its seventh year, the NIMAS Record Trials really needs no exposition. All the indoor community is familiar with the fine facilities at West Baden. It has been host to World FI-D Champs,International Time Trials, World Peanut Meets, and 1981 US Nats., all with enthusiastic acceptance. Need we say more!?

If you have never attended, feel free to bring your family sice there is much to do in the area when they tire of toy airplanes. The costs are low, the food is fine, the rooms are only college dorms, without air-conditioning and other creature comforts, so bring what you will need!

24 HOURS - FROM 8:00 PM JUNE 18 TO 8:00 JUNE

1982 FUN!



3RD WORLD G-PRIX

DEADLINE MAY 31 1982

PROXY ENTRY

CHECK → ☐ I NEED A PROXY FLYER

☐ I AM COMING TO WEST BADEN FROM ___ TO ___

☐ I WILL PROXY FLY .

Because of the many indoor events this week we urge you to make reservations for rooms early.

NAME: _____ AMA NO. & Class ____

ADDRESS: _____

$5.00 entry per class. Proxy entries limited to TWO Classes. Scale Judging will start By 10:00 AM June 18 for all entries. MIAMA AMA Peanut rules. R.O.G. in all classes but weirdo. Build to 13" span, or 9" overall length. Re-entries permitted, as are as many entries in each class as you want, if you are present. If you enter all 5 classes total entry fee is $20.00. Class I, Pioneer, Class II Warplanes (No civil types in war paint) Class III Golden Age (Between WW I & II) Class IV Modern, Class V Weirdo (Helicop, autogyro, Triplanes, multi-engined, Seaplanes and flying boats..No canards) OR MORE WINGS

I WILL ENTER _____

SEND TO MIKE ARAK 10900 SW 61 Ct Miami Fla. 33156 USA He will send special packing and shipping instructions.

VIINART ENTRY — INDOOR WEEK

ENTER BY MAY 31 1982 — JUNE 17, 18, 19 - '82

NAME:_____ AMA No. -_____ AGE GROUP_____

ADDRESS:_____

CITY_____ STATE:_____ ZIP:_____

I EXPECT TO ARRIVE IN WEST BADEN:_____ (DAY AND HOUR.)

THERE WILL BE_____ OF US AND WE WILL STAY_____ NIGHTS.

I AM ENCLOSING A CHECK FOR_____ BASED ON THE FEES BELOW:

I AM ENTERING THE FOLLOWING EVENTS;_____

WE WILL EAT_____ BREAKFASTS;_____ LUNCHES;_____ DINNERS AND WILL BE AT _____ BANQUETS (TWO ARE PLANNED)

This is an honor system. Please settle up before you leave if you stay longer, bring more people, or eat more than you planned.

SEND TOTAL AMOUNT TO : Dr. John Martin , 3227 Darwin St.
Miami, Fla. 33133, USA

SCHEDULE OF FEES: WE NEED HELP! → CHECK HERE

LODGING: Per person, each night.....$10.00

BREAKFASTS:	$ 2.50
LUNCH:	$ 3.00
DINNER:	$ 4.50
BANQUETS:(2)	$ 8.00

I WILL TIME ☐
I HAVE WHEELS ☐
I WILL SHOW SOME GOOD INDOOR HOME MOVIES ☐
I WILL TEND MAMA BAR ☐

DON'T FORGET YOUR PEANUT GRAND PRIX ENTRY FEES - ON SEPARATE SHEET

BUILD, FLY, PARTICIPATE. FUN!

ENTRY IN VIINART IN OPEN AND SENIOR CLASS: $ 20.00
IN JR. CLASS: $10.00
FOR GLIDER OR SCALE ONLY: $10.00

FIGURE AN ADDI TIONAL DOLLAR FOR EACH CLASS ENTERED IN VIINART.

SCHEDULE: FROM June 13 to June 16 is the AMA portion of Indoor week..you will be notified by mail.

THURS. 17th"Heavy indoor Models"
FRI: 18th: Turn in all scale models by 10 AM. "Light indoor models". NIMAS AWARDS BANQUET at 7:00 PM. WORLD PEANUT G/P at 8:00
SAT: 19th: GLIDER AND SCALE , Also last half of world peanut G/P. Peanut speed, and many "fun" events, mass launch, etc.
8:00 PM... end of World peanut G/P AWARDS BANQUET 8:30

THE LATEST INDOOR NEWS INSIDE

THE HANGAR PILOT

EDITOR: DR. JOHN B. MARTINI. MIAMA

3227 DARWIN ST. MIAMI FLORIDA 33133

PM
1982
331

USA 20c

TO:

JIM MILLER
827 YORKHAVEN RD
CINCINNATI OH 45240

1ST CLASS

NOT JUNQUE MAIL