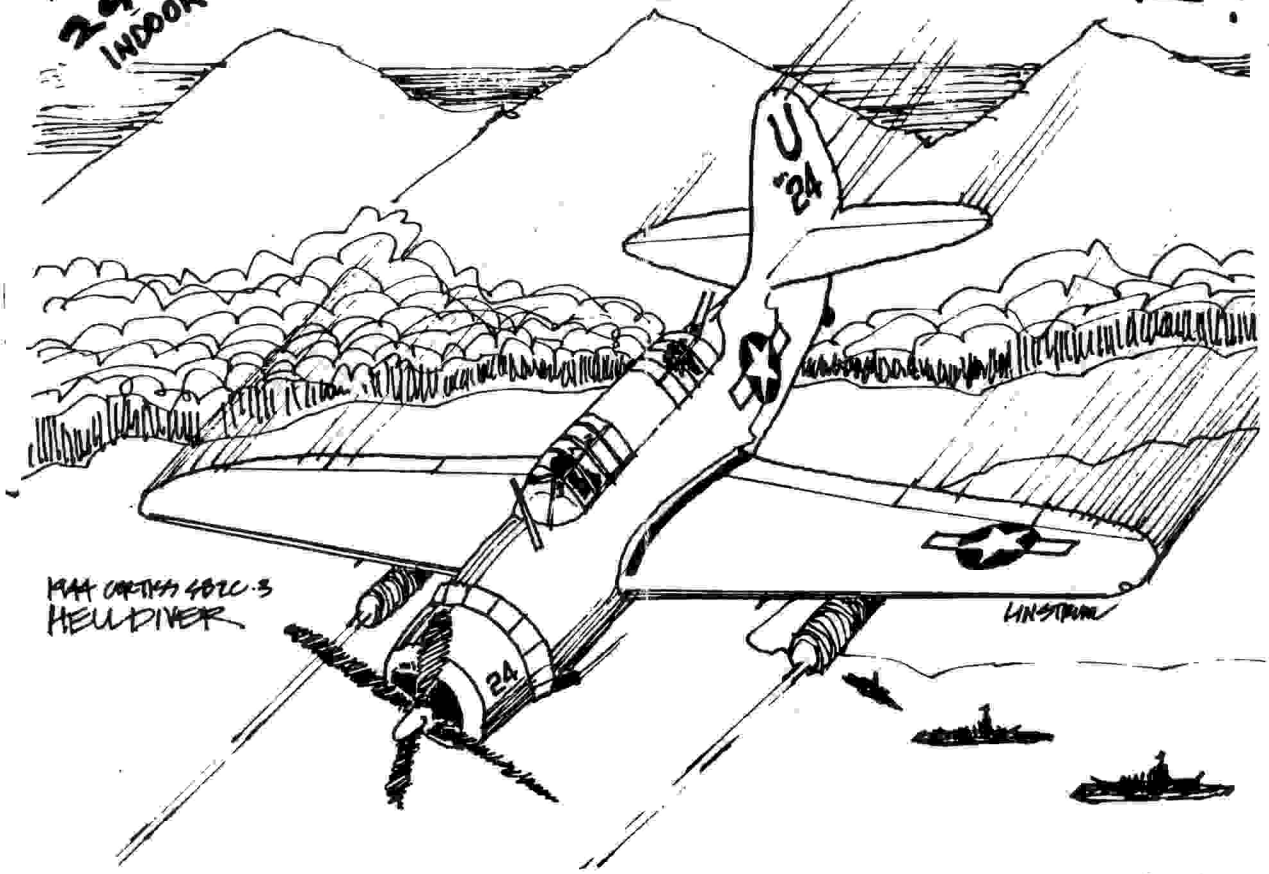
THE HANGAR PILOT

MIAMI INDOOR AIRCRAFT MODEL ASSOCIATION — MIAMA

ISSUE 172

24TH YEAR OF PUBLICATION
INDOOR ISN'T FOR EVERYONE

- TWO RECORD BREAKING MINI-STICKS
- RESULTS OF MIAMA MEET 6
- THE RETURN OF VTO'S "INSIDERS"
- HARDCASTLE'S HIGH TIME PENNY
- NOTHING AT ALL ABOUT LEGAL EAGLE!



KAA CURTISS SBZC-3
HELLDIVER

NEXT LOCAL EVENT- M/D SOUTH COLLEGE MAY 13
NEXT MIAMA MEET- #7 MACDILL MAY 20,21



"LIKE A LETTER FROM HOME" Whelan

THE HANGER PILOT

The Hanger Pilot, edited by John Martin Jr., who is solely irresponsible 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) - AMA club 3624 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.

MIAMA SECRETARY-SIDNEY GILBERT FIELD MARSHAL BILL CRISS

FLYING ACES SOON. NUMBER II - FAC

Meet Report - MIAMA MEET 6 - Here's a hand written report due to lack of time to go to press. We were in Hanger #3 instead of #2, and it actually has more room in it despite aircraft on each side against the wall. With one meet to go all classes, and even total points are very close. Sidney and Eileen Gilbert are keeping the total points. Dave Linstrum will CD the last meet (#7) on May 20+21, just 2 weeks before the Johnson City meet

ROGER WATHEN KEEPS JETEX FLYING

"Interested in Jetex flying, plans, fuel and engines? Join the more than 300 some already receiving the only newsletter designed for the promotion and preserving of Jetex flying. Subscribers as far away as Saudi Arabia and Switzerland are receiving this rag. Issue number 9 started off with full size plans, and three views for those who'd like to create their own models. There's even a "technical" section and photo page of the readership's creations. Subscription is $9.00 currently in the United States, $10.00 for Canada; and $12.00 if in Europe ($14.00 - Brown enveloped), surface $11.00, and if Australian or Japanese subscription, $14.00 ($16.00 brown enveloped) Single back issues are $2.00 each except in Australia and Japan which would have to be $3.00 including postage unless purchased as a group by Volume number. Those persons in countries other than Europe and The United States who would want back volumes need to add $3.00 extra per volume for overseas postage. Those in Japan and Australia would need to pay 4 dollars per volume because postage to send there is more than it is to send to Europe. This will save you some postage costs. Vol 1, #'s 1-6 runs $6.00; Vol 2, #'s 7-12 runs $7.00; and Vol 3, #'s 13-18 will run $9.00, and following volumes are $9.00 each. (more pages and full size plans). Currently, we are on issue # 33 and each issue is 'Theme' oriented.

Send replys to Roger L. Wathen Sr., P.O. Box 18251 Indpls, Ind. 46218 Phone 1-317-547-5963"

"Individuals, teachers, youth groups and libraries. I have the following model aviation mags for sale: M.A.N., M.B., A.M., A.A.M., F.M., A.T., and M.A. No complete set will run more than $5.00 except A.M., A.T., and M.B. Send large SASE (two stamps) to Roger L. Wathen Sr., P.O. Box 18251, Indpls, Ind. 46218 Phone - 1-317-547-5963"

Thanks again for your continued support.

Jetex Forever,

MIAMA MEET 6 - MAC DILL - APRIL 30,31 1995

②

AMA PEANUT SCALE:

		Static	Two best flights		
1.Don Brimmer	Lacey	82.5	1:16	1:22	161.5
2.Sid Gilbert	Fike	82.8	1:15	1:18	159.3
3.Millard Wells	Eastbourne	79	1:07	1:08	146.5
4.Doc Martin	Goldwing	72	1:14	:53	134.5
X M. Wells	Curtiss P-40	93	:52	:53	145.5
X M. Wells	Pietenpol	69.2	1:02	1:05	132.7
5.Walt Schlesinger	Fike	83	:45	:45	128

FLYING ACES SCALE

1.Wayne Trivin	14-Bis	80	1:45 (78.7)	158.7	RETIRED
2.Millard Wells	Waco E	69	1:18 (69)	138	2 Wins
3.Jake Larson	Tiger Moth	67	:53	120	
4.Doc Martin	Ike	58	1:13 (61.5)	119.5	
5.Sid Gilbert	Comper Swift	52.5	1:15 (66,5)	119	
6.Don Brimmer	Cessna	58	:52	110	
X Doc Martin	Beardmore	74	:33	111	
X M. Wells	Curtiss Falcon	68	:43	111	
7. Walt Schlesinger	Lep.Moth	57	:33	90	

MIAMA PISTACHIO SCALE

1.Don Brimmer	Citabria	2	:57	1:07	2	4
2.Doc Martin	Goldwing	3	:53	1:14	1	4
3.Dave Linstrum	Falke	3	:37	:47	4	7
X. Doc M.	Quetzalcoatl	3	:48	:58	3	6
X. Don Brimmer	Jungman	1.	:44	:36	5	6
4. W.Schlesinger	Cougar	3	:28	:28	5	8
5. Sidney Gilbert	Fike	4	:43	--	7	11

MIAMA PISTACHIO MODEL OF A MODEL

1.Dave Linstrum	Mike Farthing	1:29	1:28.8
2.Charlie Johnson	Pussy Cat	1:28	1:22
3.Don Brimmer	Pussy cat	1:08	1:07
4Sid Gilbert	Pussy Cat	1:02	1)06
5. Walt Schlesinger	P.C.	:34	:16

MIAMA COCONUT SCALE

L.Ric Choate	Found	1:43
2.Dave Linstrum	M-17	1:11
3.Doc Martin	Beardmore	:38
4.W.Schlesinger	Lark	:21

AMA Catapult Glider

1.Carl Hedley	:26	:28
2.Don Brimmer	:26	:21

LEGAL EAGLE

1.Wayne Trivin	Barely Legal	596
2.Newt Bollinger	Foiler	455
3. Newt Bollinger	White Bronco	431
3.Carl Hedley	Paper Chase	414
1.D. Linstrum	Over Legal Limit	369
3. D, Linstrum	Mistrial	278

NEW STATE RECORD

MASS LAUNCH:

MIAMA PEANUT

1.Don Brimmer
2.Millard Wells
3.Bill Criss
4.W. Schlesinger
5.Sidney Gilbert
6.Dave Linstrum

MIAMA DIME SCALE EVENT:

1.Dick Obarski	Curtiss Robin	284
2..Don Brimmer	Cessna	265
3.Carl Hedley	Curtiss Robin	261
4.Wayne Trivin	Mr. Mulligan	222
5.Doc Martin	Messerschmitt M-29	181
6.Millard Wells	Rearwin	155
7. Sidney Gilbert	Puss Moth	151
8.Dave Linstrum	Puss Moth	149
9.W. Schlesinger		91

AMA EASY B:

1.Dick Obarski 15:10
2.John Barker 12:46

MINI STICK

1.John Barker 8:00
2.D. Obarski 6:47
3. C. Johnson 6:16

PENNYPLANE

1.J. Barker 9:20
2.W. Everson 6:12

UNLIMITED PENNY

L. W. Everson 7:48

FLYING ACES NO-CAL SCALE

1.Wayne Trivin	Farman	3:15	TIE
1.Joe Nuszer	Hostler	3:15	TIE
3.N. Bollinger	Lacey	3:11	
4.D. Obarski	Lacey	3 ;03	
5.5. S. Gilbert	Finnaire	2:57	
6.D. Linstrum	PIK-21	2:56	
7.Carl Hedley	Zero	1:57	
8.Don Brimmer	MO-1	1:10	
9.W. Schlesinger	Avia	:32	

FLYING ACES EMBRYO ENDURANCE

1.J. Barker	Swordfish	506
2.W. Trivin	White Bird	498
3.C.Hedley	En Vitro	427
4.D. Linstrum	Swamp Bird	309
5.D. Brimmer	Hornet	307
6.E. Thomas	Hornet	306
7.S. Gilbert	Top Banana	254
8.W. Schlesinger	12½¢	131

AMA BOSTONIAN EVENT

L.Trivin	No Color	499.5
2.Barker	Scimitar	431.2
3.Gilbert	6 of 7	402.9
4.Wells	Blue Fin	308
5.Headley	Basic Bost	297
6.Thomas	Basic Bost	250.8
7.Bollinger	O.C.	237.5
8.Brimmer	Ugly	203.5
9.Schlesinger	Bean	91.3

MASS LAUNCH EVENTS

COCONUT MASS:

1.Ric Choate
2.Dave Linstrum
3.W. Schlesinger

LINSTRUM HOT CAKES:

WINNER: WALT SCHLESINGER

FLYING ACES LOW WING:

1.Millard Wells
2.Doc Martin
3.Dave Linstrum
4.Walt Schlesinger

BELATED KING ORANGE RESULTS:

MEET 4 MINI STICK:

1. Dick Obarski	9:54	New Record
2.John Barker	8:39	
3.Charles Johnson	5:36	

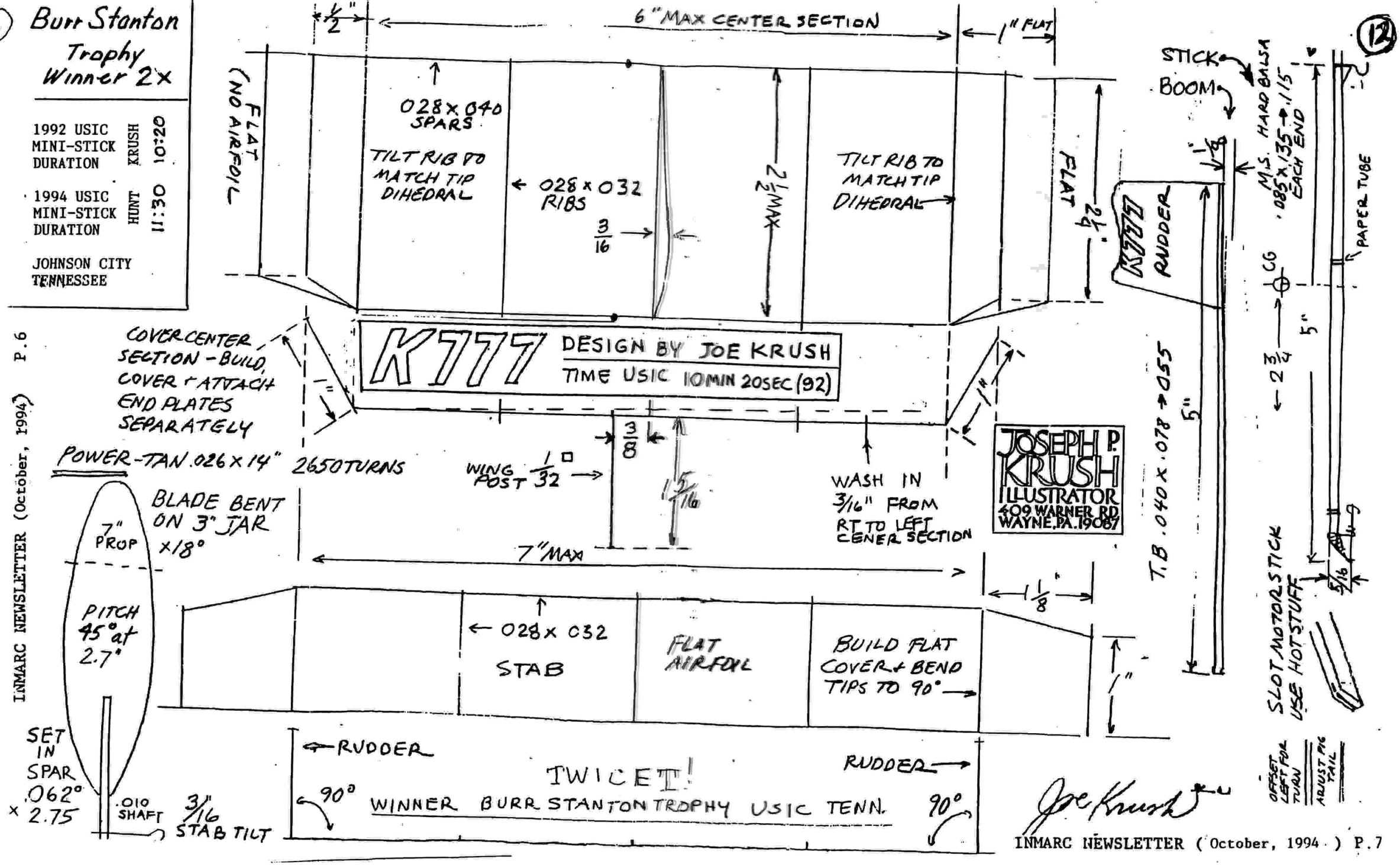
Catapult Glider:
1. Don Brimmer :43 :44

(3) Burr Stanton Trophy Winner 2x

1992 USIC MINI-STICK DURATION KRUSH 10:20

1994 USIC MINI-STICK DURATION HUNT 11:30

JOHNSON CITY TENNESSEE



(12)

Joe Krush

the INSIDERS

BORN AGAIN !!!!!! by Dave "VTO" Linstrum MIAMA

This is a new bi-monthly column for the Hangar Pilot which will be on a wide variety of subjects. Your inputs are welcome, and contributions of material priceless!

27th ANNUAL NFFS SYMPOSIUM REPORT NFFS

Edited by the venerable Bob Meuser, this is one of the best from a fine family tree. The cover article gives you a better idea of how lift REALLY occurs as your model flies, and there is another article on how it does NOT happen! While part of the book is all aerodynamics, by experts like Phillips, Xenakis, Cole, McCombs, the is plenty for the layperson: Ten Models of The Year (includes Andy Tagliafico's "Plum Easy" EZB and Tom Vallee's Mini Stick Event), 2 portfolios of Nakashima cartoons, and a superb history of Flying Scale by Bill Warner.

While the Symposium Report was originally intended as a vehicle for the publication of technical articles, it has matured into a book for Hangar Pilots of all kinds. We recommend it for your armchair reading pleasure. The 1995 Sympo will soon be out (USOC) so we suggest you read the 1994 now. Order from: Fred Terzian NFFS, 4858 Moorpark Ave. San Jose, Ca. 95129. Price postpaid is $20 (NFFS member) or $24 (non-member). Ask for a list of past editions, and info on how you can get a nice discount if you buy a button D/T device from Fred.

(5)

MAY 1995 - PM2L-EVEN THINNER THAN "ULTIMATE"

PM2L COVERING & HANDLING

PM2L is a super thin plastic material that can be applied to frames and hoops with spray adhesive such as 3m's Spray 77 or, Elmer's SAF*T CONTACT CEMENT, thinned one part cement to ten parts water. Thinned contact cement permits the use of a razor blade for trimming the excess film after drying for at least 6 hours. The usual method of trimming with a pencil soldering iron may also be used if preferred.

Covering can be accomplished with PM2L as received or, crinkled and re-stretched. Loose film at dihedral joints can be tightened by applying water on top of the film using a fine brush, much in the same way as handling microfilm. This material can also be used for patching holes in microfilm with the usual atomized water spray.

The weight loss factor (approx. 2/1) of using PM2L vs. microfilm is a deterrent but dimensional stability, puncture and shock resistance are much better, all of which would minimize problems of shipping and handling models.

SPECIFICATIONS

	Wght. in oz. per* 100 sq. in.	Thickness in inches
Ultra Film (Ray Harlen)	.0045	.00006
Ultimate (Wayne Trivin)	.00366	.000047
PM2L	.00271	.0000353
Microfilm	.0015 Appx.	Varies

* above weights determined using a Harlen beam scale. Weight for microfilm varies depending on sheet color after pouring.

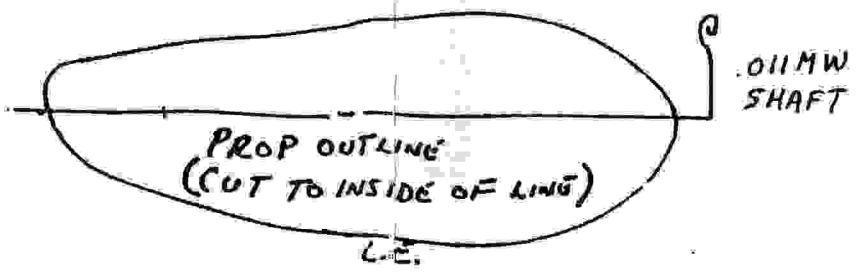
PM2L - USA PRICE $15.00 / 15Ft. P. Pd.
SEND TO:
R. W. OBARSKI
2112 N. HALCYON DR
SUN CITY CENTER, FL
33573

"ECIMINI"
BY BOB EBERLE
MINISTICK

BEST TIME 13:31 CAT III RECORD
ON 7/4/94 AT LAKEHURST, N.J.
.027 x 12 1/8 TAN II 2820 TURNS

ALL BALSA 4.0 - 4.5 LBS/FT³
EXCEPT POSTS & PROP SPAR 5-6 LBS.

FROM DOMEDUSTER (6)





PROP SPAR .060 DIA → .030 DIA x 3 1/4 LONG

PROP BLADES .010 → .006 AT TIPS
7-17 PITCH

SPARS .027 W x .040 H

TOP VIEW

T.B. .062 DIA → .030 DIA
T.B. OFFSET 1/8" UP, 1/8" LEFT

M.S. .105 W x .170 H

SPARS & RIBS
.027 W x .092 H

FLAT RIBS

REAR VIEW

LEFT STAB
TILT

.040 POSTS
x 1 3/8" LONG

.009 WIRE

4% ARC (.100 H)
RIBS .027 W x .030 H

2° LEFT-
THRUST

4° UP-
THRUST

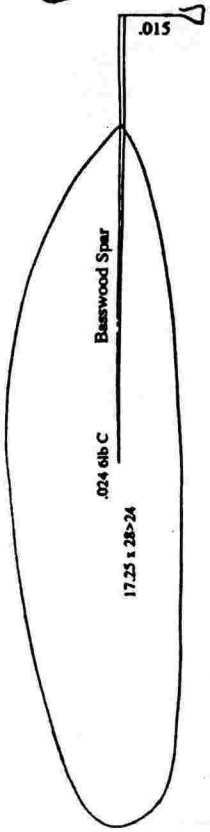
.012 MW
DIA

7/32

JUST ENOUGH TIME LEFT TO BUILD THIS FOR JOHNSON CITY

(7) DICK HARDCASTLE'S PHILADELPHIA PENNY

Biplane 1980



Wing 85 Sq in /wing

Stab 62 Sq. in

Features

The Philadelphia Penny Biplane is an outgrowth of my monoplane penny built in 1973. You will notice the Philadelphia Penny incorporates a number of Dennis Jaecks' concepts. Dennis and I flew together many times in Chicago. We all learned a lot from Dennis. I still miss him.

This model is a rather straight forward biplane, but it does have a few features that are a little different:

The center wing posts have been eliminated. Basswood struts made from HO scale lumber separate the wings. I believe this reduces drag.

Simple tungsten wire cross-bracing gives the wing structure ample strength. The wire bracing is glued at the cross points.

The motor stick is turned approximately 70 degrees to the left. I believe this reduces the chances of a power stall at launch. Under full power the motor stick bows giving additional left thrust and this helps offset the reverse stab tilt caused by the motor stick twisting.

%9

The thrust bearing is made from an aluminum can. A Richmond pigtail (.015) is used as the second bearing. The front bearing is oversized and has five prop shaft holes not just one. This permits quick thrust adjustments at the flying site by simply inserting the prop shaft through a different hole.

Fig. 1 is a rough sketch of the front bearing with five prop shaft holes.



Fig. 1

%9

Microlite covering (best available in '80)

The stabilizer is mounted below the tail boom. Dennis believed the stab should be well out of the way of wing wash. I don't know if th's helps or not, but the use of posts and paper sockets makes for easy incidence adjustments.

The prop is 17.25 inches in diameter and has a a pitch of approximately 28 inches near the hub and approximately 24 inches near the tips. It has less area than the Jaecks prop. The prop spar is made from flexible basswood and this is the key to this model's success. The basswood gives the "spring" to the spar to permit flare under high torque and still return to a lower pitch for the cruise and descent. The blades are made from .024 6 lb C grain and are sanded to .018 on the leading and trailing edges. The blades were warped soaking them in aqua ammonia rather than water. Believe balsa holds shape longer, if aqua ammonia is used. The prop shaft is .014. It's not strong enough to handle really high torque. Suggest using .015. A "S" hook is used to keep the rubber centered.

I keep saying that I will make a new Pennyplane and when I do here are the changes I will make to this model:

Cover with Wayne Trivin's film.

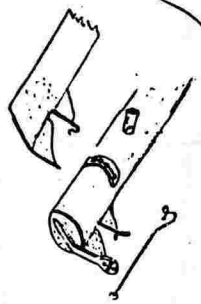
Build polyhedral wings not V-wings. Believe polyhedral handles initial power burst better.

Increase airfoil progressively on Inboard wings and reduce washin.

Streamline leading edges of wings and stab, somehow.

Reinforce selected balsa with boron—wing struts, posts, etc.

Build a VP prop.



Larger Fig 1

Performance

'80	Anderson IN	10:25 (1) Site Rec
'80	East St. L IL	10:44 (1) Nat'l Rec
'81	Nats W. Baden	13:30 (3)
'82	Nats W. Baden	10:45 (?)Broke prop
'83–'90	No Flights	No indoor for 7 yrs
'90	USIC J. City	12:40 (9)
'91–'92	No Flights	
'93	USIC J. City	14:33 (6)
'94	USIC J. City	16:56 (1) Site Rec
'94	Kibbe Dome	15:47 (2)
'94	Nats Lubbock	15:19 (1)

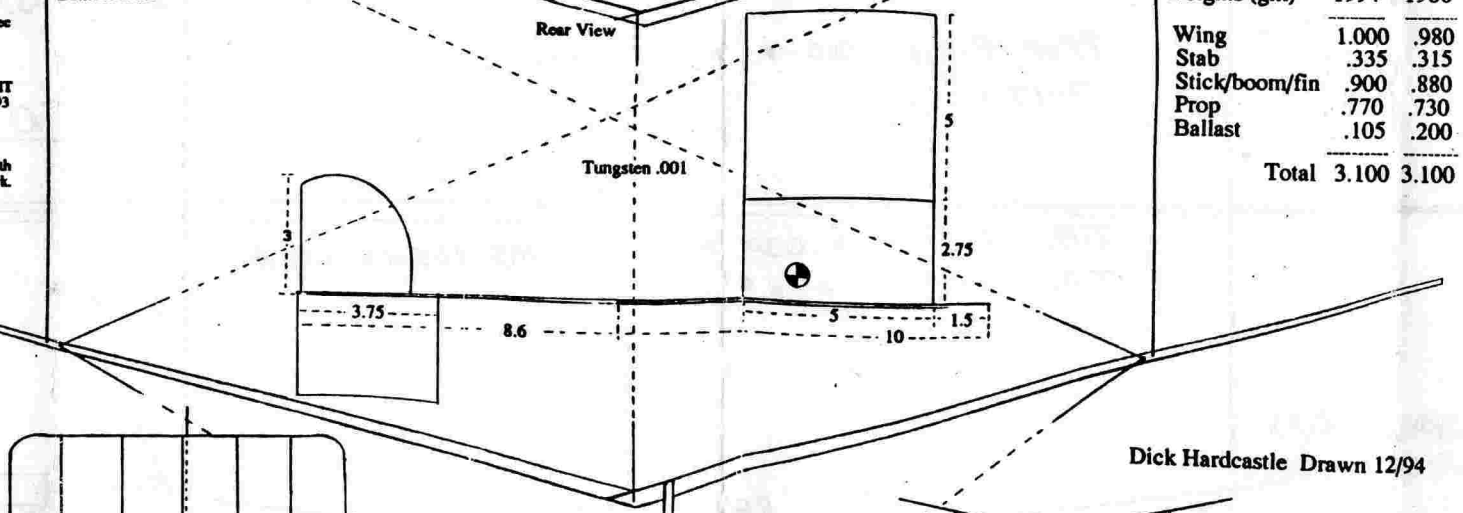
1994 USIC PENNYPLANE FLIGHT
Power: .107 x .040 x 17.1" tan II 8/93
Weigh: 2.37gm (.084 oz)
Winds: 1,900 - torque .9 in oz
Winds/launch: 1840 torque .55
Flight: 16:56 No touch - Landed with 5% knots - almost dead stick.

HO Scale
Lumber 2 x 2

Basswood Strut

Rear View

Tungsten .001



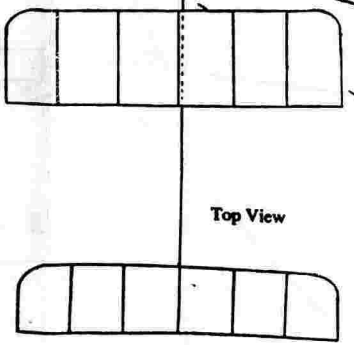
Weights (gm)	1994	1980
Wing	1.000	.980
Stab	.335	.315
Stick/boom/fin	.900	.880
Prop	.770	.730
Ballast	.105	.200
Total	3.100	3.100

Wing spars: .043 x .073>.045 5.0 lb B
Ribs: .045 x .065 4.5 lb C
Stab spars: .036 x .073>.036 6.0 lb B
Ribs: .040 x .053 4.7 lb C
Wing and Stab posts: .062 rd. 10 lb.
Motor Stick: .025 x .330 OD 4.5 C
Tail boom: .013 x .28>.18 OD 4.5 C
Prop Spar: Basswood .055x.065> .022x.032 in 4.7"
Blades from .024 6 lb C
Prop shaft is .014 w/"S" hook. Suggest .015 music wire

Construction Notes and CG

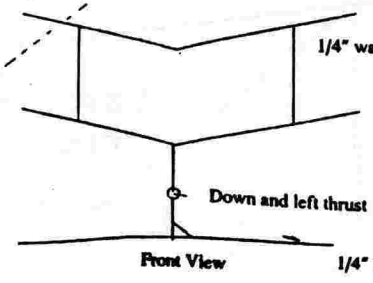
Model balances with 2.35 gms of tan II 5.15 inches from front bearing. This gives a CG of 73% of wing chord. The model balances at almost the same CG without the rubber. This is good. As the rubber increases in size and weight the model flies on the same CG and trim is not effective. I really didn't plan it that way and only found out about it when I took the time to weigh and measure for this report. How lucky can I get! No wonder this plane flys great in Cat I and Cat IV.

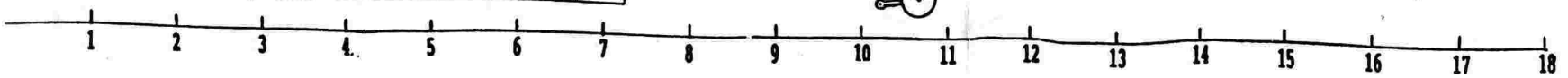
Top View



1/4" offset

Dick Hardcastle Drawn 12/94





crolite covering | (best available in '80)

izer is mounted below the tall
nnis I believed the stab should
t of the way of wing wash. I
v if th's helps or not, but the use
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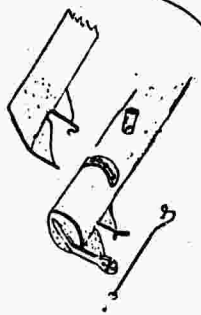
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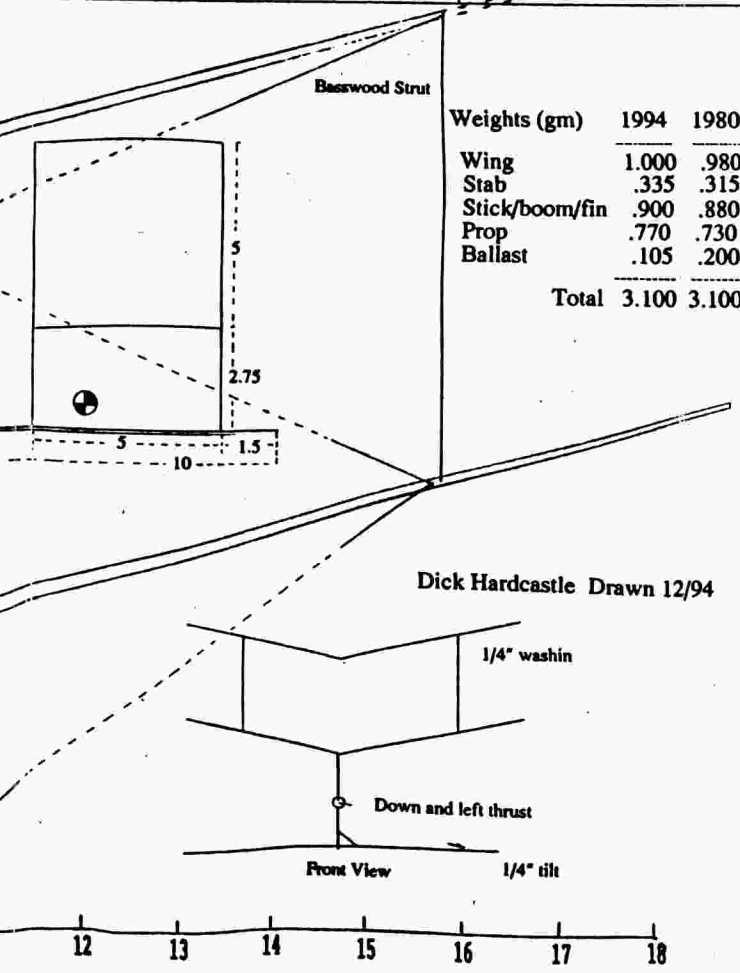
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Build a VP prop.



Larger Fig 1



Weights (gm)	1994	1980
Wing	1.000	.980
Stab	.335	.315
Stick/boom/fin	.900	.880
Prop	.770	.730
Ballast	.105	.200
Total	3.100	3.100

FROM EARL VAN GORDER'S FLEDGLINGS' COLUMN - (8)
MILLARD'S SON — BOB

even when I was looking at it! What was it? It was a sample sheet of the best German World War One hexagon camouflage tissue I have ever seen! The colors are 100% authentic, having been taken from specs in WW I Aero publications and are printed on ultra lightweight Gampi tissue.

Rob Wells, who sent the sample said he has been researching both colors and method for 4–5 years. He refused to discuss his method but said that anyone with a graphic arts background could figure it out. Well, I don't have such a background so I have no idea how he accomplishes this "magic".

What really surprised me was that he said that he had no idea of aggressively marketing the product.

Now, he did give me permission to tell you about this and also said that he would be willing to sell, or trade, with interested parties if they contacted him.

Now, he gave no idea of what kind of price would be appropriate for this product, but I can tell you that the super high grade Gampi tissue that he used cost $4.50 per sheet.

Now, this is one of those cases where I can't guarantee anything, but I can give you his address and simply tell you that you're on your own from there. Here's the name and address: Rob Wells, One Rockingham Drive, Wilmington, DE 19803.

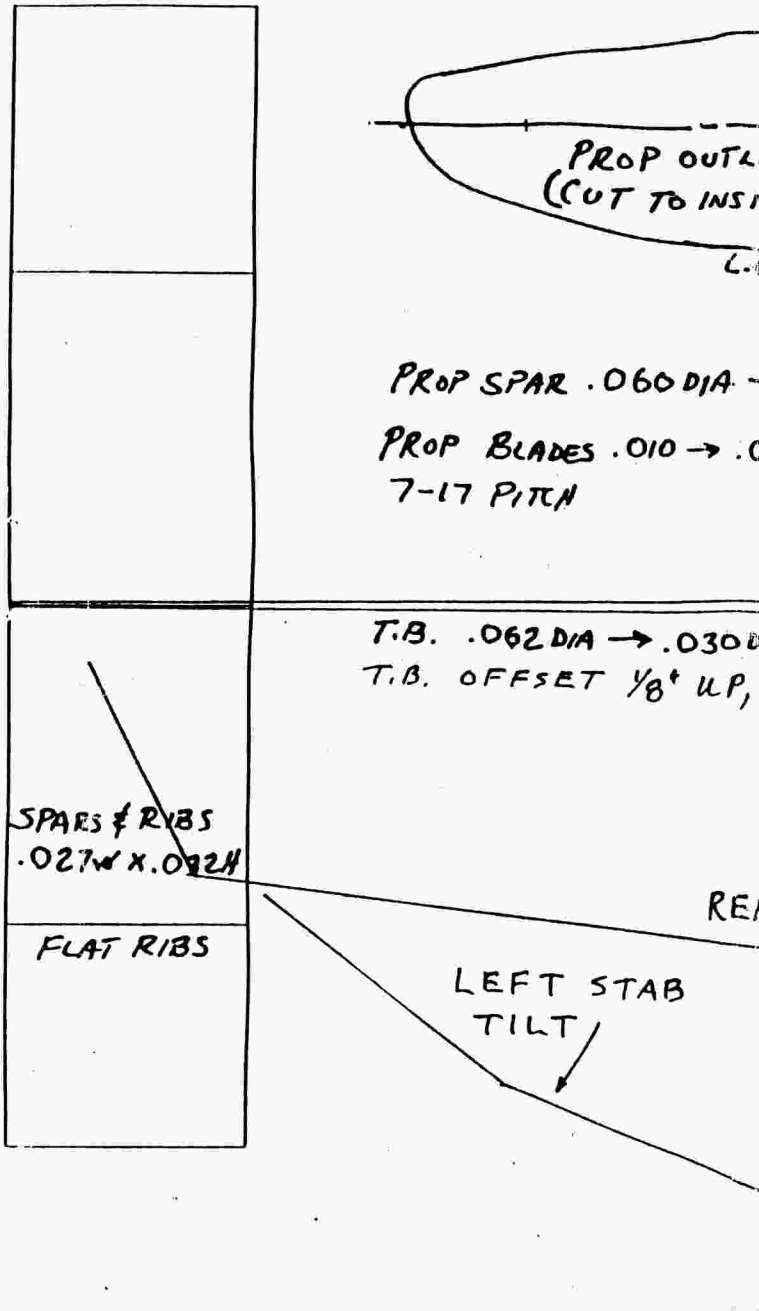
SLIPPERY STUFF

Bernie Coyner, of Solvang, California, recommends Plumbers' Silicone Lubricant WG-1, available from hardware stores, for rubber motor lube. At about $3 for a 1/2-ounce container, it may seem pricey, but not much is required to lube small model motors. Bernie places a pea-size dab of it in a plastic sandwich bag, drops in the already-tied rubber loop, and massages it through the bag until the rubber is well lubed.

BETTER THAN SON OF A GUN ?

FROM LARRY KRUSE'S "FLYING MODELS" COLUMN

"ECIMINI" BY BOB EBERLE MINISTICK



Tips on finishing

Responding to my comments on finishing techniques from a couple of columns ago, Claude Powell, an outstanding member of the equally outstanding D.C. Maxecuters club, wrote to offer even better ways of treating tissue covering. Claude recommends using thinned white glue applied with a small brush for sealing those areas where one layer of tissue overlaps another. That makes a great deal of sense. The method I use, running a thin bead of dope between the two layers many times results in the tissue popping up as it dries. Claude's technique would ensure that the fibers of the tissue are pliable enough to lay down. Any white glue oozing out could be removed by capillary action with the corner of a facial tissue.

Claude also says he's found an easier and warp-free way of putting a light moisture-resistant finish on tissue. Immediately after spraying a covered framework with alcohol, pin it down to dry. After 24 hours, lightly mist on clear auto lacquer from auto paint aerosol cans obtained at K-Mart. It will take two or three layers of mist to start to see it on the covering; however, you only have to wait from four to six minutes between coats because it dries so fast. Add misted coats until you're satisfied and leave everything pinned down another 24 hours. The bottom of the surfaces can now be treated the same way, but there's no need to pin them down. Claude says the first lacquer application to the *top* surfaces seems to "lock-in" or "set" the framework so it won't warp.

Do make sure the room your working in has adequate ventilation and always wear a respirator mask when spraying lacquer based products. Claude, I'm going to try your lacquer spray tip on my Bostonian currently under construction.

LARRY KRUSE HAS MUCH IN HIS "F/F SPORT" COLUMNS IN "FLYING MODELS" FOR FAC FLYERS + INDOOR FLYERS. HERE IS A SAMPLE. PICK UP A COPY OF FLYING MODELS FOR MORE.

It all comes out in the wash (part II)

Last month, in the first part of this mini-series on the use of wash-in and wash-out, we treated wash-out as it related to wing structure, and its uses in enhancing flight stability. This month, we tackle wash-in. As was the case with wash-out, the term "wash-in" is used primarily in relation to the wing and its effect on both the powered and glide portions of a model's flight. For our purposes, wash-in means that some part of a wing's trailing edge is bent down or gives that portion of the wing a more positive angle of attack than the rest of the wing. The most common uses of wash-in are to control the powered portion of the flight, or to induce a model to stay in a pre-set glide circle without dropping one wing and spiraling out of the glide circle as velocity increases.

It works this way. Let us suppose we are trying to set both the power pattern and the glide path of a high-winged rubber-powered model. We know from experience that in order to optimize the power pattern of our model and stay away from the problem associated with the initial torque burst of a fully wound motor, we need to make the model climb to the right. To do so, we include several degrees of right thrust in our power setting by shimming the left side of the noseblock. The effect is, of course, to turn the model to the right.

Accompanying this turn, however, is the tendency for both the nose and the right wing of the model to drop as it enters its turn. As our model accelerates from the point of release, its right wing tends to drop even more as speed builds up under the initial torque burst. The result of all of this turning and speeding and dropping is, more typically than not, a major dork into the ground, followed immediately by multiple cartwheels. Even under the best circumstances where the model does not crash, it does spiral toward the ground in a gradually tightening turn, thereby killing any chance of the model climbing into a useful power pattern.

The cure for this catastrophe in the making is the addition of wash-in to the right wing panel. Approximately ⅛ inch of wash-in about three-quarters of the way out from the dihedral break on a wing with simple dihedral, or at the polyhedral break on a wing with polyhedral will correct the situation immediately. Should the turn be a bit too tight yet, then reduce the right thrust, or use a bit of left rudder tab to open up the turn.

But I digress. What we're interested in here is the effect of wash-in. The increased angle of attack at the point of wash-in keeps the wing up, yet allows a climbing turn to the right. As the model speeds up under the initial torque burst, the wash-in remains proportionately effective, because the lifting effect of the greater angle of attack at the point of wash-in increases with the speed.

Wash-in the glide works the same way. For high-wing models with free-wheeling props, it is preferable to keep the model circling to the right as it transitions from power to glide because the spinning prop will naturally turn the model in that direction any way. The wash-in used to control the power pattern will now keep the right wing up during the glide, even if the model accelerates under thermal conditions. For models with folding props, a glide in any direction is okay and can be controlled primarily with stab tilt (model flies to the high side of the stab as viewed from the rear).

Low wingers are just the opposite. They should be flown to the left with wash-in of the main left panel used to keep the wing up during the power burst. A small amount of left rudder may also be needed to keep a low winged craft in a left turning glide after the power runs out. The combination of wash-in of the left wing panel (greater angle of attack) and the natural tendency of a free-wheeling prop to turn the ship to the right often spells a very brief, although spectacular spiral directly into the ground from a considerable height if the ship is not kept flying to the left. Keep in mind that low wingers also benefit from the use of tip *wash-out* to improve their flying characteristics.

Next month, in our third and final part in this mini-series, we'll go through the process of setting a model up for optimal flight using wash-in and wash-out.

(11)

PREPARE NOW FOR THE CELEBRATED MILLARD WELLS ISLAMPRADA ROW MEET.

3 FAC KANONES - PUT FLOATS ON YOUR PEANUT FAC SCALE COCONUT

SQUIRT IT WITH SCOTCH GUARD, AD 20% MORE POWER



"I'll be all right in a few minutes. The people at the next table were drinking Scotch and 7-Up!"

8th ANNUAL FLORIDA KEYS R.O.W. MEET

Saturday, July 29th, First Light - 6:30 AM to 9:30 AM.

AWARDS BREAKFAST - Back Dining Room, Plantation Yacht Harbor - NO HOST

MILE MARKER 87

GENERAL: 3 Flying Ace Kanones
* P-Nut Scale
* FAC - Scale
* COCONUT (36") Scale

NOTE: DO NOT hand launch over contest site. Chase boat must be free to pick up R.O.W. Contest Flights only.

Test Flights may be made in field behind Contest Site.

Give this sheet to R.O.W. Judge at beginning of each flight.

Weather permitting we will mass launch at 9:30 AM after Photo Session.

SCALE JUDGING will be done after the fact. Rank Style - 1 to total number of entriew - example: If there are 10 entries the highest scale score will be 10 - etc...

Planes will be judged only after successful flights have been made. NO R.O.W. - NO SCORE.

FLIGHT JUDGING: Total of 2 best times R.O.W. Chrisma Points will be given on take-off pattern Olympic style. Judges decision final. Assisted take-offs DISQUALIFIED - NO SCORE.

IS THIS CONSTRUCTION LIGHT ENOUGH FOR YOU? WE USED TO CALL THEM "GHOST SHIPS". THIS ONE HAS A MOTOR STICK, AND VERY LITTLE STRUCTURE.

(13)

<インドアスケール>
モノクーペ90A制作記



谷田部　衛

ゴム動力スケール機のキット「モノクーペ90A」(カナダ　イージービルト　モデルズ　アンド　クラフツ社製) は屋外用なので、この図面をもとにインドア用スケール機を作ることにしました。

オリジナルと変えた点は、

1. ピーナッツスケールのサイズになるよう一回り大きくした。
2. 材料はすべて秘蔵のソフトバルサを使用。
3. 左翼を右翼より10mm伸ばす。
4. 左翼をネジリ上げ。
5. 垂直尾翼をトリカジにセット。
6. 水平尾翼面積を3割増し。
7. 垂直尾翼面積を2割増し。

実機と比べ尾翼が大きい点でスケール感を損ねていますが、安全のため目をつぶることにしました。また実機のカウリングにはコブコブが付いていてクラッシックないい感じなのですが、余りに面倒なので止めました。(うまく飛んだら付けるつもりです)

ゴムは直接胴体に入れずに、モータースティックを胴体に差し込む方式にしました。このほうが胴体の強度をかなり弱くできますし、ゴムを巻くときに胴体を破損する心配もありませんのでインドアスケールにはおすすめの方法です。

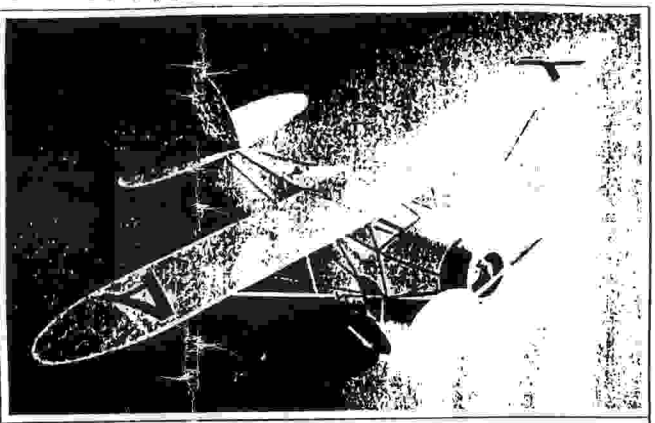
モノクーペは高翼で比較的ノーズが長く、胴体も太いので、上反角は実機と同じにしました。(ちょっと不安でしたが--)

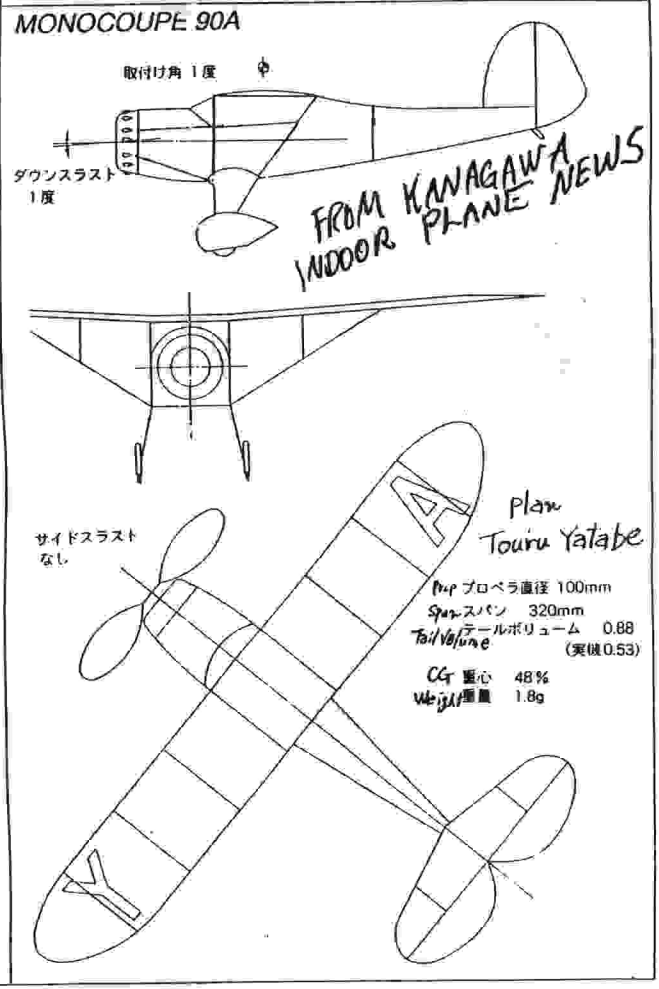
テスト飛行の結果
1989年12月3日 (日)
川崎サンライフ体育館

この日の最高記録は以下の通り
ゴム：住友ゴム (そのまま) 13cm
ループ 420回巻き
滞空時間：26秒
高度：6.5m

とてもきれいな飛行ぶりですが、飛行中にゴムが終ってしまい急降下に入り、記録が伸びません。次回はこの点を調整し、なんとか緊直に着陸し滑走させたいと思います。又、旋回半径が小さすぎるのでラダーを0度に直してやや良くなりました。左翼を伸ばす必要はなかったかもしれません。

初飛行としては大いに満足出来る結果で、この日は練習会ののちKIPCの忘年会があり、大変おいしくビール飲むことができました。







"Dr. Millmoss!"

D.O.M.E.D.U.S.T.E.R (14)

Plan Packet #5

Nuthin' But.... WACOS

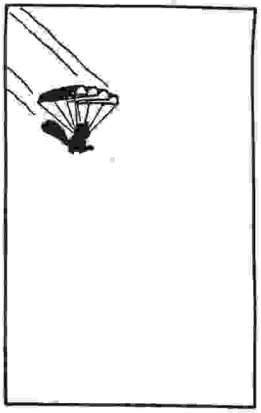
CONTENTS

This packet contains six 2-page original, detailed WACO Biplane Peanuts by Stan Fink. In addition to the plans, you'll find 3-views, color data, insignia, and research references for each aircraft.

$12.00 P. Pd.

1928 WACO TEN-OX5
1929 WACO ATO "TAPER WING"
1934 WACO UKC "PURE OIL"
1934 WACO MODEL D "MILITARY"
1936 WACO ZPF-6 "TEXACO"
1936 WACO ZQC-6







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"It's certainly refreshing to meet someone sixty years old who looks sixty years old."

WHAT'S ON IN FREE FLIGHT?

SUMMER FLYING ACES FLYING, TAMIAMI PARK, 112 AV + CORAL WAY. MAY 21, JUNE 25, JULY 16 7-10 AM

LOOK ALL OVER FOR US - WE MAY BE HARD TO FIND. WE'LL BE THERE BARRING RAIN OR HIGH WIND

May 13, MIAMI-DADE SOUTH COLLEGE. 9 to 3. CONFIRMED. Legal Eagle, etc. etc.
MAY 20, 21 TAMPA. MACDILL AFB. MIAMA STATE INDOOR FINAL MEET (#7) FAC M/L:Biplanes.
MAY 27,28 PALM BAY, Terry Rimert Memorial Meet and one design
MAY 31-June 4..JOHNSON CITY,TN..THE BIGGIE. Big Sat. nite MIAMA GRAND PRIX.
JUNE 17,18 PENSACOLA,FL. Festival of Five Flags.
JULY 1,2. PALM BAY. FLORIDA STATE FF CHAMPS. C/D Bill Staley
JULY 15,16 MOSCOW,IDAHO. AMA INDOOR NATS.. Kibble Dome
JULY 29, ISLAMORADA,KEYS. The Celebrated Millard Wells Flying Aces ROW Meet.
Three Kanones, FAC, Peanut, and JuMBO.
AUG 5,6 PALM BAY.FL. DIXIE NATS JIM JUHL,C/D
SEPT. 2,3. DISTRICT V CHAMPS PALM BAY FL.

MILE MARKER 87 - PLANTATION YACHT HARBOR - 7AM TO?

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THE HANGAR PILOT

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