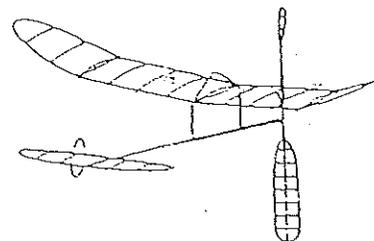


ISSUE # 136  
MID SUMMER  
2012

**INDOOR**  
NEWS and VIEWS



## FROM THE EDITOR'S DESK

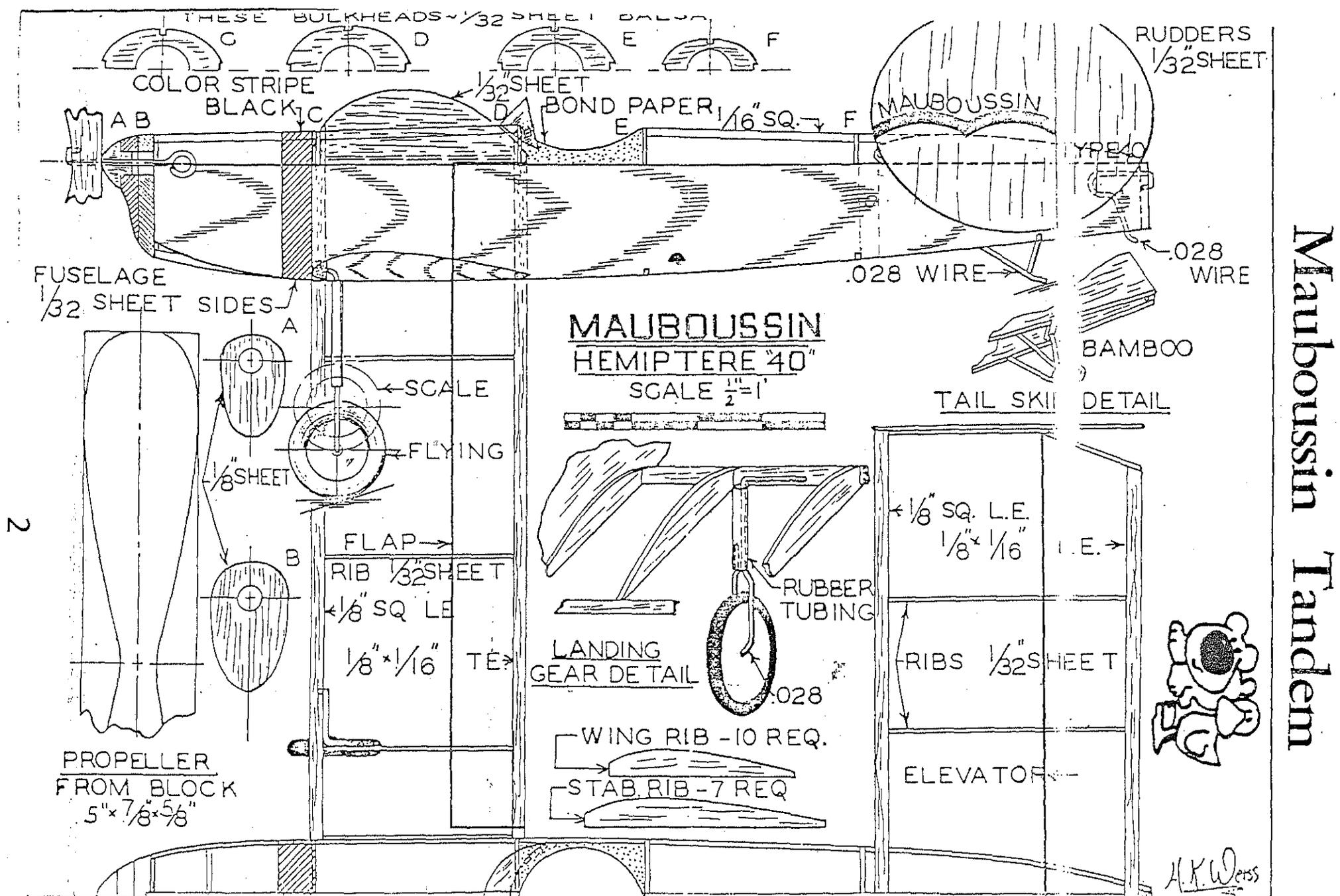
This issue we really have a bunch of things to discuss and hash over, some of it good, some of it not so good. First of all, I want to thank John Kagan and Al Mkitarian for getting us the results and comments from the Kibbie Dome contest. We also have some plans and gadgets you can make to assist you in quest for better times in flying your indoor models. We also have a Peanut scale model that is unique and kind of weird looking, but will start you down the path of building scale models. This might cause a lot of controversy from you scale guys. Not everyone wants to start with a Piper Cub or the likes. In keeping with my idea of putting a page from John Barker's pamphlet on building a Pennyplane, you may use the principle to building other types of indoor models. This was not in John's article, I added it for the Brainbusters use. It is an excellent tool and need not be an expensive and elaborate piece of equipment. Oh yes it is a pitch gauge. The next item by Larry Coslick is for the hard core indoor flyer. This item is a torque meter, where the torque is measured on the model and taken from propeller. Larry used it on EZ-B models, but I'm sure you can set it up for other types of indoor models, your choice. One piece of good news is that Shorty's Basement is back in business. Check with the ad elsewhere in this issue of INAV. There is also in this issue a good picture of Akihiro Danjo's A-6 model and a blurb about the models Center of Gravity. Now for all you F1D flyers we have one by Tim Hayward-Brown. Now hear this! You will not see this in the picture of Tim's V/P prop as I have it in Black and White. So what? It appears to me that Tim and others are now putting blue dye in the glue so they can see where the glue is going and it is obvious that Tim used the blue glue to bond the boron on the fuselage/motor stick. It shows up as black in picture we have. Blue Glue, you have started a fad Tim.

Now we come to the BAD NEWS. With the August/September issue I will end Indoor News and Views. With the Internet and other electronic devices our news is two months old by the time you get it. We have lost half our Subscribers and more than half of our overseas subscribers. Now, we have money in the bank. Anyone that wants any money left on his subscription contact me at the address on the newsletter or at my E-mail address and we will fulfill your wishes. If you do not contact me by the 15<sup>th</sup> of October, I will donate the money to the National Free Flight Society with the stipulation that it be used on Indoor Free Flight projects. In the last issue of INAV I will publish how much money will go to NFFS. I do want to thank all the past Editors for all their hard work. Believe me it was a hard decision, but the time has come. Please feel free to send comments to me at my addresses in this newsletter.

Back to some more good news. To you modelers that want to build the Mauboussin Tandem, by all means check the notes at the bottom of the page. Make these changes, some or all, none if you feel that way. I have seen the model fly with almost no changes. For the more experience models go for all of them and even add your own changes. This is what modeling is all about. I plan to put some 1/64<sup>th</sup> plywood on the rear of the leading edge to beef up that area by the landing gear. Remember what Tim Hayward-Brown says "Glue, or too much of it is our biggest enemy". Thanks Tim, that fit in well.

Remember August/ September will be your last issue. Send me your comments, good or bad

Keep the faith, Abram



Another goodie from TONY PETER's larder. This one could be a good flier. Obviously, it has to be lightened...especially the tail. Fins should be outline, not sheet; body and wing-tips should be built up, not sheet. Who needs 1/8 square leading edges?...or 1/8 x 1/16 trailing edges?

Move the rear hook forward...use a peg. I think it pragmatic to widen the wing chord a bit add 1/4" to the rear. Be sure to make entire nose block removable...not just the bearing button. Wing should be one-piece through fuselage; not panels butted to body. Beef up LG joint.

Mauboussin Tandem

A.K. Weiss

## Re: Kibbie Dome

Fri Jul 13, 2012 8:42 am (PDT) . Posted by:

"Yuan Kang Lee" ykieetx

A few results deserve extra mention. Moscow, Idaho is situated at an altitude of 2600 ft. The altitude results in serious performance loss compared to sea level. As an example, my EZB flies with an average RPM of 64 at Johnson City but turns a fast 69 RPM at the Kibbie.

John Sayre's HLG 2 flight total of 180s (90,90). I believe these are site records. I saw a couple of John's practice flights, and his launches were very high, about 120 ft. In 2008, the big guns of HLG were at the Kibbie for the "Battle Near Seattle", and the winning time was 158 by Stan Buddenbohm.

Emil Schutzel's 13:11 Ministick flight.

Royce Chung, who is a junior flier, winning Limited Pennyplane with a time of 13:42.

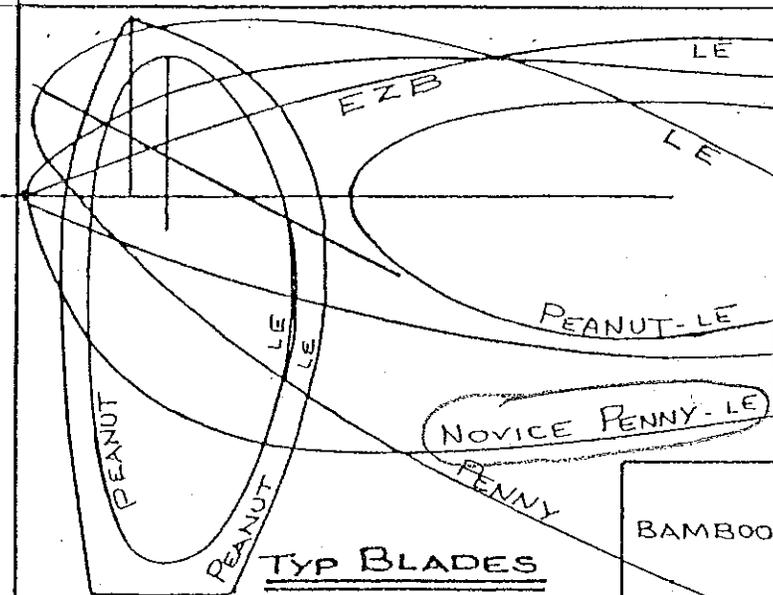
Larry Coslick's 29:12 EZB flight. There has only been a handful of 29+ minute flights at the Kibbie.

Jake Palmer's 1/2 A winning time 12:37. This is a site record.

Tim Chang's 35:02 in Intermediate Stick. Tim is an incredibly good flier. I believe he holds the Kibbie site record in F1D. Look out for him in the F1D Team Selection contest in 2013.

Larry Coslick's 34:55 in Intermediate Stick.

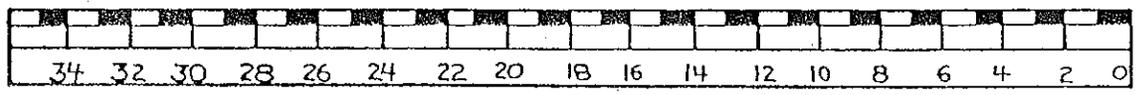
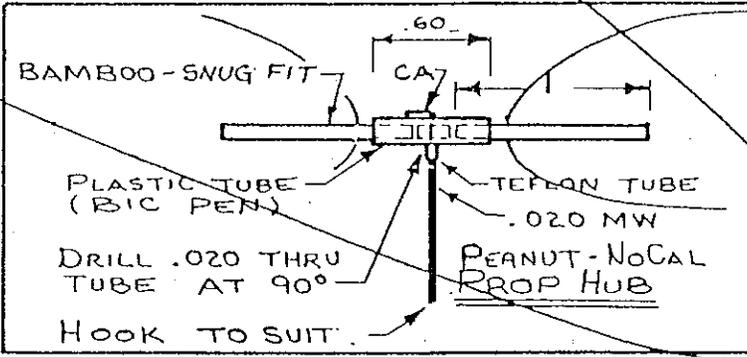
- HLG: John Sayre 180 (90,90) Ed Berray 111	- Intermediate Stick Tim Chang 35:02 Larry Coslick 34:55	- EZB Larry Coslick 29:12 Yuan Kang Lee 28:24 Kurt Schuler 24:33
- Ministick: Emil Schutzi 13:11 Royce Chung 11:22	- 35 cm Larry Coslick Ed Berray	- F1D Jake Palmer 52:31 Leo P. 52:04 Tim Chang
- Limited Pennyplane Royce Chung 13:42 Michael Altig Ed Berray 13:26	- Pennyplane John Sayre Michael Altig	- A6 Emil Schutzel 9:02 Michael Altig 8:25 Ed Berray 7:20
- F1L Steve Brown 40:27 Leo Pilachowski 38:37	- AROG Larry Coslick 18:40 Ed Berray 17:24 Wally Miller 16:05	- 1/2A Jake Palmer 12:37 Emil Schutzel 11:33 Wally Miller 10:58
- 0.6g Larry Coslick EZB Larry Coslick 24:11 Wally Miller 23:00 Jake Palmer 21:51		



BLADES - 1/32 Q. GRAIN 5-6 lb Balsa or 2 mm Rohacell Foam. TAPER & SAND TO Wgt. & SHAPE. WARP ON PITCH BLOCK OR BOTTLE (220°F, 20-30 MIN). GLUE (CA) TO BAMBOO PEGS. SET PITCH WITH PITCH GAGE.

TYP BLADES

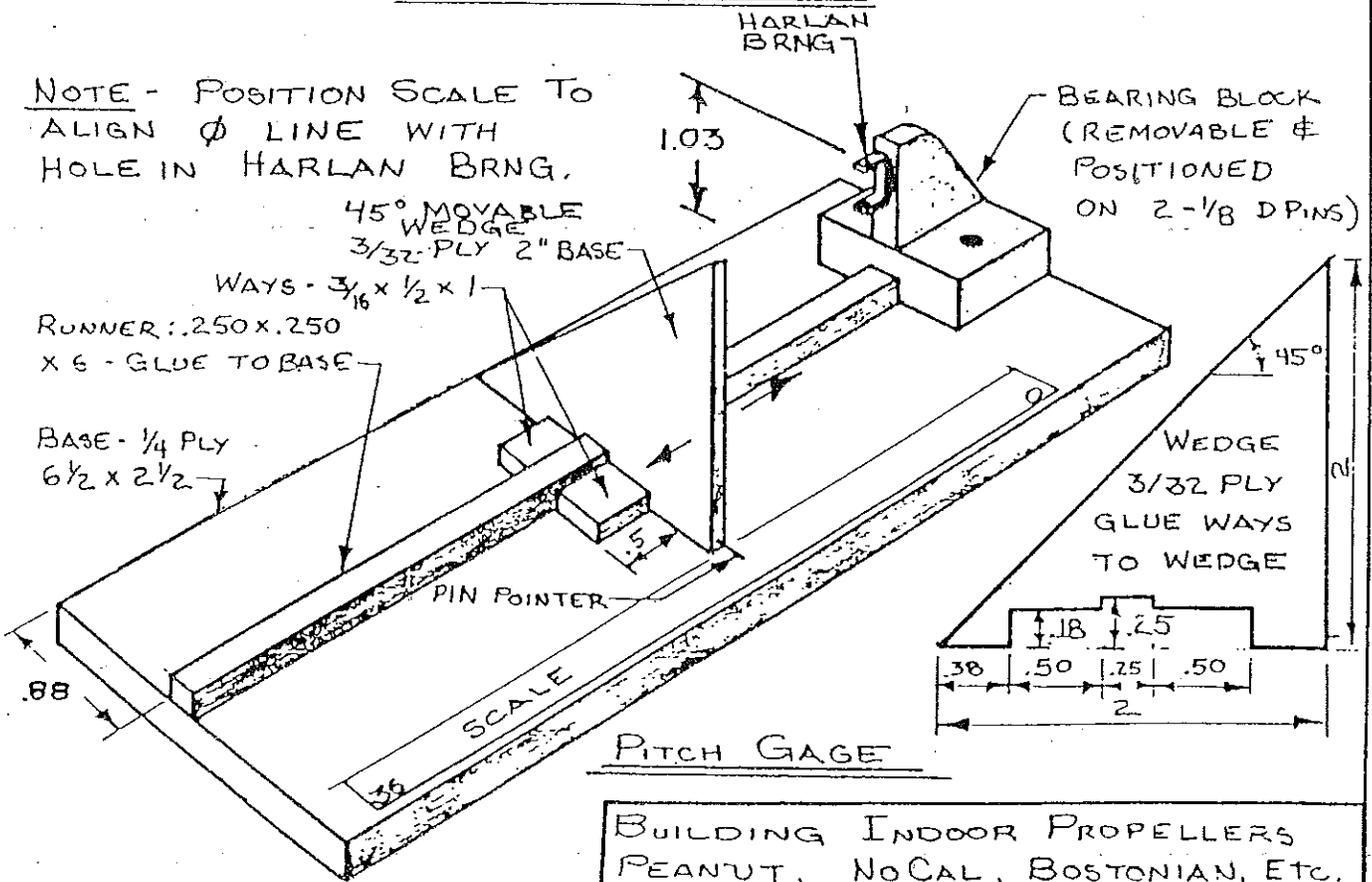
TYPE	Wgt (gm)	DIA.	PITCH
PEANUT	.4-1.0	6-7.5	10-15
N P	.65-.85	12	20-28
P	.75-.95	12-17.5	22-30
EZB	.14-.22	12-16	22-32



SCALE (FULL SCALE)

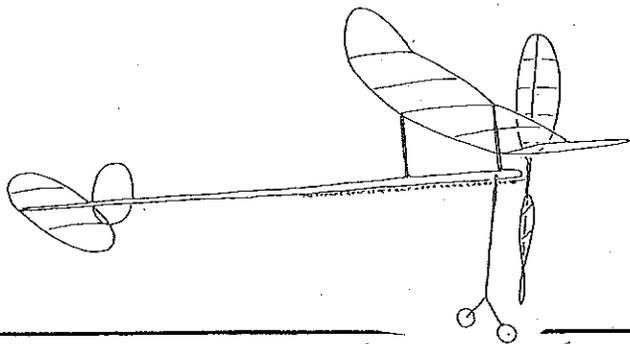
$P = 2\pi r \tan \alpha$

NOTE - POSITION SCALE TO ALIGN  $\phi$  LINE WITH HOLE IN HARLAN BRNG.



PITCH GAGE

BUILDING INDOOR PROPELLERS  
 PEANUT, NO CAL, BOSTONIAN, ETC.  
 LESTER W GARBER 2324 E 5th ST.  
 JAN 90 *LWG* DULUTH, MN 55812



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Quality kits  
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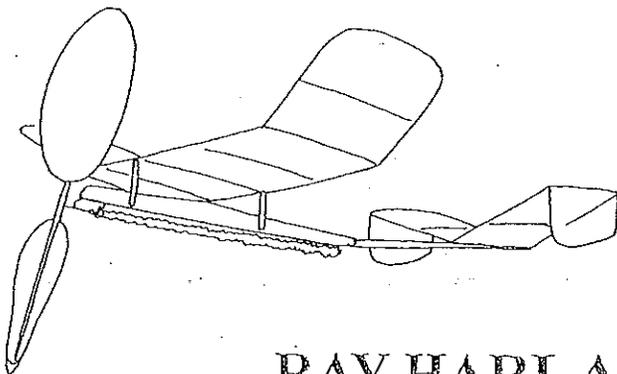
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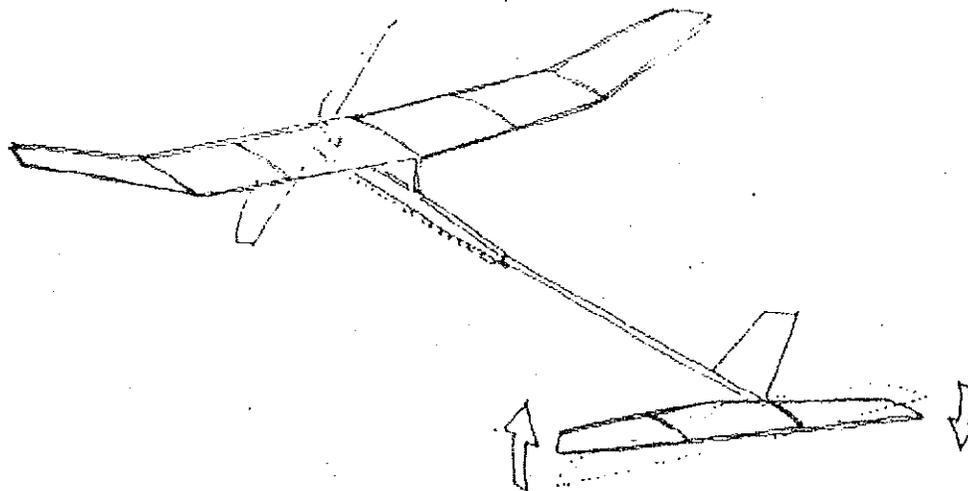
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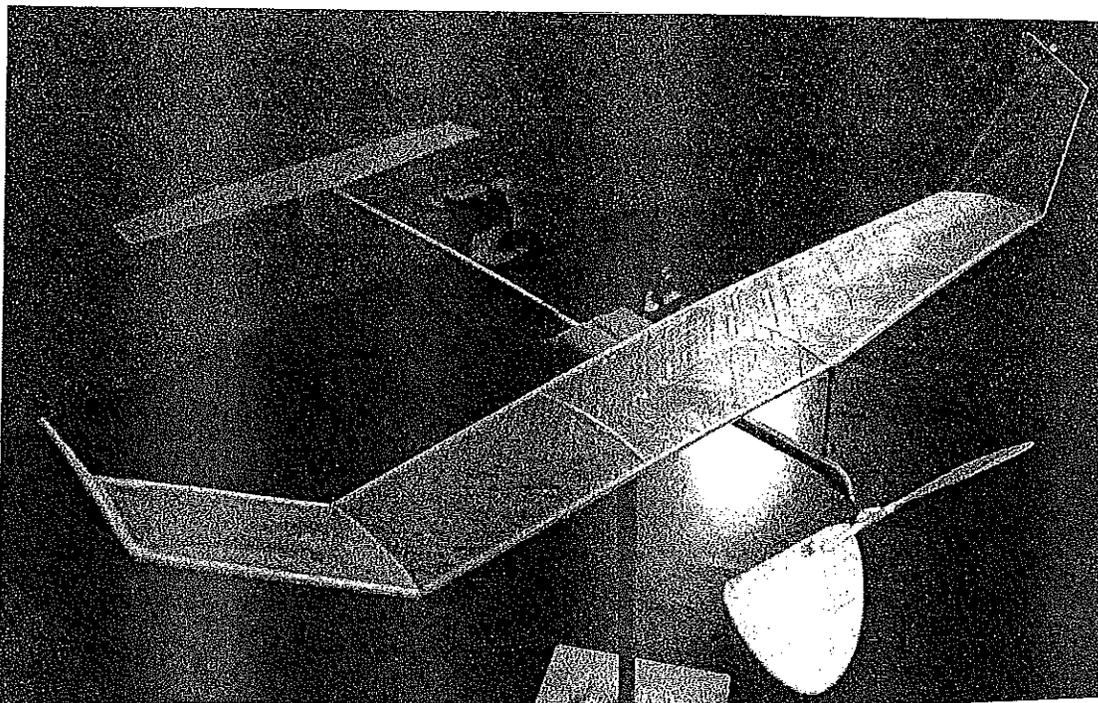
**LOOK ME UP**

**Automatic stab tilt. If your model won't turn left under a full launch torque, try this**  
Drawing by Steve Gardner



I stumbled on this automatic stab tilt phenomena by accident after completing a small 15 square inch model called 1/2A stick, designed by Wally Miller, the originator of the EZ-B. VP props are legal on this model. The model would fly fine on a fixed pitch prop, but it didn't like the high pitch of my 8" VP prop. I used a lot of off set in the wing along with wash in and it would start it's climb OK and then crab off to the right and stall. Nothing seemed to work to correct this problem, including lowering the pitch. I decided to off set the stab and did it in a big way. 70% of the stab on the inboard side. The offset stab looked weird and drooped enough to cause quite a bit of negative stab tilt at rest.

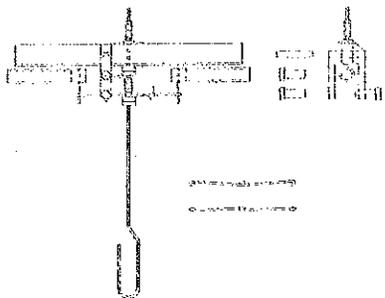
The model is small enough to fly in a large room and when I flew it with the same torque and high pitch that caused the stall in the first place, the model continued it's climb without any hint of a stall. The boom and stab twist under the flight load to give a left turn. I tried the stab offset one of my F1L's that didn't want to turn with a lunch torque over .2 in. oz. and it solved that problem. I didn't have to change the boom on either model and tweaking the boom can be used to change the circle. L. Coslick 2010



**NADESHIKO 11, A-6 BY AKIHIRO DANJO**

AKIHIRO SAYS, CENTER OF GRAVITY 23 MM AFT OF WING TRAILING EDGE.  
C/G WILL MOVE FORWARD WITH RUBBER MOTOR INSTALLED.

The variable pitch prop hub is a combination of ideas from various builders. I couldn't get enough movement from the plastic/tissue hinge style set-up of the Banks/Brown designs - so I incorporated rolled tubes on a half-round hub, more like those I've seen from a few of the European flyers. The hinges are Kevlar thread. The adjuster brackets are made from basswood, pinned through the hub with a hard balsa dowel, and then wrapped a couple of times with single Kevlar filaments. I'm so sick of these breaking off just when I think I have it set up right!



VP Mechanism (32mm wide)

The motors used were about .058 width wound to around 0.6oz/in and then backed off to half that for launch. The test flight of 16:45 was made on Sep 2000 Tan II (thanks Peter Twiss!) and the 18:44 on Apr 2010 SuperSport. I used both later in the day but as conditions deteriorated the early times were hard to match.

#### Blue Streak Weight and Component Breakdown

##### Component Weights

VP Prop	0.280
Wing	0.351
Stick & Posts	0.356
Boom & Fin	0.168
Stab	0.110
TOTAL:	1.265

##### Fuselage

Stick:	.0125in (4.4#) on 1/4in form (4 borons)
Stick ext:	.010in (4.5#)
Boom:	.009in (4.5#) 1/4in x 1/8in diam

##### Wing

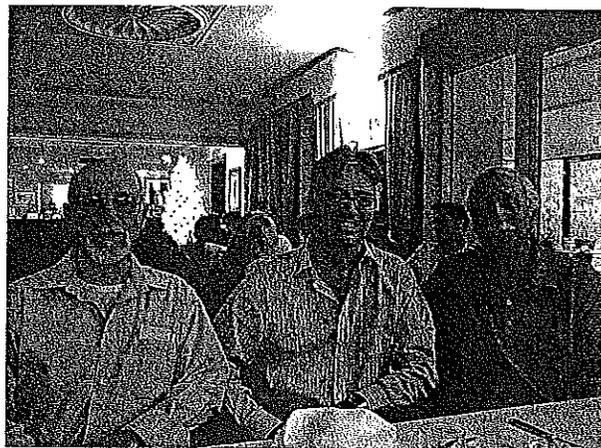
Spars:	.036 x .050 > .036 x .100 > .036 x .050 (5.5#)
Tips:	.027 x .050 > .027 x .030 > .027 x .050 (5#)

##### Stab

Outline:	.027 x .055 > .027 x .030 > .027 x .055 (5#)
Ribs:	.024 x .030 > .024 x .045 > .024 x .030 (4#)

##### Prop

Outline:	.022 x .022 (5.5#)
Ribs:	.022 x .022 (4.5#)
Spar:	.075 x .080 > .025 x .025 (5#)

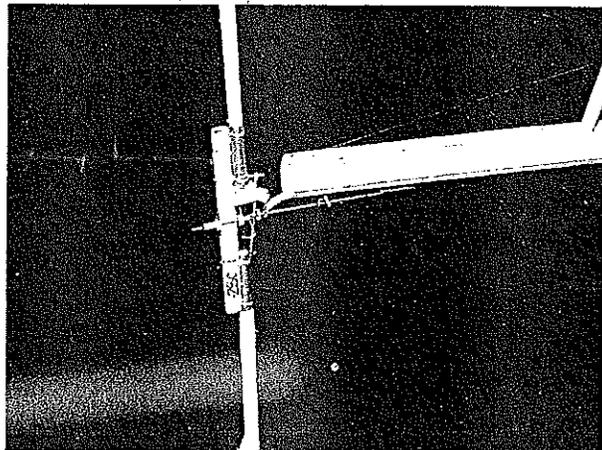


Jack Metcalf, Tim Hayward-Brown and Max Newcombe

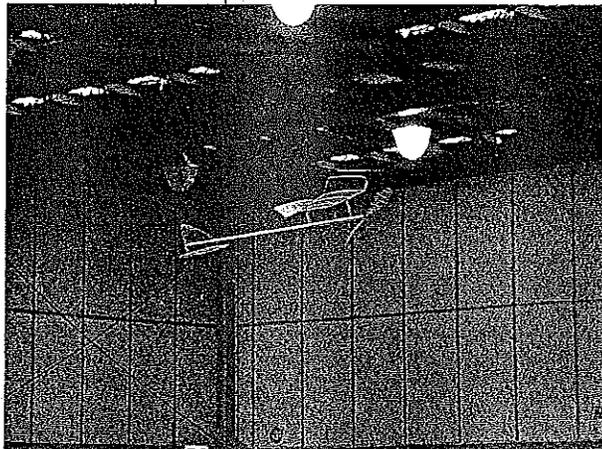
#### Blue Streak F1D - Tim Hayward-Brown

*Best time: 18:44 (Melbourne 18 Dec 2011)*

Glue is the enemy of indoor models - or too much of it anyway. After making a number of overweight motorsticks, one day I added some blue dye to the Ambroid and acetone to see how much was being used and exactly where it was going. The result on the sticks, especially after the four borons had been added, left long blue streaks along the sides. As it happens, my Dad worked on the rocket projects at Woomera back in the 60's. So the name 'Blue Streak' came to mind readily. Mine travel a bit slower it has to be said.

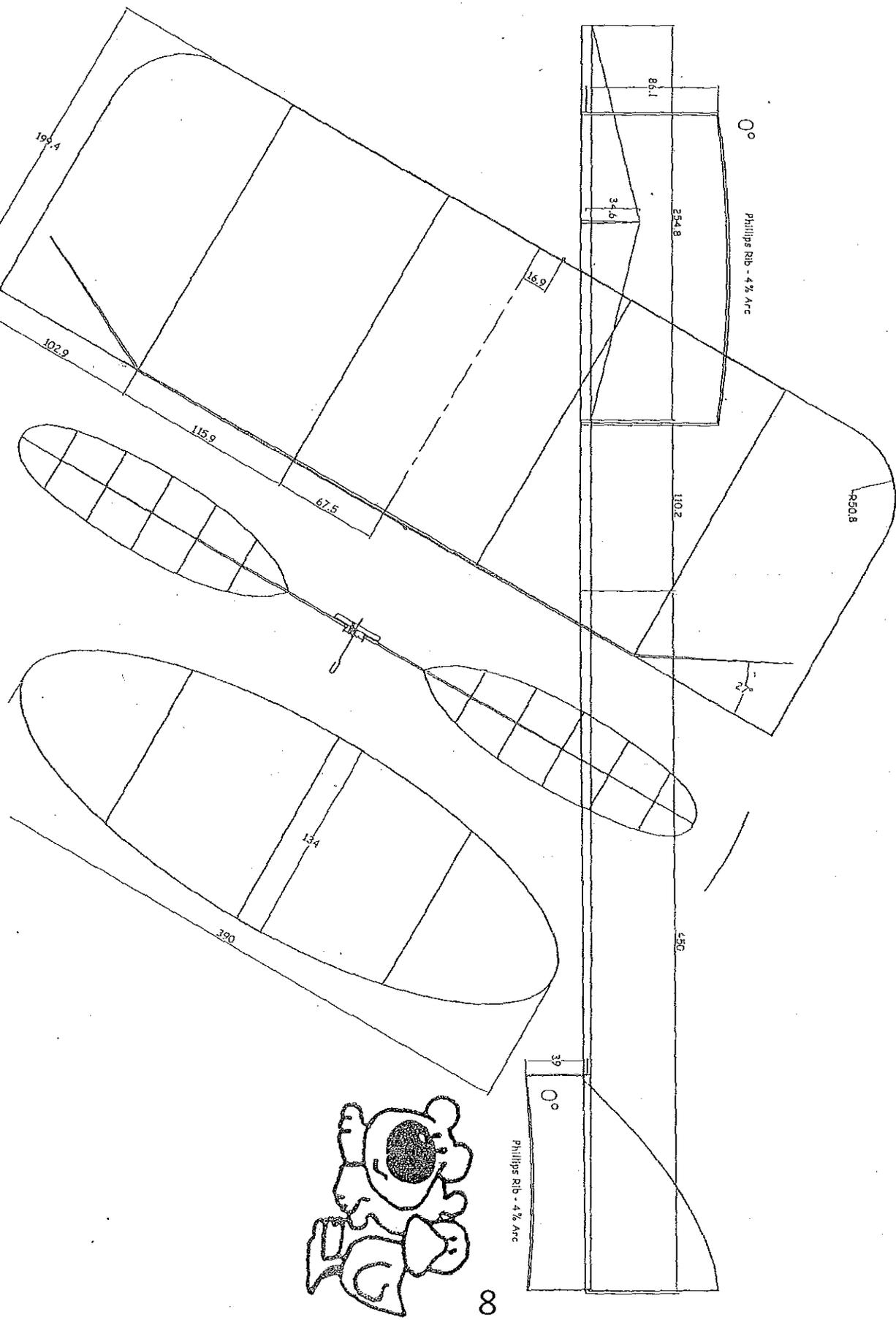


The three models I brought to Melbourne were all of similar design. The prop shape is borrowed from Ivan Treger and the stab shape from John Kagan. The wing is set a bit further back than most flyers. There is no boron on the wing or tail boom - but four around the motorstick. The webs at the prop bearing and rear hook extend well back. This has helped prevent the motorstick collapse experienced in earlier versions.

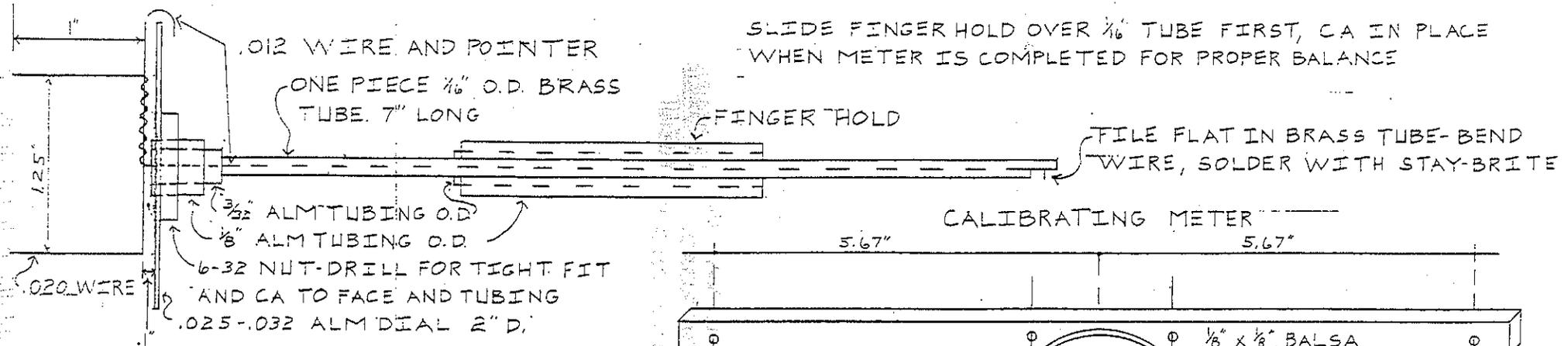


"Bluestreak" in Flight

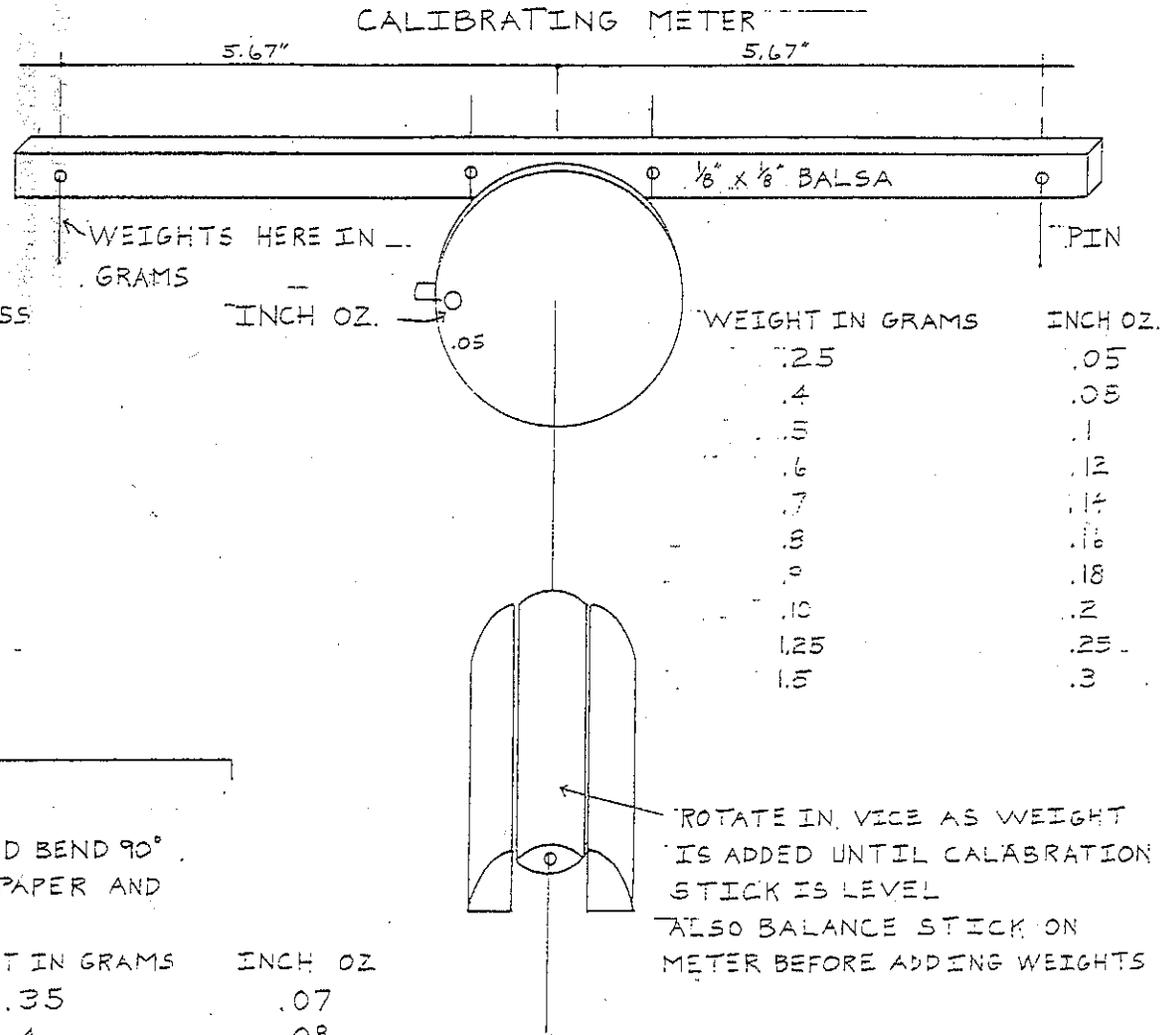
# THE 'BLUE STREAK', F1D BY TIM HAYWARD-BROWN



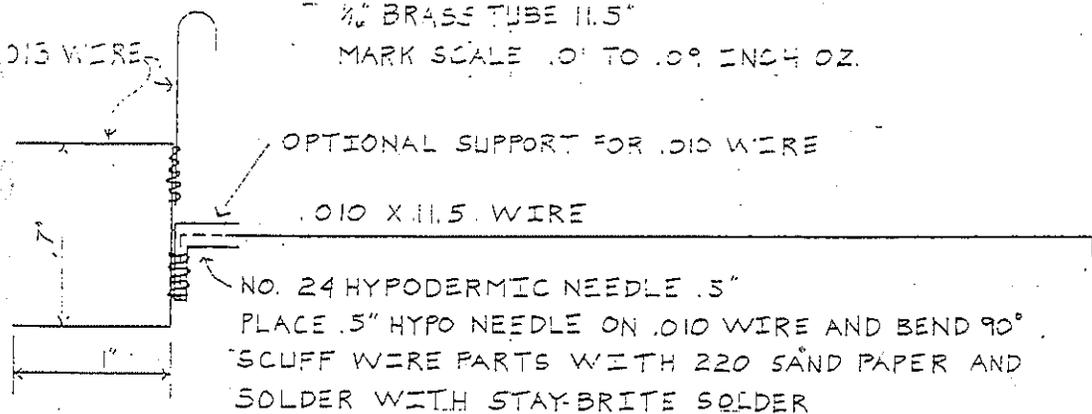
# EZB HAND HELD TORQUE METER



WRAP AND SOLDER WITH ONE STRAND OF COPPER WIRE FROM OLD EXTENSION CORD TORSION WIRE CAN BE ANY LENGTH AND THICKNESS THE LONGER AND THINNER THE WIRE THE MORE SENSITIVE THE METER



6 MINI-STICK  
DIAL 1.4"  
1/8" BRASS TUBE 11.5"  
MARK SCALE .01 TO .09 INCH OZ.



WEIGHT IN GRAMS	INCH OZ	WEIGHT IN GRAMS	INCH OZ
.05	.01	.35	.07
.1	.02	.4	.08
.15	.03	.45	.09
.2	.04		
.25	.05		
.3	.06		

ROTATE IN VICE AS WEIGHT IS ADDED UNTIL CALABRATION STICK IS LEVEL  
ALSO BALANCE STICK ON METER BEFORE ADDING WEIGHTS

DRAWINGS NOT TO SCALE

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AMA/NFFS OUTDOOR FREE FLIGHT NATIONALS 6-10 AUGUST



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FIRST CLASS

