# THE HANGAR PILOT

ONE AND ONLY!

THE MIAMI INDOOR AIRCRAFT MODEL MEET

MIAMI

ISSUE 93
APRIL 1984

INDOOR WEEK IS GO-

MIAMA SALUTES BOB ANDREWS





# THE HANGAR PILOT

Is published 8 (or 9) times a season for a bunch of middle aged guys who refuse to grow up. MIAMA (Miami Indoor Aircraft Model Association,) AMA Club 986, is the only active all indoor free flight club in AMA. Our Mottos: "It must be fun.", and "Indoor isn't for everyone." For $10.00 a year you will receive all copies. We solicit your contributions since we are always running out of material. Letters, plans, 3-views, articles, gripes, and Money to: Dr. John Martin Pres./Editor. 2180 Tigertail Ave. Miami, Fla. 33133 USA Phone: 305-858-6363 We want to hear from you!!! Send material!!!

## COVER STORY




Unlike TIME magazine, the HANGAR PILOT doesn't honor a man a year. In twelve years we have honored SAM PENROD, retired ground crew chief of Miami's Goodyear Blimp operation (Now living in Leesburg), and DAVE LINSTRUM, columnist for Model Airplane News.

Now we salute BOB ANDREWS, raconteur, publisher of Hangar Pilot, Timer, Club Photographer, sometime modeller, and world's leading expert on Deperdussin monoplanes, and all round helpful club member. When Bob isn't at a MIAMA meet, the void is noticeable. Hip, hip, hooraaay!

# YES, VIRGINIA THERE WILL BE AN INDOOR WEEK! DETAILS LATER

RICK DOIG IS ARRANGEING IT IN WARREN, MICH.
MICHIGAN STATE FAIR COLLISEUM (66 FT.)
JUNE 18TH TO 22ND
NFFS's, US INDOOR CHAMPS, NIMAS' NINART,
& 24 HOUR WORLD PEANUT GRAN PRIX

# NEXT MEET (#6) APRIL 29 MIAMI DADE SOUTH COLLEGE

## WORLD PISTACHIO INTER-GNATS - MAY 13 - SAME PLACE

# MEET 5 M-D SOUTH 3/18/84

Like a bicyclist breaking out of the bunched pack of the Tour de France, Walt Everson came charging out of MIAMA's pack of those in contention for State Champ at meet 5. With 2 meets to go Walt scored an impressive 25 points. He won Kit/Plan and Peanut with an ordinary Found that got only average scale points, but flew well over a minute maxes. His Class A ROG was very impressive as it banged around the rafters for 5 1/2 min. until it finally got stuck trying to use up the 2200 turns Walt had cranked into it. Very gutsy flight.

Mike Arak (Who compiled the point list), Doc Martin, Millard Wells, have all got a chance for overall, but Walt will be tough. The scoring for class trophies are all still wide open, and Junior has the usual lack of interest. Two meets to go, Pilots, and the one scheduled at Lakeland May 19 & 20 is very dubious. Site may be full of fertil.

There are currently five (5!) sites being investigated by Ellis Oglesby, Phil Bayley, Doc, and Bill Criss. Nothing firm to report.

In addition to meet results we list the complete point standings for the 1983/84 season with 2 meets to go. We remind you that we count the points from your best 4 meets (out of seven). Trophies (Nice ones!) for 1st & 2nd in class, and 1st & 2nd overall.

This is the 2nd meet using the new Jim Miller AMA peanut rules and Walt Everson likes them. I'm sure we are the first club to use 'em. Note how close the scores...in peanut and ALL the events.....FUN!!

| | | Av. of 2 best flights: | |
|---|---|---|---|
| PEANUT EVENT: | 1. Walt Everson (Found 70.4 Stat) | 65.5. Total: | 135.9 |
| | 2.John Martin(Ansaldo 90.4) | 40.6 | 131.0 |
| | 3.Dave Kiefer(Sop. Tripe 98.0) | 31.0 | 129.0 |
| | 4.Mike Arak (Bleriot 94.6) | 28.5 | 123.1 |
| | 5.Carl Hedley(CNA-PM-1) (77.6) | 38.6 | 116.2 |
| | 6.Millard Wells(Wee Bee 49.2) | 49.2 Max | 98.4 |
| | 7.Dick Kelso (Curt. Falcon 78.5) | 15.0 | 93.5 |

| | | | Plus two best flights: | |
|---|---|---|---|---|
| KIT/PLAN: | 1.Walt Everson (Found 80) | 58.9 | 60.5 | 199.4 |
| | 2.Mike Arak (Curtiss Robin 94) | 48.0 | 52.4 | 194.4 |
| | 4. John Martin( Curt. Robin 68) | 33.2 | 54.0 | 155.2 |
| | 3.Millard Wells (Alco 86.0) | 49.2 | 49.2 | 184.4 |
| | 5.Dave Kiefer (Waco E,85) | 33.8 | 32 | 150.8 |
| | 6.Dick Kelso(Waco E 85) | 28.0 | 27.3 | 140.3 |

## MEET 5 RESULTS (CONT.)

EASY B:
1. Dave Kiefer 5:49
2. Mike Arak 5:28.5
3. Jim Stewart 5:00
4. W. Everson 4:33
5. Millard Wells 3:45.7
6. Ed Shaw :58

Class A ROG:
1. Walt Everson 5:23
2. Mike Arak 5:17.2
3. John Martin 3:35
4. Millard Wells 2:29
5. Dave Kiefer 2:13

Manhattan/Bostonian:

| | | |
|---|---|---|
| 1. Walt Everson | 3:46 | 226 |
| 2. Millard Wells | | 212 |
| 3. John Martin Bost. Komet | | 196 |
| 4. Mike Arak | | 115 |
| X. M. Wells Bost. Cub | | 150 |

GLIDER: 1. Don Bal (31.1) (30.5)
Junior: 1. David Bal (22.5) (17.4)
2. Steven Bal (16.1) (13.2)

PENNY PLANE: 1. Carl Hedley 3:37

# MIAMA ANNUAL POINTS:

| OVERALL POINT LEADERS: | Points earned on meets: 1. | 2. | 3. | 4. | 5. | 6. | 7. | Best 4 meet total to meet 5 |
|---|---|---|---|---|---|---|---|---|
| 1. Walt Everson | 5 | 3 | 12 | 19 | 25 | | | 61 |
| 2. John Martin | 8 | 14 | 16 | 12 | 13 | | | 55 |
| 3. Millard Wells | 6 | 11 | 15 | 15 | 13 | | | 54 |
| 4. Mike Arak | 1 | 10 | - | 14 | 19 | | | 44 |
| 5. Dave Kiefer | 14 | - | - | 10 | 14 | | | 38 |
| 6. Dick Obarski | - | 12 | 4 | - | - | | | 16 |
| 7. Don Bal | 3 | 4 | 8 | 1 | 1 | | | 16 |
| 8. Jim Stewart | 5 | 3 | 4 | - | 4 | | | 16 |
| 9. Dave Linstrum | 7 | 6 | - | - | - | | | 13 |
| 10. Dean McGinnes | - | 6 | 8 | - | - | | | 14 |

35 INDOOR FLYERS SO FAR THIS YEAR - NICE GOING, FLORIDA!

OTHER POINT TOTALS:

| | | | | | |
|---|---|---|---|---|---|
| 11. Criss 11 | | 18. Smead 6 (Bill) | | 26. A. Campbell (Jr) | 3 |
| 12. David Bal (Jr.) 11 | | 19. Rimert 5 | | 27. S. Theiss (Jr) | 3 |
| 13. McBride 8 | | 20. Steve Bal (Jr) 5 | | 28. L. Campbell | 2 |
| 14. Oglesby 8 | | 21. J. Avera (jr) 5 | | 29. Sue Arak (Jr) | 1 |
| 15. Redding 7 | | 22. J. Combee 4 | | 30. Sheppard | 1 |
| 16. Erwin 7 | | 23. Bayly 4 | | Left off list: | |
| 17. Mock 6 | | 24. Oliver 3 | | Hedley | 6 |
| 18. Sharpton 6 | | 25. Midkiff 3 | | Szymula | 4 |
| | | | | Shaw | 3 |
| | | | | Kelso | 3 |
| | | | | JIM SMEAD | 7 |

# CLASS LEADERS:

| PEANUT SCALE: | 1. | 2. | 3. | 4. | 5. | 6. | 7. |
|---|---|---|---|---|---|---|---|
| Dave Kiefer | 5 | - | - | 4 | 5 | | |
| John Martin | 3 | 7 | 7 | 5 | 6 | | |
| Millard Wells | 2 | 5 | 5 | 6 | 2 | | |
| Walt Everson | 1 | - | 6 | 7 | 7 | | |
| Carl Hedley | - | - | - | 3 | 3 | | |

Eleven others have earned points in the peanut scale event.

Continued on next page.

| KIT/PLAN SCALE: | 1. | 2. | 3. | 4. | 5. | 6. | 7. |
|---|---|---|---|---|---|---|---|
| John Martin | 3 | 6 | 8 | 6 | 3 | | |
| Dave Kiefer | 2 | - | - | 2 | 2 | | |
| Millard Wells | 1 | - | 7 | 5 | 4 | | |
| Walt Everson | - | - | - | 4 | 6 | | |
| Mike Arak | - | 1 | - | 3 | 5 | | |
| Dean McGinnes | - | 4 | 6 | - | - | | |

8 others have earned points in Kit/Plan scale.

Manhattan/Bostonian (In Manhattan we count the best single flight, In Bostonian, the best two flights multiplied by the charisma factor.)

| | | | | | |
|---|---|---|---|---|---|
| Walt Everson | 2 | - | 4 | 4 | 4 |
| Millard Wells | 1 | 2 | 2 | 3 | 3 |
| Mike Arak | - | 1 | - | 2 | 1 |
| John Martin | - | - | 1 | 1 | 2 |
| Ellis Oglesby | - | 4 | 3 | - | - |

Four others have points in Manhattan/Bostonian

CLASS A ROG:

| | | | | | |
|---|---|---|---|---|---|
| Walt Everson | 1 | 3 | 3 | 3 | 5 |
| Mike Arak | - | 2 | - | 4 | 4 |
| Dave Kiefer | 4 | - | - | 2 | 1 |
| John Martin | 2 | 1 | - | - | 3 |

6 other scores in A ROG

EASY B:

| | | | | | |
|---|---|---|---|---|---|
| Jim Stewart | 5 | 3 | 3 | - | 3 |
| Dave Linstrum | 4 | 6 | - | - | - |
| Dick Obarski | - | 8 | 4 | - | - |
| Mike Arak | - | 5 | - | 3 | 4 |
| Millard Wells | 2 | 4 | - | - | - |

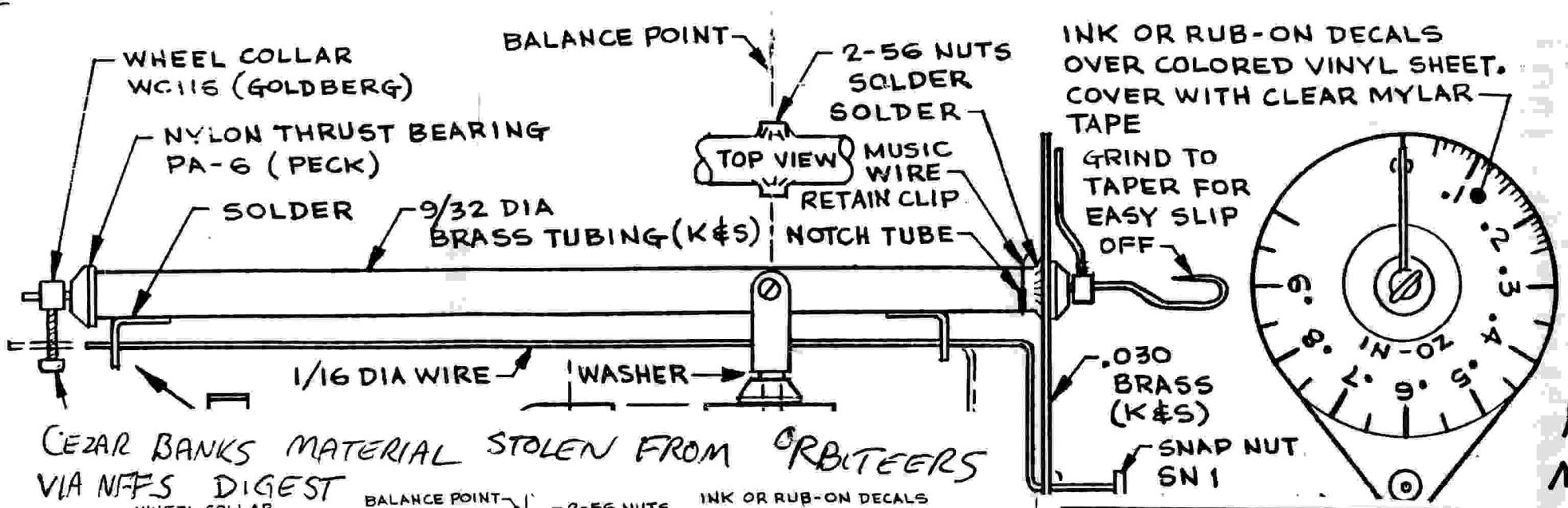
8 other contestants in EZB

GLIDER: Don Bal has 16 points in his best four meets and has glider all sewed up. His son David is leading Jr. HLG with 11 points for 4 meets. 4 others in Jr. HLG, and 10 more in Open HLG.

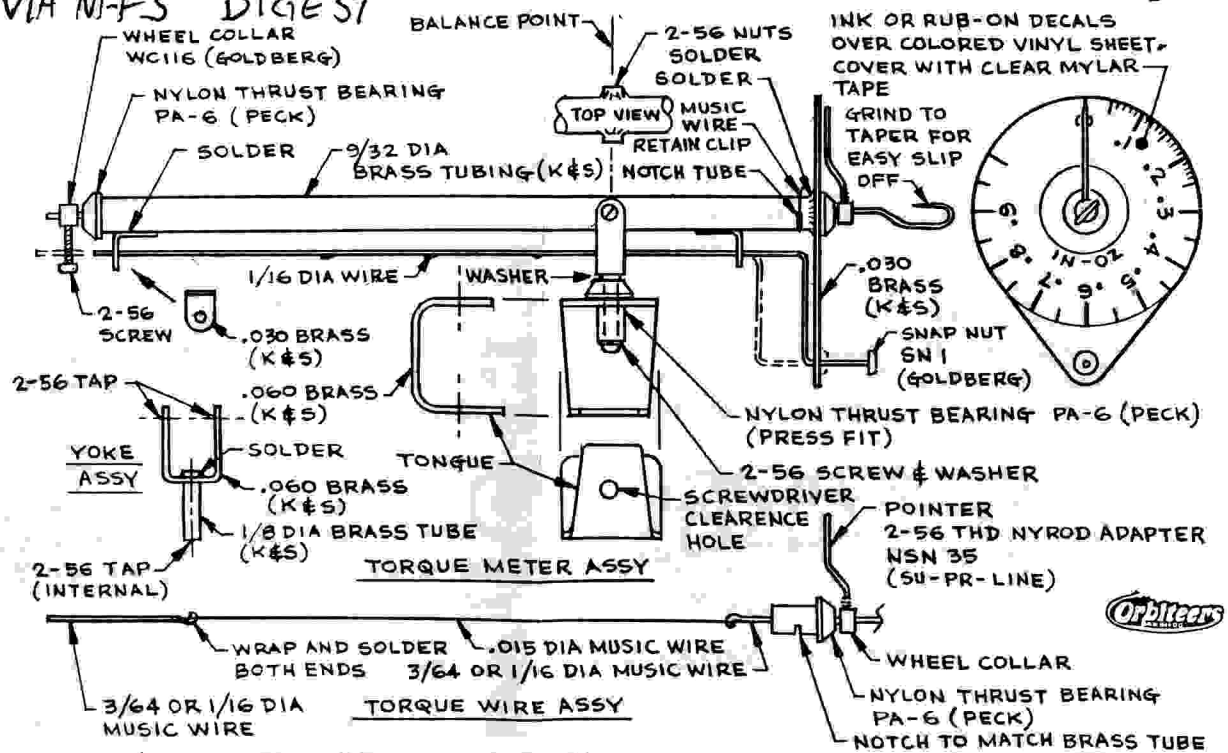
**THANKS, ED** - ED SHAW was host to a group of MIAMA clubsters including Stan Hunt, Jim Brian, Reg and Jim Angel of England, friends of Butch Hadland. Some vintage MIAMA films were viewed.

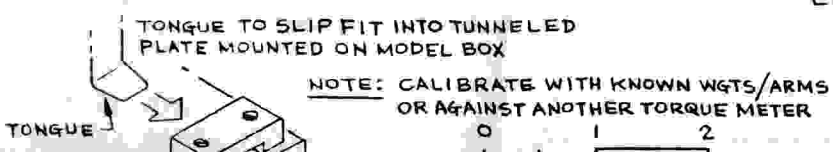
**NEW RUBBER SOURCE?** Dick Obarski tested some strange rubber Doc Martin found in Bungee Cord . It is half as thick as the usual stuff (.020) and .012 wide. It behaves about like .055 FAI but takes lots of winds. It is so thin I don't know if it can be stripped. More on this later.

**GARY MEYERS:** Mike Arak reports the sad and tragic death of Gary Meyers in March 1984. Gary was MIAMA's first State indoor champion in 1973, and repeated as champ in 1974. He had moved to Cal.



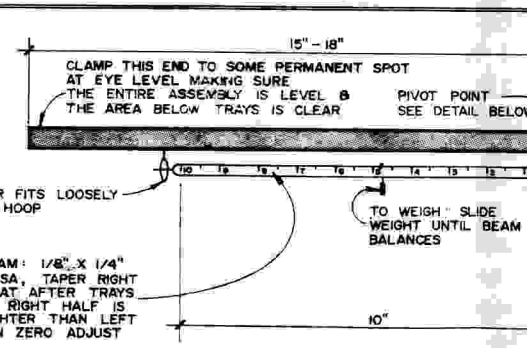

CEZAR BANKS MATERIAL STOLEN FROM ORBITEERS VIA NFFS DIGEST

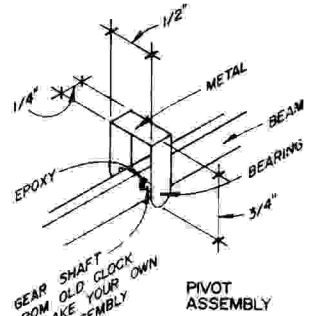


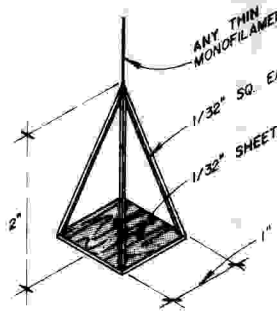




NOTE: CALIBRATE WITH KNOWN WGTS/ARMS OR AGAINST ANOTHER TORQUE METER

| INDOOR TORQUE METER FROM HOBBY STORE MATERIALS |
|---|
| DESIGN BY: CEZAR BANKS |
| DRAWN BY: NAT ANTONIOLI |



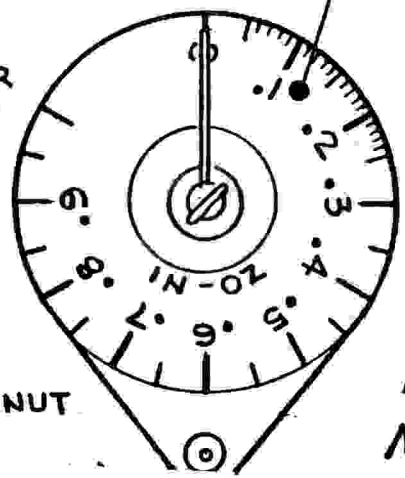

WEIGHING TRAY

INK OR RUB-ON DECALS OVER COLORED VINYL SHEET. COVER WITH CLEAR MYLAR TAPE

GRIND TO TAPER FOR EASY SLIP OFF

.030 BRASS (K&S)

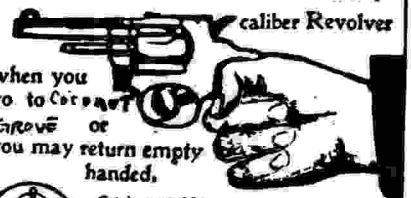
SNAP NUT SN 1





MIAMI NECESSITIES

Take a SMITH & WESSON heavy caliber Revolver



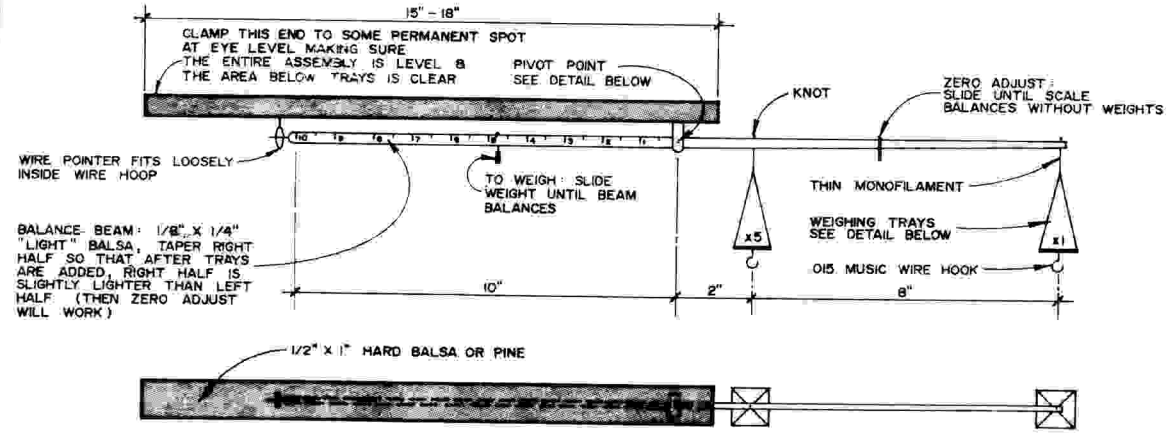
when you go to Coconut Grove or you may return empty handed.

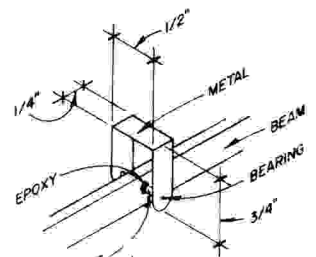
Catalogues of desirable weapons for heavy use mailed on application.

SMITH & WESSON,
14 Stockbridge St., Springfield, Mass.

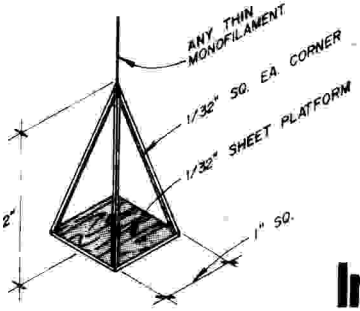
1908


NEXT ISSUE: MULTI-ENGINES !




PIVOT ASSEMBLY




WEIGHING TRAY
BUILD "LIGHT"

WEIGHTS:
MADE FROM COPPER WIRE
USE TWO:
(1) 010 OZ. & (1) 020 OZ
PERMITS WEIGHING FROM .0001 OZ TO .1000 OZ (CAN RESOLVE EVEN LESS)

IMPORTANT NOTES:

1 DO NOT SET UP SCALE IN A DRAFTY AREA

2 ALWAYS CHECK ZERO ADJUST BEFORE CRITICAL WEIGHING

Orbiteers

# Indoor Scale

BY CEZAR BANKS

DRAWN BY BILL BOOTH JR

FROM "EL TORBELLINO"

7

# SITE REPORT:

O.K. Pilots, here it is. The indoor site (Venue, in England) report. I covered about 1,500 miles in 2 days and looked at 5 places.

Citrus Dome, Winter Haven. This joint makes the boxing gym look good. 50 feet high with "Permanant" crepe paper festoons hanging all over the place. Good for the Junior prom, but the pits for models.

Civic Center, Lakeland. Nice place. 55' to girders, and about 10' more of measurable space to the roof. Commercial, always booked to cash customers. As a "cultural" center they are heavy on wrestling, and rock concerts. Sort of a red neck culture, no doubt.

Fla. State Fair Ground: (East of Tampa) Sort of like above, notas high but equally commercial. Always something going on...there was a horse show in progress as Bill Criss and I observed the place. Masses of floor area, but too successful to be vacant long.

POLK COUNTY College, Winter Haven. Hey, hey,..not bad at all for a low ceiling site...35 feet to the top of the dome, with a large, square, score board benaath it, but with few obstructions to cope with. 6 basketball backboards, though retracted, still intrude. A good site, with cooperative and amenable people. I gave a Bostonian, and ROG demo to Director of Campus Services Wallace Bonneau and he was very receptive to the whole idea. A definite possibility.

MACDILL AIR BASE, TAMPA, FLA. Whoo boy, the best site yet, with the best prospects of use. I didn't really miss my appointment with Phil Bayly, it's just that I was 3 1/2 hours late looking for DaleMabry Road in Rustin, Fla. So the next day Bill Criss and I finally got out to the air field. We were fortunate to get an audience with the Wing Commander, and flew our ROG in his office. He looks favorably on the project so we are planning on 4 meets next season there if it is approved. This is the same hangar used in the 83 Nats at Westover air base, Mass. Over 60 feet high and large floor space. Here's hoping!!!

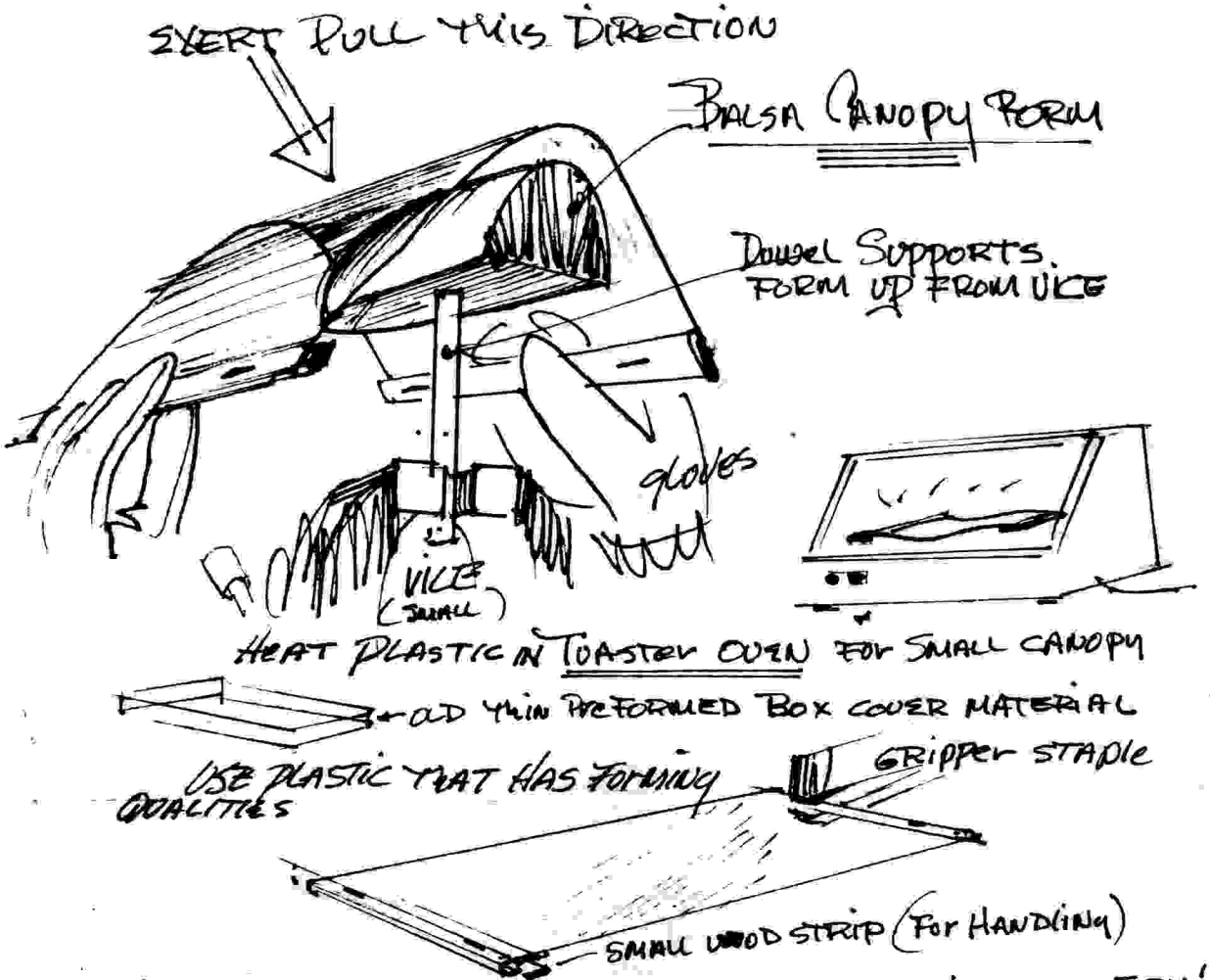
GOODYEAR BLIMP HANGAR, Spring, Texas We were hopeful of this for Indoor Week, but no dice. Goodyear brass "does not wan't to establish a precedent," although the precedent had been established about 100 times previously, with no ill results. It's always so easy to say NO.

IMC Phosphate Warehouse Mulberry, Fla. Dispite gloomy rumors, a recent (March 29) call to Publicity director Janet Roth assures us that all is still "GO" for our last meet on Sat. & Sun. May 19 and 20. As far as next year is concerned, who knows? We know IMC would like to be full of phosphate, and we wish them well. Confirm this date in case (305-858-6363)

Goodyear Blimp Hangar, Opa-Locka: Dade County is spray-painting buses in here. Leased on a month to month basis. Maybe someday we can return.

Goodyear Blimp Hangar, Pompano Beach: Funded BUT NOT STARTED YET !!! This must be a U.S. Government job...Going slower than Metro-rail !!

2 YEARS OR MORE LATE.




**Here it is, hangar pilots: what to do when you don't happen to have a Vac-U-form that all your plans for your favorite airplanes call for. Now Millard tells you how to form wheel pants, cowls, canopys, etc. with only a toaster oven and consumate skill.**

## THE POOR MAN'S VAC-U-FORM by WELLS

Millard says heating the sheet in boiling water also works well but he can't figure how to get it out.

Like the elusive Pike, Good 3-views of the Waco E are hard to come by. Put these in your collection.

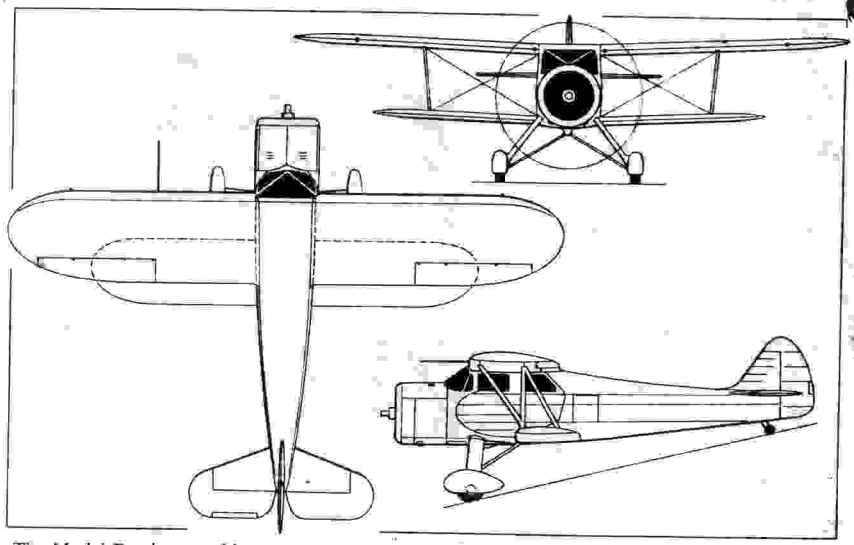
**Last Waco 'cabin'**

*Having read Pete Garland's request for information on the Waco Model D (April 1976 issue), I would much appreciate similar information on the next Waco in sequence, the Model E cabin biplane. I believe that it was used by the USAF for personnel transportation as the UC-72. I shall be grateful for the publication of photos and drawings.*

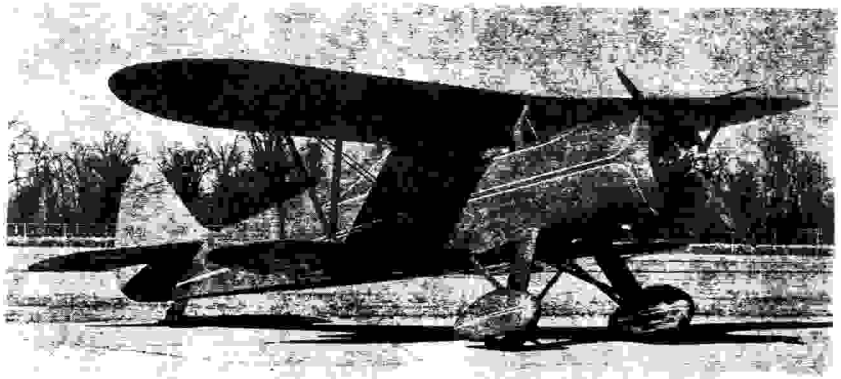
Neville Legg
Gillingham, Kent ME8 6LF

The Model E five-seat cabin biplane made its debut in 1940, and was to be the last of the long series of cabin biplanes produced continuously from 1931 by the Waco Aircraft Company. It was not a progressive development of preceding models but an entirely new design, embodying considerable aerodynamic refinement, plywood skinning in place of fabric for the wings and horizontal tail surfaces, disc type brakes and wires replacing the inclined bracing strut between the upper rear spar fitting at the fuselage and the lower front spar at the base of the N-type interplane strut.

Three versions of the Model E were offered: the ARE (A = Jacobs L-6 engine), the HRE (H = Lycoming R-680 engine) and the SRE (S = Pratt & Whitney Wasp Junior SB engine). Weights and loadings varied with the engine installed, but in other respects there were no basic differences between the three sub-types. The Model E provided accommodation for two persons in side-by-side seats with throw-over control wheel and dual pedals and three persons on a bench-type seat at the rear of the cabin. The fuselage was a welded steel-tube framework with fabric skinning over a light wood fairing structure, the wings comprised two spruce spars, spruce and mahogany ribs, spruce longitudinal stringers and mahogany plywood skinning with an outer covering of fabric, and the fixed tail surfaces were of wood with fabric (fin) and plywood-plus-fabric (tailplane) skinning, the movable surfaces being metal-framed and fabric-covered.



*The Model E (above and below) was the last of the series of cabin biplanes evolved by the Waco Aircraft Corporation and was built in limited numbers with three different types of engine.*



The most powerful version, the SRE with a 400 hp Pratt & Whitney R-985-SB3 Wasp Junior nine-cylinder radial rated at 450 hp at 2,300 rpm for take-off and 400 hp at 2,200 rpm at 5,000 ft (1 525 m), had a max speed of 200 mph (322 km/h), a max continuous cruise of 195 mph (314 km/h) and an initial climb rate of 1,550 ft/min (7.87 m/sec). Empty weight was 2,734 lb (1 240 kg) and loaded weight was 4,000 lb (1814 kg), and overall dimensions were: span, 34 ft 9 in (10,59 m); length, 27 ft 9¾ in (8,50 m); height, 8 ft 8 in (2,64 m); wing area, 285·2 sq ft (26,49 m²).

Twelve Model SREs, one ARE and two HREs were taken over by the USAAF as personnel transports under the respective designations of UC-72, UC-72A and UC-72C respectively. It should be noted, incidentally, that *all* Waco cabin biplanes commandeered by the USAAF — a total of 43 of 15 different models — were assigned the UC-72 designation, the individual model being signified by the suffix letter.

TIME IS SHORT — OTHER CLUB BULLETINS — PLEASE COPY.




MAY 13 1984 - Send entries to Dr John Martin 2180 Tigertail Ave. MIAMI FLA 33133. Include 3-view, instructions, return postage. RULES - NEW AMA PEANUT RULES. DOUBLE COVERED SURFACES NOT REQUIRED. HAND LAUNCHED - NO BONUS FOR R.O.G.

Get building, hangar pilots for the first ever world champs for the smallest scale models in the world. They are easy to send through the mail, and because of their small size, are cheap to mail, and durable in transit.

Here are the classes and awards:

I Under two (2) grams.
II Two(2) to Three 9gm.
III Over Three 9gm

PISTACHIO — MAX: 8" SPAN, OR 6" OVERALL LENGTH (TO REAR OF PROP BOSS)

Also most distant, most unusual, best static score, highest flight time, Lacey/Fike class, and a special award for the smallest model to achieve a 30 SECOND FLIGHT.

# INDOOR MEETS:

CONFIRM, OR DETAILS: 305-858-6363

NEXT MEET APRIL 29 #6 - MIAMI DADE SOUTH COLLEGE 9 TO 5

WORLD PISTACHIO INTERGNATS MAY 13 SAME PLACE, 9 → 5

MAY 19+20 - MEET 7 - IMC WAREHOUSE, MULBERRY 9 TO 5 SAT + SUN

INDOOR WEEK - JUNE 18 TO 22 DETAILS NEXT ISSUE SEE INSIDE COVER

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THE LATEST INDOOR NEWS INSIDE

**THE HANGAR PILOT**

EDITOR: DR. JOHN B. MARTIN MIAMA

2180 TIGERTAIL MIAMI FLORIDA 33133




**TO:**

JIM MILLER
827 YORKHAVEN RD
CINCINNATI OH 45240

**1ST CLASS**
NOT JUNQUE MAIL