INSPIRATIONAL

THE HANGAR PILOT

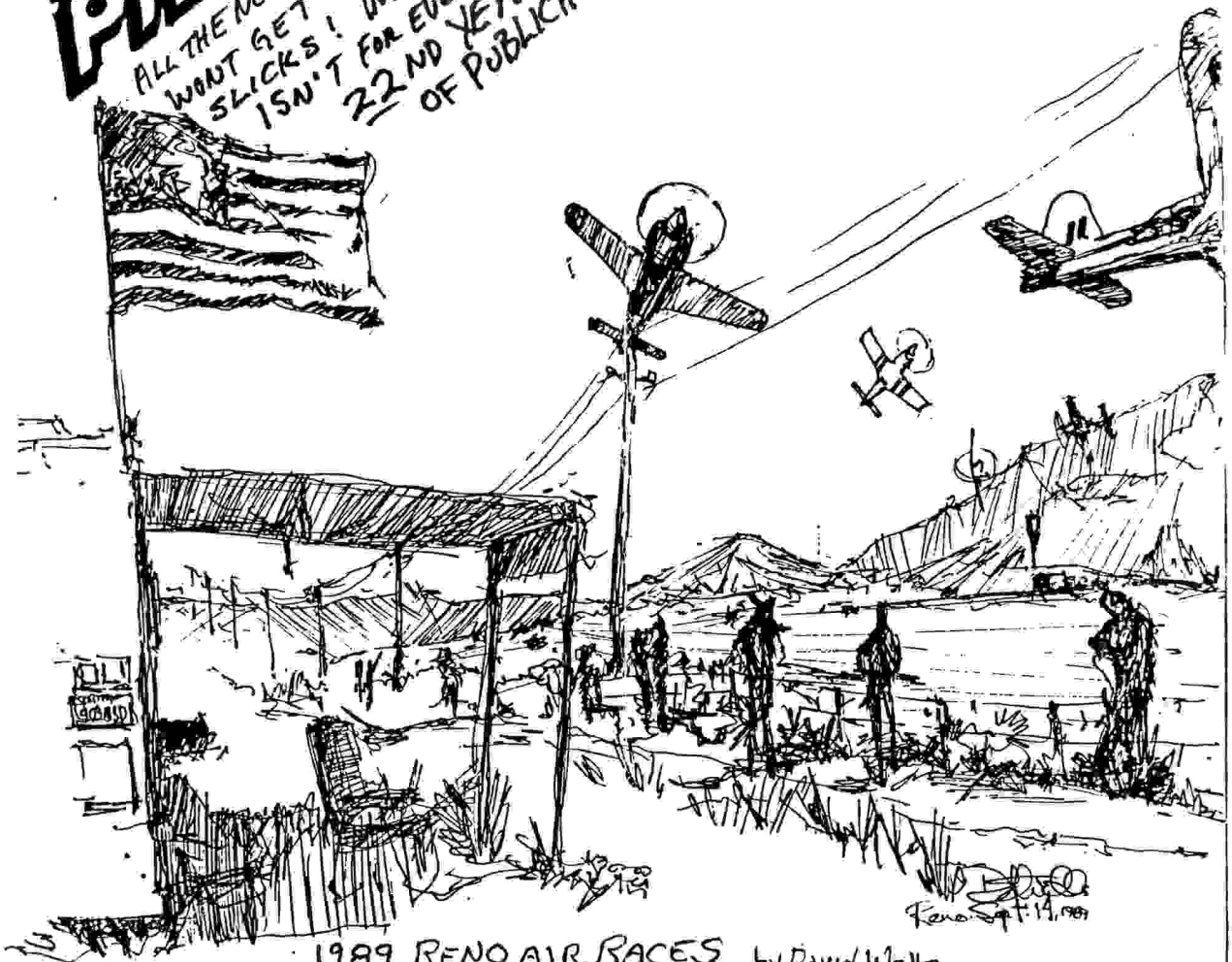
MIAMI INDOOR AIRCRAFT MODEL ASSOCIATION — MIAMA — 305

ALL THE NEWS YOU WONT GET IN THE SLICKS! INDOOR ISN'T FOR EVERYONE!

22ND YEAR OF PUBLICATION

ISSUE 153

- NUNEZ LATEST BOSTONIAN
- RESULTS, KING ORANGE
- PEANUT CURTISS SEAPLANE
- TOM ARNOLD'S CARBON FIBER III
- NEW FAI INDOOR SCALE RULES



1989 RENO AIR RACES by David Wells

NEXT CONTEST: FEB. 13 + 14

US COAST GUARD HANGAR ST PETE AIRPORT 9 to 5



"LIKE A LETTER FROM HOME" Whelan

THE HANGAR PILOT

The Hanger Pilot, edited by John Martin Jr., who is solely responsible 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 986. 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,]-views, complaints, gripes and compliments to: Dr.John Martin Jr., President / Editor, 2180 Tigertail Ave., Miami, FL 33133 USA. phone: 305-858-6363.

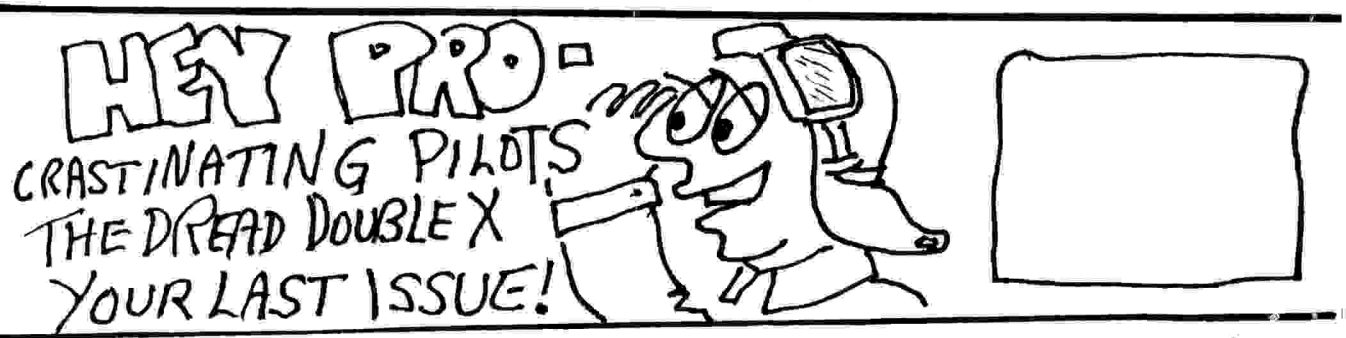
"THE HANGAR PILOT IS A TRIUMPH OF CONTENT OVER MERE FORM" Paul McIlrath *

THE DELTA KING ORANGE MEET

It was a long time (4 months) but we finally got in MIAMA meet #2 as the Eighth Annual Indoor King Orange Contest. We had a good turn out, especially since it was held the day after Christmas and many regulars couldn't make it due to a house full of relatives. Sixteen flyers enjoyed the beautiful 70 foot Delta hangar and set 5 new state records. Special thanks to C/D Rich MaCEntee, and Delta Airlines John Truckerfor running the meet.

Don Garofalow resigned from the Ghost Squadron by showing up for his first MIAMA meet. Also at his first meet was Terry Patterson with his Embryo and Bostonian. We have some "cross-over" flyers who never miss an outdoor free flight meet, and now are flying indoor too....Wayne Cain, Don Brimmer and Tom McCoy. Welcome, Y'all! VTO Dave Linstrum is going big time with a State record in Coconut (With Dave Rees' Zippy Sport) and wins in Pistachio and Coconut mass launch. Walt Van Gorder broke his own Manhattan record and Obarski set a new NO-Cal Scale standard. No-Cal is now attracting more entries than any of our other events. At closing time on Sunday there were still a lot of pilots flying away with great reluctance to go home.

Pilots, after losing most of November in the hospital, it sure felt good to get back to the hangar and crank in some turns again. Thanks for those notes as you resubscribe to the loveable, humble Hangar Pilot And to you procrastinators ..GTT IN YOUR DUES! Don't miss a single issue of your favorite newsletter!



* We're not sure, but we believe Paul meant this as a compliment.

FLY DELTA!

(2)

RESULTS OF THE MIAMA KING ORANGE INDOOR MEET C/D RICH MACENTEE Dec.26,27, 1992

peanut event;	Model,Static Score	two best flights		total:
1.Wayne Trivin	14-Bis 111	1:12.2	1:16.1	185.1
2.John Martin	Astra 97.2	1:24.4	1:22.2	180.5
3.Sidney Gilbert Lacey	M-10 80.6	1:09.9	1:10.7	150.8
4.Don Brimmer	Lemberg 86.8	35.0	31.6	118.1
5.Walt Schlesinger	Cougar 80.0	33.0	34.0	113.5
6.Wayne Cain (6.)	Cougar 86.4	21.2		97.0

Entered but did not fly: Don Brimmer Lacey 82.6 and Fokker tripe 92.8. Tom McCoy Fike 77.9. Rich MacEntee Voisin Hydro 117.6, Astra 100.8, Fike 88.2.

FAC Event:

1.Wayne Trivin	14-Bis	84	1:31	(75.5)	159.5
2.Doc Martin	Waco Hydro	77	51.2		128.2
3.Carl Hedley	Stinson 125	51.5	59.7		111.2
4.Walt Schlesinger	Leopard Moth	54	28.8		82.8

NO-CAL SCALE: NEW STATE RECORD ★

1.Dick Obasski	Farman	4:26
2.Wayne Trivin	Farman	4:25
3.Tom McCoy	Cougar	3:30
4.Dave Linstrum	Sukhoi	2:31
5.Sid Gilbert	Cassutt	1:33.9
6.Doc Martin	Wight	:58
7.Don Brimmer	Citabria	:52.8
8.Walt Schlesinger	SAI-207	:33.7

PISTACHIO SCALE:

1.Dave Linstrum	Dornier Komet	1:16
2.Doc Martin	Messerschmitt	1:09
3.Sidney Gilbert	Lacey	:46.8
Dave Linstrum	Pacific Ace	L:07

MINI STICK: Wayne Trivin 7:38.1 ★ NEW RECORD
2.Doc Martin 3:18

COCONUT SCALE: ★ NEW RECORD

1.Dave Linstrum	Zippy Sport	2:07
2.Doc Martin	Junkers Strato	1:20.3
3.Rich MacEntee	Found	1:11.9
4.Walt Schlesinger	DH Leopard	13.1

DIME SCALE:

1. Doc Martin	Puss Moth	200	NEW RECORD ★
X "	" " Curtiss	Falcon 169	
2.Dave Linstrum	Cessna C-39	107	
3.Walt Schlesinger	D-7	19	

MANHATTAN CABIN:

1.Walt Van Gorder	10:46	NEW STATE RECORD ★
2.Wayne Trivin	8:01	
3.Rich MacEntee	7:04	

EASY B:

1.Walt Van Gorder	17:40
2.Dick Obarski	16:50
3.Joe Nuszer	12:35
4.Wayne Trivin	11:18
5.Rich MacEntee	11:05
6.George Leffler	10:04

LIMITED PENNY PLANE:

1.Rich MacEntee	10:41
2.Wayne Trivin	10:31
3.Dick Obarski	10:28
4.George Leffler	9:21
5. Joe Nuszer	8:39

INTERMEDIATE STICK
Dick Obarski 19:11

BOSTONIAN:

1.Wayne Trivin	Living Colors	1.12	3:24	3:13
2.Dick Obarski	Gen-Di	1.09	3:02	2:50
3.Sidney Gilbert	7-UP	1.10	1:22.8	1:21.6
4.Carl Hedley	Ascender Canard	1.15	1:15	1:15
5.Terry Patterson	Old Boston	1:08	1:16.4	1:02.5
6.Walt Schlesinger	Pup	1.10	:41.9	:43.2

EMBRYO ENDURANCE:

1.Wayne Trivin	Yellow Bird 9	2:18	2:23	3:14
2.Dave Linstrum	X-Y Chromosome 9	1:56.5	2:14.3	2:00
3.Terry Patterson	Long One 9	1:57.2	1:34	1:58
4. Carl Hedley	Horney 9	1:11	1:15	1:18
5.Sidney Gilbert	net 9	56.5	1:03.5	1:11.2
6. Walt Schlesinger	12½ ¢ 9	46.1	42	43

MASS LAUNCH EVENTS

COCONUT SCALE:
1.Dave Linstrum Zippy
2.Doc Martin Junkers
3.Walt Schlesinger Cougar

PEANUT SCALE
1.Doc Martin J-3 Cub
2.Sid Gilbert Lacey
3.Walt Schlesinger Cougar
4.George Leffler Lacey

MIAMA THERAPY: GO TO CHURCH. THEN COME HOME AND BUILD A MODEL PLANE.

NEXT MEET - U.S. COAST GUARD HANGAR - ST PETE CLEARWATER AIRPORT. FEB 13,14. 9 TO 5. FAC MASS LAUNCH! - WORLD WAR II. ALSO BRING YOUR PEANUT + COCONUT FOR 2 MORE MASS LAUNCHES.

(3)

FAI PROVISIONAL RULES

FAI now has three new INDOOR SCALE classes: F4D(Rubber Power) F4E (CO2 or Electric), and F4F (Peanut Scale). Interscale 93 will be flown at Nottingham on Sept. 25,26 to these rules, including Pistachio (Open to proxy entry). Pistachio rules later.

CLASS F4D - INDOOR FREE FLIGHT SCALE MODELS POWERED BY EXTENSIBLE MOTORS

6.4. General rules and standards for static judging as under 6.1. apply with the following amendment:
6.1.10. Minimum judging distances to read 1.5m and 0.5m instead of 3m and 1m. (Note: 6.1.6.a. shall also apply.)

6.4.1. General Characteristics

Maximum flying weight 150gm
Maximum wing loading: 15gm/dm^2
Motive power: extensible motor(s) only

6.4.2. Definition of an Official Flight

An official flight shall be recorded when the model has been airborne for 15 seconds.

6.4.3. Number of Flights

Each competitor shall have the opportunity to make a minimum of four flights.

6.4.4. Flying Time

A minimum period of 15 minutes shall be allocated for trimming before the competition begins and the competitor must be called 5 minutes before he/she is required to occupy the starting area. Failure to comply will result in loss of the flight. The model will be released upon instruction from the flight judges within a period of 3 minutes plus 1 minute for each additional motor. Only one release is permitted during the allocated time.

6.4.5. Judging for Flight Realism

6.4.5.1.	Take off (optional see 6.1.6.a.)	K=10
6.4.5.2.	Initial climb	K=8
6.4.5.3.	Descent and landing approach	K=12
6.4.5.4.	Quality of landing	K=11
6.4.5.5.	Realism of flight	K=24
	Total	K=65

6.4.6. Complexity Bonus

The flight shall be subject to a complexity bonus as listed in the following schedule. All bonuses are additive. The best flight score shall be factored by the appropriate total bonus to become the scoring flight.

a) Propellers (on different thrust lines) — % bonus

Single	0
Two or more	15

Note that each propeller must contribute significantly to the total thrust.

b) Undercarriage — % bonus

Fixed (any configuration)	0
Retractable (remains up for landing)	10
Retractable (lowers again for landing)	20

6.4.7. Marking (Flight Points)

Each part of the flight, as defined in 6.4.5. will be awarded marks between 0 and 10 by each judge during the flight. These marks are then each multiplied by the appropriate K factor and aggregated before the bonuses are applied as described in 6.4.6.

6.4.8. Flight Score

The flight score shall be the aggregate sum of points awarded by the judges as described in 6.4.6. and 6.4.7.

6.4.9. Total Score

Add the points earned in 6.1.12. to the best flight score as defined in 6.4.8.

6.5. Class F4E - Indoor Free Flight Scale Models Powered by CO2 or Electric Motors

General rules and standards for static judging as under 6.1. apply with the following amendments:

a) 6.1.1. Minimum judging distances to read 1.5m and 0.5m instead of 3m and 1m. (Note: 6.1.a. shall also apply.)

6.5.1. General Characteristics

Maximum flying weight ..... 150 gm
Maximum wing loading ..... 15 gm/dm^2
Motive power: a) Commercially produced reciprocating motors driven by carbon dioxide gas with the gas storage tank carried on the model.
or, b) electric motors with the batteries carried in the model.

Entry-Level Microfilm Postal Contest Proposed

Encouraged by the success of the Mini Stick event, our group is considering sponsoring an international postal contest for a small, entry level, microfilm model.

I would like to get feed-back from indoor modelers. If there is sufficient interest, model specifications and contest rules will be announced this fall.

The model would be larger than Mini Stick, but small enough to be suitable for small, low-ceiling sites. Minimum weight would be around a gram. The model would be a monoplane and no fancy gadgets would be allowed. Microfilm would be allowed but not required. This should encourage beginners who need help getting down to competitive weight to try microfilm.

If you are interested please contact me.

Tom Vallee, 444 Henryton S., Laurel, Md. 20724

(5)

CLASS F4F - PEANUT FORMULA INDOOR FREE FLIGHT SCALE MODELS

6.6. General Rules

General rules and standards for static judging as under 6.1. shall not apply except for the following:
a) 6.1.7. number of models;
b) 6.1.9.2. name of entry.

6.6.1. Definition of Peanut Formula Scale Models

A Peanut Formula scale model shall be a reproduction of a heavier-than-air man carrying aircraft.

6.6.2. General Characteristics

Maximum dimensions: 33cm span or
23cm overall length excluding the propeller.
Motive power: Extensible motor(s) only.

6.6.3. Documentation

The minimum documentation is as follows:
a) a general arrangement drawing of at least 5cm wing span, plus one photograph of the aeroplane reproduced, or
b) a coloured 3-view to a minimum of 1/144th scale.

6.6.4. Flying Section

Each competitor is allowed a minimum of 4 official flights with two attempts per flight (an attempt is less than 5 seconds duration). The times of the longest two flights will be aggregated to form the competitor's flight score. Flights may be hand launched or from take off. If take off is successfully achieved, without pushing or similar assistance, then 10 seconds will be added to that flight time recorded.

6.6.5. Appearance Score

Models will be judged visually, in comparison with the documentation provided, by one or more judges. No measurements will be taken. Marks will be awarded as follows:

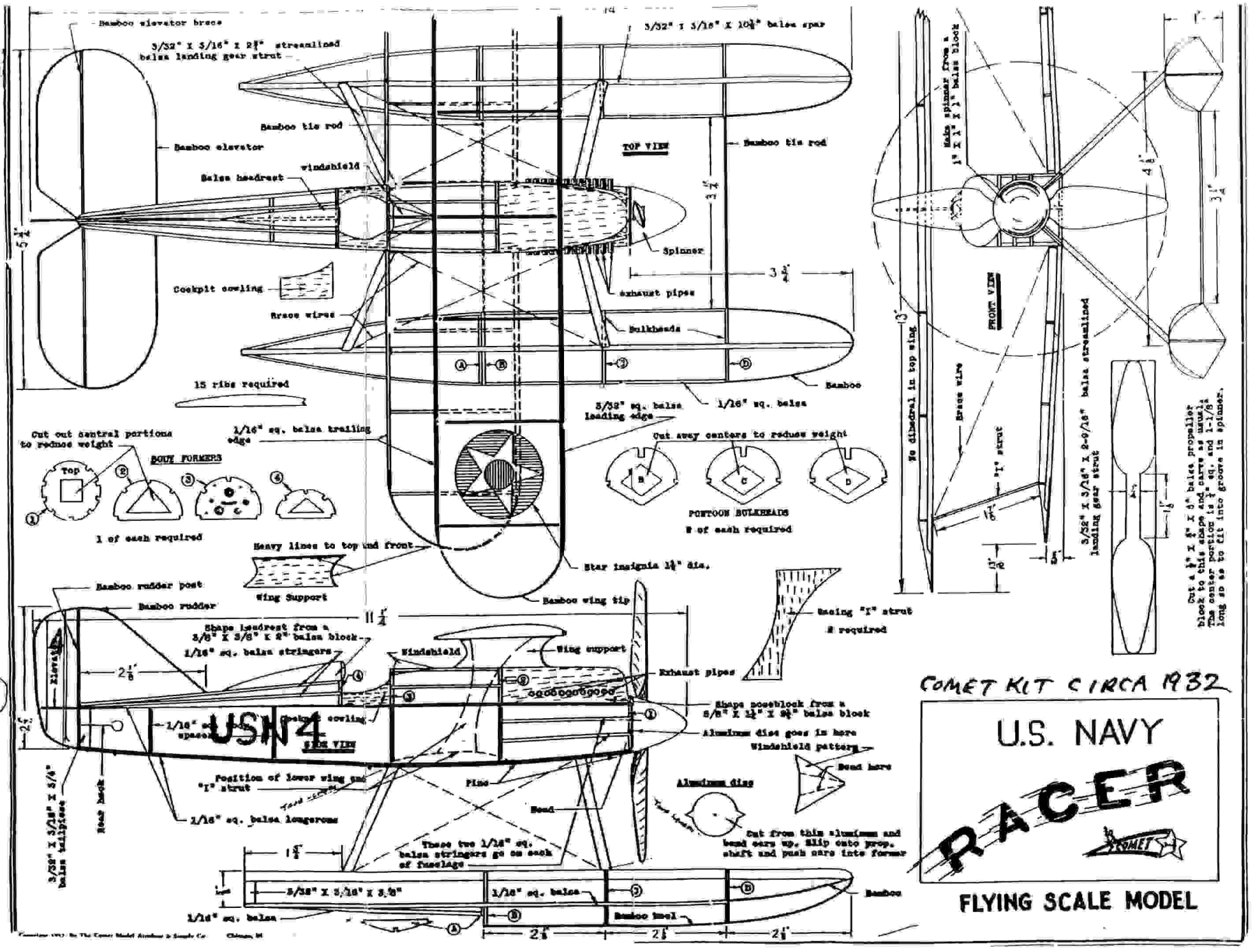
a)	Workmanship	0 - 15
b)	Complexity of colour and markings	0 - 10
c)	Authentic details:	
	many	5
	some	2
	none	0
d)	Flying surfaces:	
	all double covered	4
	double covered wing but single covered tail	2
	single sheet	1
	single surface	0
e)	type of covering:	
	colour doped	9

CONTINUED ON PAGE 10

IRRESISTIBLE!

ENLARGE TO 13" SPAN FOR ORIGINAL SIZE.

(6)



COMET KIT CIRCA 1932

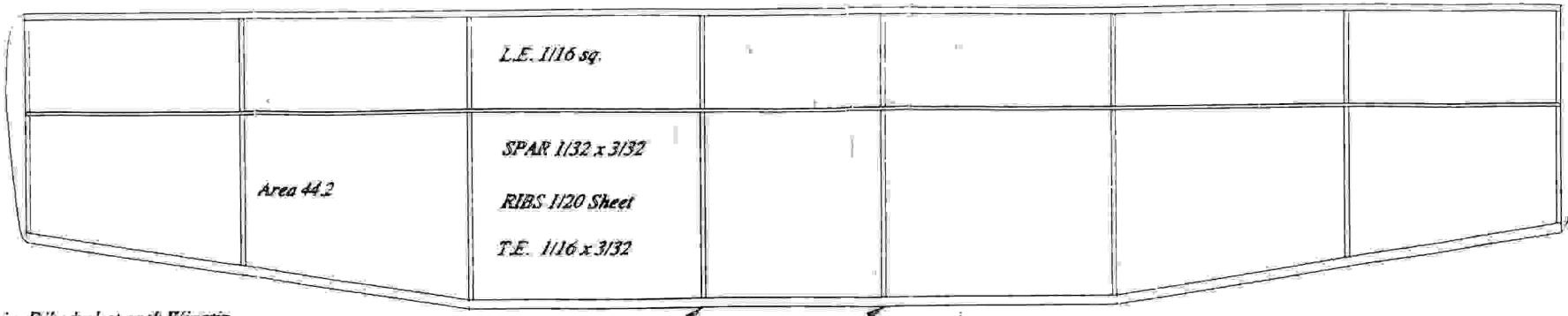
U.S. NAVY RACER

COMET

FLYING SCALE MODEL

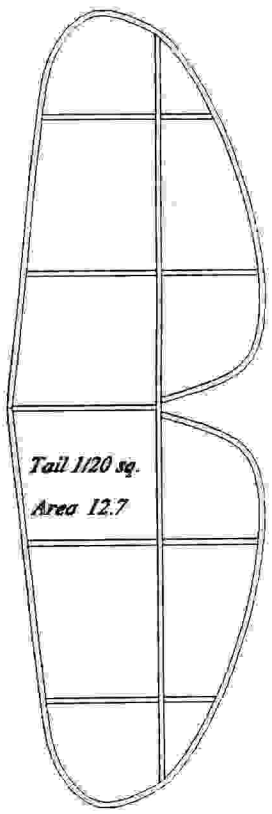
Copyright 1932 by The Comet Model Airplane & Supply Co. Chicago, Ill.

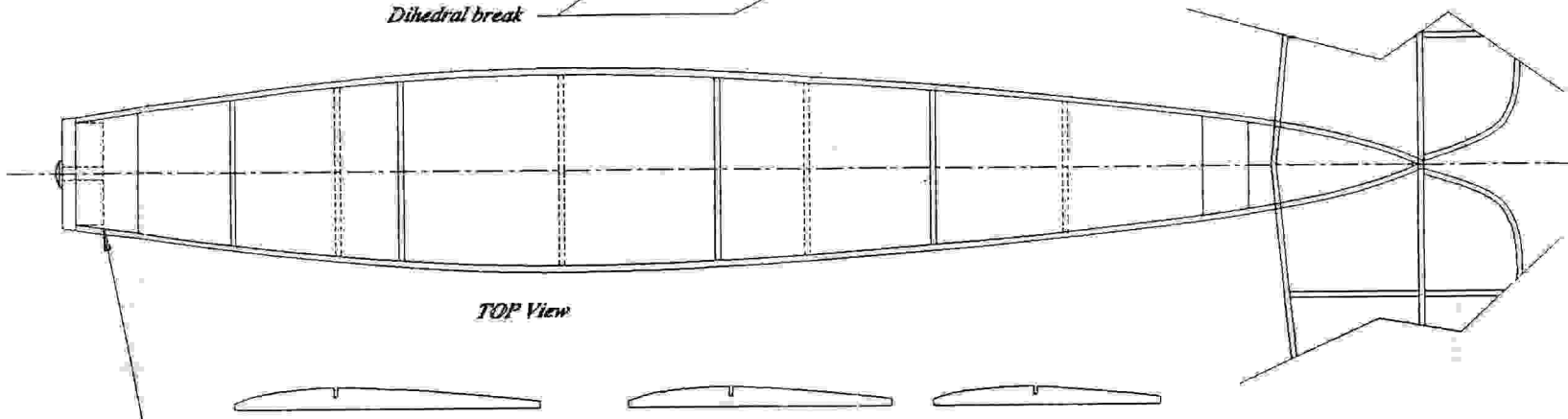
(7)



1/2 in. Dihedral at each Wingtip

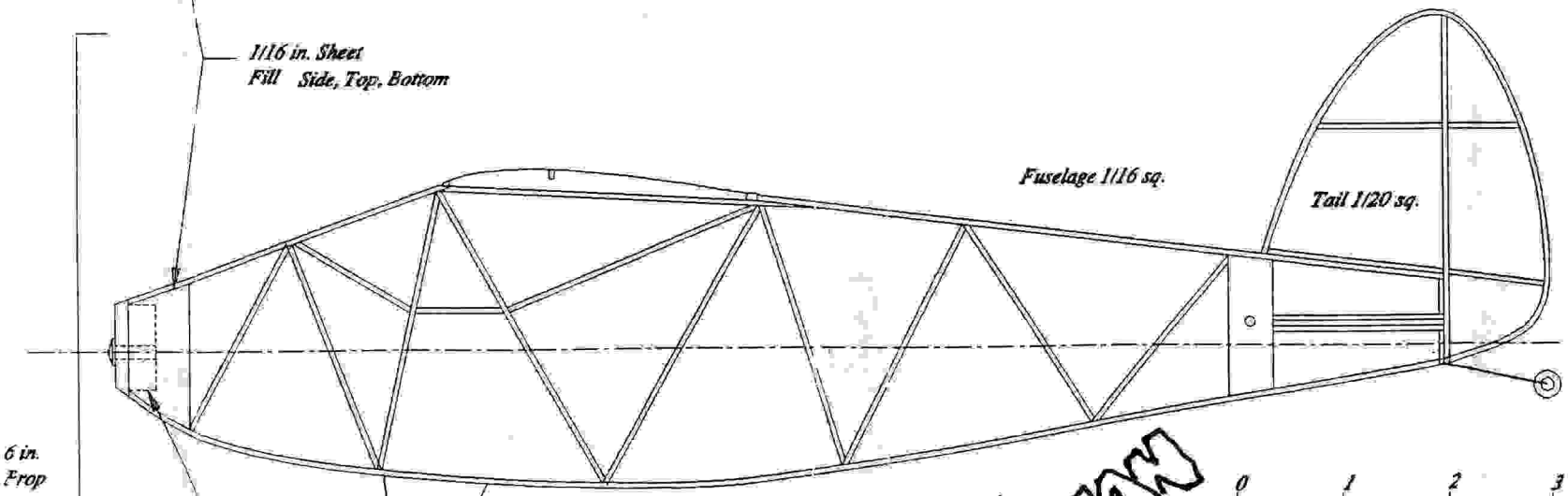
Dihedral break



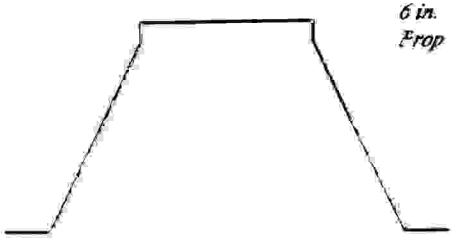


TOP View

1/16 in. Sheet
Fill Side, Top, Bottom



6 in.
Prop



1/4 in.
Lock Block

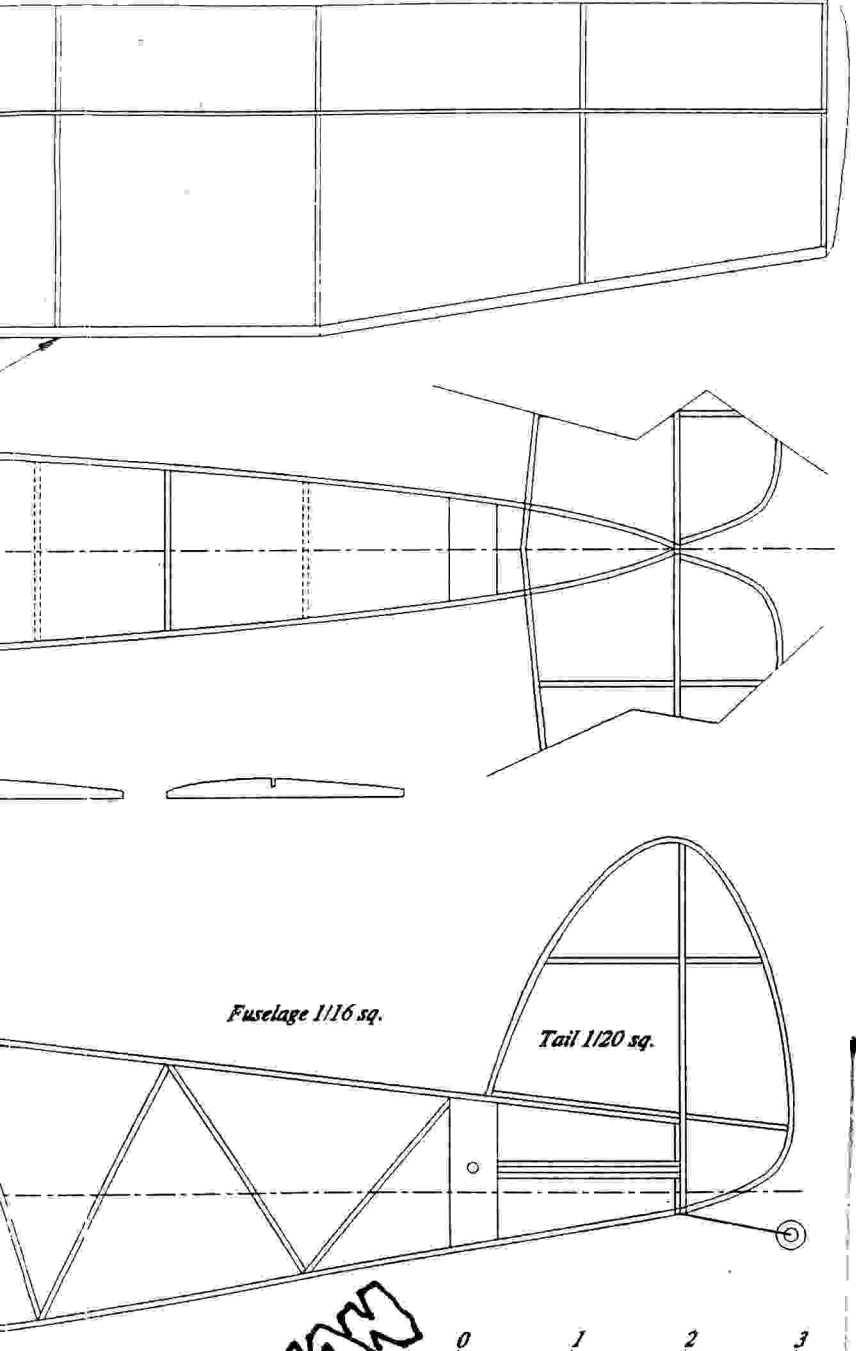
Landing Gear Wire
.020 in.

3/4 in. Wheels
Foam Pants



THE JONATHAN

BOSTONIAN by G. Nunez
Miami, 9/92



THE JONATHAN

BOSTONIAN by G. Nunez
Miami, 9/92

HERE IS GEORGE NUNEZ' LATEST BOSTONIAN NOT FLIGHT PROVED AS YET.

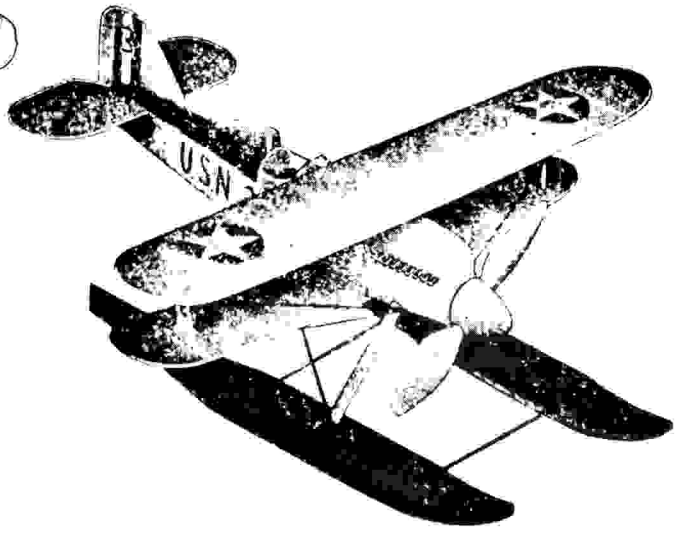
HE DOESN'T DIVULGE HIS "6 in. PROP" OR POWER IN THIS PLAN. MAYBE HE JUST LIKES TO GET MAIL: G.N.

12700 SW 20TH ST
MIAMI FL 33175

NEWS FLASH!

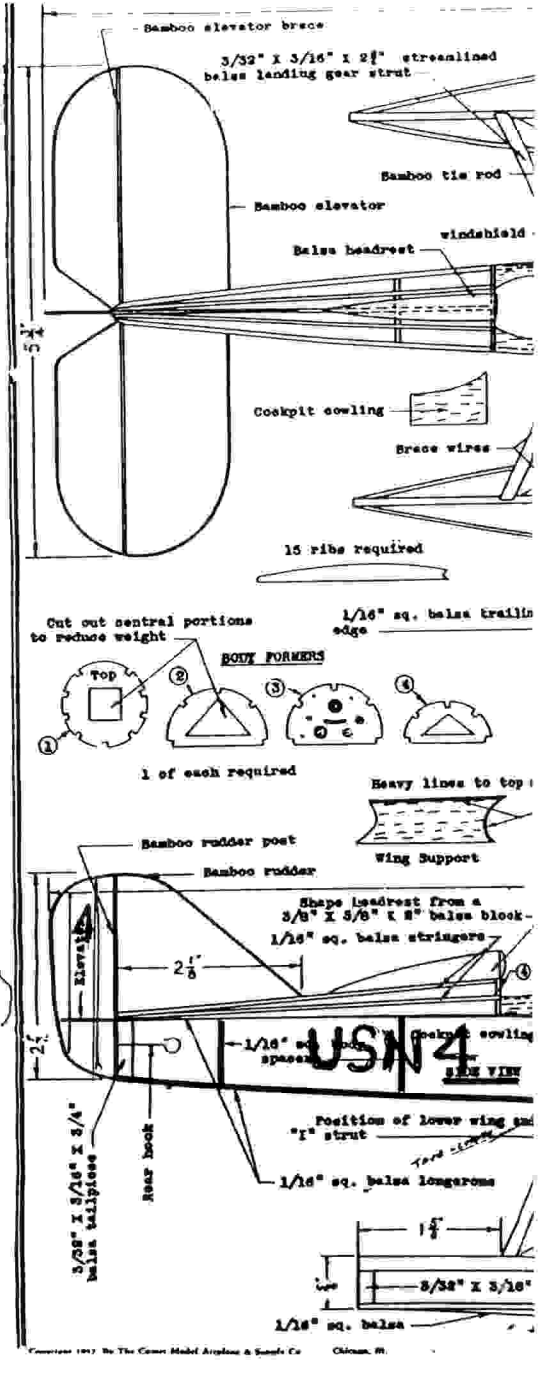
NOV 7+8 MIAMA 1992 MEET #2 — THE "LOST RESULTS" HAVE BEEN FOUND! HIDDEN IN EVERSON'S FIELD KIT. THEY WILL BE PUBLISHED IN #154!

(9)



U.S. NAVY RACER by Comet. Jimmy Dolittle flew this in the Schneider Cup Races. First kitted in 1932, it is now a collector item. 13" L-006 $1.50

IRRESISTIBLE!



THIS KIND OF GREAT STUFF FROM: GOLDEN AGE REPRODUCTIONS PO BOX 1685 ANDOVER, MA 01810 - CATALOG $2.50

THIS IS THE CURTISS CR-3, WINNER OF THE 1923 SCHNEIDER CUP, AND FLOWN BY DAVID RITTENHOUSE, NOT DOLITTLE.

COLOR SCHEME: NAVY GREY; VERTICAL STABILIZER, LEMON YELLOW; RUDDER, WHITE; FLOAT BOTTOM, RED; LETTERS AND NUMBERS, BLACK W/ WHITE OUTLINE, NAVY INSIGNIA, GEN. ISSUE BLUE. STARS (ON BOTTOM OF WINGS) RED, WHITE + BLUE

THIS MODEL WAS MUCH CAMPAIGNED IN ENGLAND, AT OLD WARDEN AND ELSEWHERE, WITH A GREAT DEAL OF SUCCESS BY LINDSEY SMITH. HE NOW HEADS ENGLAND'S SQDN. 35, THE FIRST FLYING ACES CLUB IN UK!!

NOTE: THE PEANUT RULES ARE BASED ON THE DOC/HADLAND RULES OF THE 70'S. THE F4D FLIGHT SECTION IS VERY DIFFERENT TO USA STANDARDS. DURATION DOES NOT MATTER AS LONG AS YOU GET AT LEAST 15 SECONDS. AFTER THAT IT'S "FLIGHT REALISM" (10)

clear doped tissue	5
undoped tissue	3
condenser paper	2
microfilm	0
f) Landing gear:	
scale length	3
slight enlarged	2
greatly enlarged or no documentation	1
none or retracted	0
g) Dihedral:	
scale	3
slight exaggerated	1
grossly exaggerated or no documentation	0
h) Stabiliser outline:	
scale	3
enlarged	1
grossly enlarged	0
i) Bonus points for complexity:	
low wing	9
biplane	9
triplane	15
autogyro	21
helicopter	27
flying boat or floatplane	9
scale number of wing ribs	2 per wing
scale number of tailplane ribs	1
scale number of rudder ribs	1/2
separate ailerons	1
separate rudder and elevator	1
other than square fuselage	1
wheel spats or pants	1
three dimensional pilot	1
exposed engine	1
j) Negative points for deviation from scale to assist flying performance:	
lengthening of nose or tail moment	2 each
moving wing back	2
simplifying fuselage cross-section	2
enlarging rudder	2
all other nonscale performance aids	2 each

The competitor's appearance score will be the sum of the marks awarded in 6.6.4.a) through 6.6.4.j).

6.6.6. Scoring

The order of marking in 6.6.3. and 6.6.4. will produce a "place" in the flying and appearance sections respectively. Each competitor's numerical "places" in the two sections are added. The lowest overall totals then determine the final overall placings in the competition. A fly off in which the realism of flight is the determining factor (marked to section 6.4.5.) will be held, if necessary, to break ties in the final placing of the leaders. In the event of a tie for appearance of flying the next lower position receives a "place" on greater than the total number of competitors ahead of him.

CARBON FIBER- The Continuing Saga

By T. Arnold IN HANGAR PILOT 142 WE USED TOM'S PART I. HERE IS HIS PART II:

The more you play with this stuff, the better it becomes! We left off last time talking about a form of CF called a "laminate" and its uses in our low tech airplanes. Since then, I've been introduced to not only more and better forms but also a very accommodating supplier who runs a very prompt mail order service. For a list of their products along with descriptions of them send a SASE to:

BRADLEY MODEL PRODUCTS. 1337 PINE SAP CT. ORLANDO, FL. 32825 $1.00 CATALOG

Aerospace Composite Products
P.O. Box 16621
Irvine, CA 92714
(714) 250-1107

Going through the product descriptions, the forms of CF we are most interested in are:

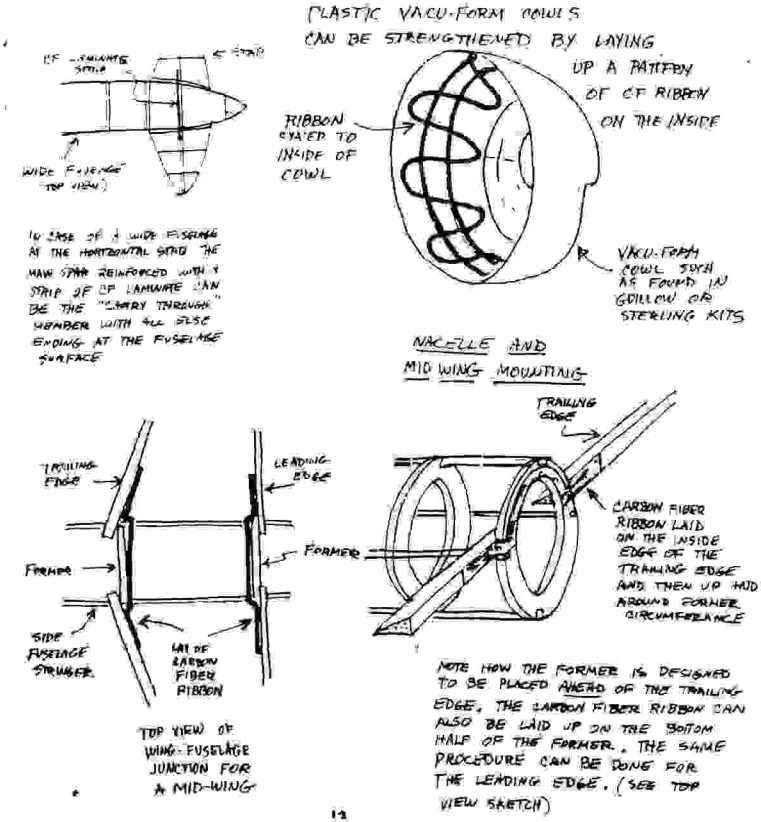
Laminate: This is the form described in the last article. The actual carbon fibers are all laid in precise parallel orientation and the whole sheet is bonded to tissue paper by some medium. The stuff is similar to a sheet of thin, stiff, black, typing paper. By nicking the edge, you can peel off long, springy strips down to the width of 1/64 easily. The .007 thickness is the best.

Braided Carbon Cord: Image a long, tiny, tiny, 3 braid pigtail and thats CF cord. The cord is the size, literally, of 1/32 wire. It also is soft and flexible just like hair.

Carbon Fiber Tape: This form is an expanded version of the ribbon, only to keep the 1" width of the hair from tangling up it is lightly mounted on a strip of tissue paper.

Ribbon: This looks (and feels) exactly like a long, fine lock of my daughter's jet black hair! It is a soft, limp, lock about 1/8" wide that is held together by a "sizing" or something like hairspray that keeps the "hair" together. However, you can spread the fibers apart and split it into narrower "locks" if you wish. In fact, you can tangle the whole thing up just like hair if you really get clumsy fingers. It's also called "tow" in the composite industry.

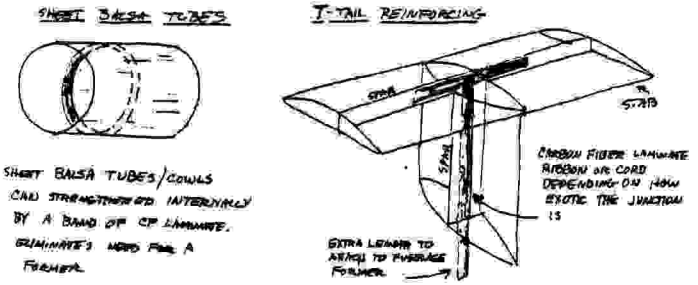
While Aerospace Composites have a good 60+ more products, these are the ones I experimented with. For the purposes of free flight scale, the laminate (.007 thickness) is the most useful as for strength vs. weight just because of the exact linear orientation of the carbon fibers and the varieties of sizes that can be stripped off. Next comes the ribbon as its flexibility and small width can allow you to lay it around corners to strengthen balsa. It can be twisted to form a small cord, wrapped around joints, and run in 3 axis to strengthen joints. Once in place, a soaking with CYA glue gives you "instant metal" almost (without the weight). You'll find that when failure does occur, the balsa will split off a patch of itself that is glued to the CF. In other words, the strength of the balsa itself is the limiting factor which is the way it should be.

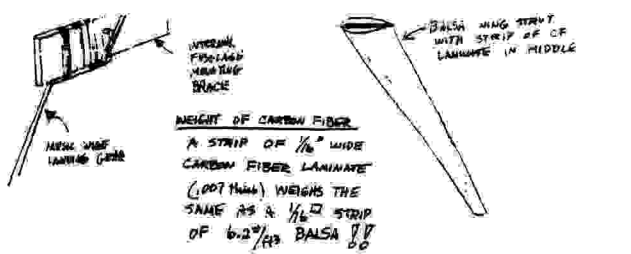


The braided carbon cord also can be used in the same manner without the worry of getting any fibers needlessly tangled and its main advantage is its ease of handling. However, its cost is a lot higher relative to the ribbon. (They've got to pay Tinkerbelle & her friends to braid the stuff at night and Union wages are outta sight).

The carbon fiber tape has the least practicality as far as our small airplanes are concerned mostly because it's just so much. The RC and big plane modelers would find a number of uses though. As a for instance, laying a spanwise strip of the tape, top and bottom of foam wing and bonding it into place is a great and strong instant spar. Doubler reinforcing and such comes to mind too. Essentially, it's like the ribbon only on a grander scale. However, it is also the

most for your money but trying to break it down into smaller width is a bear. The ribbon is far superior for handling ease.

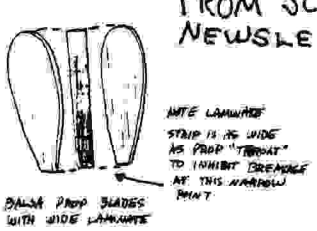


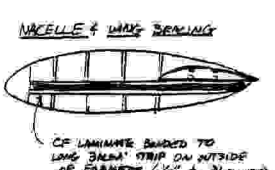


The main thing to remember in any use of CF is that it is strongest in tension and compression directed in a straight line parallel to the fibers. The more you deviate from that ideal situation, the weaker the CF layup becomes. However, even in its most convoluted layups, it's still very strong for our purposes and will do the job.

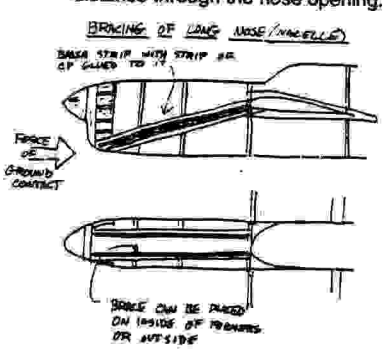
The second factor to always consider is that the layup must be kept from buckling to have that strength. Your glue bonds have got to be good and the CF needs to be snuggled up tight to the balsa. I lined a bunch of fuselage formers with 1/16" CF strips recently and thanks to my sloppy gluing (I know, I know, but I was in a hurry), they popped out halfway after the stringers had been put on. Jeez, what a zoo it was, too, trying to reattach them!

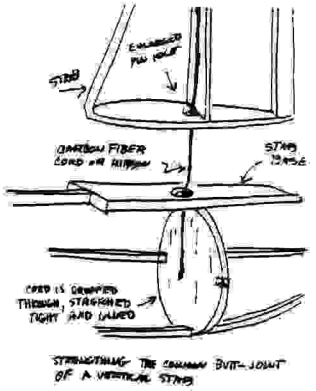
FROM SCALE STAFFEL NEWSLETTER. TOM ARNOLD, ED.





The illustrations are mainly concerned with uses of the ribbon and I will say that they all have not been tried (but will be) so take them as suggestions for right now. A little philosophy might be in order here. I realize that there is a strong tree lobby in free flight scale ("if it don't come from wood, it ain't no good"), but wait! Hear me out. First off, we are trying to replicate a lot of times in wood what was originally built in metal. Metal is a lot stronger than wood and designers really had a field day when they were finally freed from trying to haul a lumberyard thro ugh the air. Planes got stronger, faster, wing loadings dropped (yes, they did - until engines got more power), and designers could follow the laws of aerodynamics instead of fighting them. Junctions of nacelles and wings got impossibly skinny, flying surfaces became thinner, noses got longer, landing gear moved to the wings, for just a few examples. That's tough enough to replicate in wood & tissue but now put a flailing snake called a rubber motor right through the middle of the fuselage or nacelle. What little strength you had just disappeared. Ever build an F4F wildcat? Wasn't it great to pick it up after it did a cartwheel and feel that wobbly wing? It probably didn't even hit too hard or maybe it did. Whatever, it's always a thrill to stand in the hot sun with sweat drippings off your nose trying to glue a mass of shattered formers and stringers via long distance through the nose opening.





We cry for lightness and strive for low wing loadings so our models will give those soul satisfying slow circles overhead, so why should we be reluctant to use "something" light and strong to achieve that? We cut balsa formers as narrow as we dare, eliminate stringers with a heavy heart, and shave every possible gram we can get away with and yet not want to use a strip of CF that would allow us to cut even more weight? Hobby shopowners must love us the way we paw over their balsa stock pinching, nicking, holding up to the light, weighing and then sniffing that they don't have any decent light stuff. The road we travel for lightness and strength is only exceeded by the indoor crowd. Now, at last, science has sympathized with us and given us something to bring more joy to the flying field . . . and here's the best part: trees have carbon.

USIC SAVED BY TOM IACOBELLIS

N.Y. MODELER NATIONAL HERO

After a long search to find the best person for the job Tony Italiano has announced that Tom Iacobellis of Hawthorne NY is to be the manager of the United States Indoor Championships to be held in Johnson City TN June 3-4-5-6, 1993. Addition of the Nationals (see Nationals story) to the USIC extended the contest from three to four days. As those who have attended know Johnson City has a plethora of reasonably priced housing. Banquet is June 4

Tom Iacobellis
198 Manhattan AVE
Hawthorne NY 10532

Phone: 914-747-9038

TOM NEEDS VOLUNTEERS

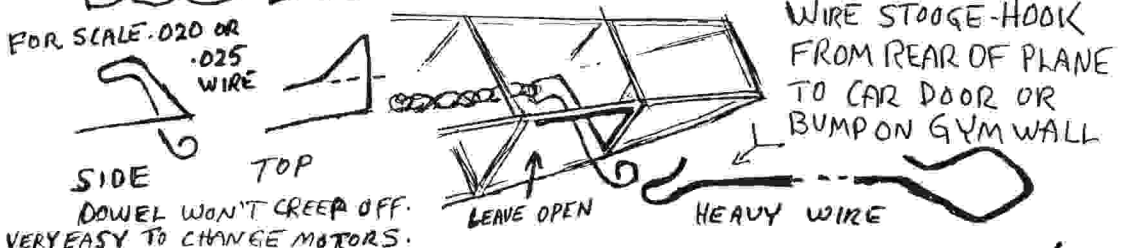
THIS ITEM LIFTED FROM INAV.

NEED ANYTHING?

THIS SPACE AVAILABLE TO LIST YOUR NEEDS -

WRITE TO - "WANTS + DISPOSALS."

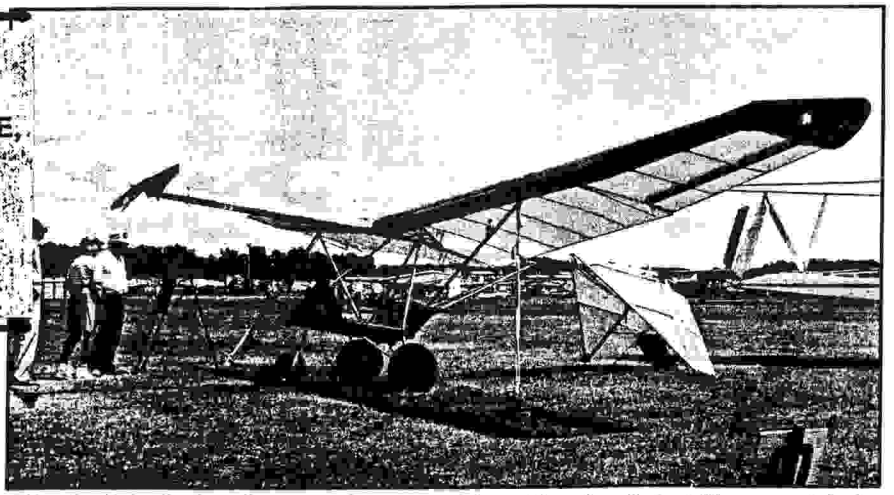
DOC'S LOW TECH REAR HOOK



TRY THIS - YOU'LL NEVER GO BACK TO A DOWEL STICK!

• LOST DOG •

3 LEGS, BLIND IN LEFT EYE, MISSING RIGHT EAR, TAIL BROKEN, RECENTLY NEUTERED, ANSWERS TO NAME OF "LUCKY"



This ultralight, believe it or not, is powered by rubber bands just like a model airplane. It made a short but successful flight last July. The "motor" is wound with a large electric drill.

RALPH SQUEGLIA ASKS "WHO WILL BE THE FIRST TO BUILD AN AMA SCALE OF THIS?"

LA LA LAND ALERT - BEFORE THE END OF MARCH, '93 YOU + YOUR PALS FLY MINI-STICKS + SEND THE TIMES, + CEILING HEIGHT TO MIKE. A GOOD CLEAN, LOW CEILING IS FINE.

(14)

403 Mossy Lea Road,
Wrightington,
Wigan, Lancs,
WN6 9SB, ENGLAND.
13/9/92.

Dear Club Secretary or Contact/ Magazine Editor,

Once again the British Model Flying Association, Indoor Technical Committee would like to invite your members / readers to take part in "THE 1993 LIVING ROOM STICK / MINI STICK INTERNATIONAL INDOOR POSTAL CONTEST", to be run over this winter period. Can you please pass on/publish this contest for your members/readership.

The rules for the contest will be as follows:-

1: The contest is open to Indoor models that comply with the Living Room Stick/Mini Stick Rules.(The Spec. is the same as last year)
2: Contest flights are to be made between 1st. Jan. 1993 and 31st. March 1993.
3: Any number of flights can be made at any number of sites.
4: All contest flights to be timed by someone other than the flyer.
5: All contest flights to be recorded on an official Results Form, got from the above address.(please send S.S.A.E. etc..you can make extra copies.)
6: Best single flight time wins, after the flight time has been corrected for diffrent ceiling heights. Ceiling height to be measured as per F.A.I. but with a 5 meter diameter circle. The correction factor is 627 divided by (167 plus 46 times the square root of the ceiling height in feet.). The time in seconds will be multiplied by this to give the corrected time.
7: Prizes will be awarded dependent on the number of contestants.
8: All Results Forms to be returned to the above address no later than 10th April 1993.
9: Entry is FREE to All contestants. (A club sticker sent to the organiser would be appreciated.)
10: Results will be sent if a S.S.A.E. is included with the Results Forms.

'LIVING ROOM STICK/MINI STICK' Model Rules

Model

Monoplane. Max. Span (projected) ---------- 7.0 inches.
Max. Wing Chord. ---------- 2.5 inches.
Stick Length. ---------- 5.0 inches.
Max. Model Length. (Less Prop.) ---------- 10.0 inches.
Stab. (Tail) Area ---------- Max. = 50 per cent of wing.
Covering ---------- Plastic / Paper. NO Microfilm.
Propeller ---------- Wood Prop 7" Dia Max. * NEW RULE
Minimum Weight ----------(0.43 gms.) 0.015 Ounces.

Flying

Steering ---------- 4 Ten Second Steers. *
Attempt ----------Fifteen Seconds or More. *

* Special flying rules for very small rooms only! (Living room flying only)

GOOD FLYING & HAVE FUN.

Mike Colling
BMFA Indoor Technical Committee Chairman.

WHAT'S ON IN FREE FLIGHT ??

SCHEDUL ING OF INDOOR MEETS HAS BECOME MORE TENUOUS THAN EVER SINCE HURRICANE ANDREW. THE NEED FOR LARGE ROOMS IS UP, ALWAYS BE SURE TO CALL INDOOR HOT LINE 305-858-6363 BEFORE MEETS TO BE SURE THE MEET IS ON..CALL THE NIGHT BEFORE.

JAN 16. MIAMA LOCAL MEET. United Tile Warehouse NW 87th Ave. & NW 13th St.
NO-Cal, Dime Scale Mass launch...3iplanes.

FEB.13,14 MIAMA STATE MEET #3 U.S.COAST GUARD STATION Clearwater/St.Pete Airport Cat.II FAC Mass Launch..WW II

MARCH 7 MIAMA LOCAL MEET Tile Warehouse. No-Cal,Dime Scale. Golden age mass launch.

MARCH 20,21 MIAMA STATE MEET #4 MacDill AFB, Tampa,Fl. FAC MASS LAUNCH..MODERN

APRIL 17,18 MIAMA STATE MEET #5 MacDill AFB FAC MASS LAUNCH: WW I

APRIL 24,25 World Inter-Gnats Pistachio Proxy Meet YOUTH Fair FART VI CAT.I

MAY 22,23 AST MIAMA STATE MEET of 1992/93 Season. MacDill AFB,Tampa

MAY 30 LAST MIAMA LOCAL MEET...Tile Warehouse

AUG. 7 ANNUAL MILLARD WELLS GREAT FLA KEYS RISE OFF WATER MEET.

THE HANGAR PILOT

EDITOR: DR JOHN MARTIN, JR
2180 TIGERTAIL AVE MIAMI FLA.
33133





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