Best of THE HANGAR PILOT

Vol 4: 1991-92

COMPILED BY DAVE LINSTROM 1994

A 1993 READER SURVEY BY EDITOR DOC MARTIN SHOWS PREFERENCE FOR PLANS, SCALE DOCS, HOW-TO AND FUNKT FORMAT.: DOC'S LO-TECH DESKTOP PUBLISHING METHODS IN USE SINCE 1971!

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VOLUME UNBOUND TO EASE COPYING PLANS!

Best of the HANGAR PILOT

Vol 4: 1991-92

COVER 90% TRUE SIZE, ARTIST: DOC MARTIN AND FRANK MILLER'S BARNEY BAXTER STRIP

BARNEY BAXTER "FY-60 SKYRAIDER" DEADLY MILITARY FIGHTER FROM THIRTIES COMIC...

INIMITABLE BACK TO SCHOOL

THE HANGAR PILOT

MIAMA INDOOR AIRCRAFT MODEL ASSOCIATION MIAMA '85

20TH YEAR OF PUBLICATION- ENTERIAS NON ES OMNIBUS

ISSUE 141

- INTER-GNATS RESULTS
- RESULTS - MIAMA MEETS
- MORE MINI-STICK NEWS
- FIVE (5) NO-CAL TAILLESS PLANS!

AL BACKSTROM

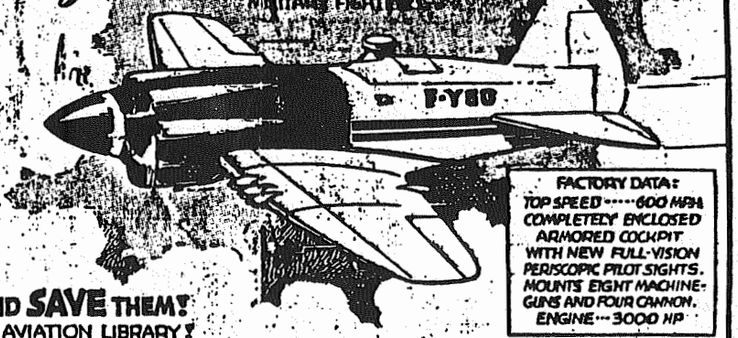
TAILLESS/FLYING WING ISSUE

HEY, KIDS!! HERE'S A NEW FEATURE SERIES!!

EACH WEEK BARNEY BAXTER WILL RELEASE A DRAWING OF ONE OF THE MANY NEW-TYPE SUPER-PLANES COMING FROM THE DRAFTING-BOARDS OF HIS FAMOUS AIRCRAFT FACTORY!!

CUT THEM OUT AND SAVE THEM! FILE THEM IN YOUR AVIATION LIBRARY! NOWHERE ELSE CAN YOU OBTAIN PICTURES OF THESE BAXTER CREATIONS!

The F-Y60 SKYRAIDER A DEADLY MILITARY FIGHTER



FACTORY DATA: TOP SPEED ..... 600 MPH COMPLETELY ENCLOSED ARMORED COCKPIT WITH NEW FULL-VISION PERISCOPIC PILOT SIGHTS. MOUNTS EIGHT MACHINE-GUNS AND FOUR CANNON. ENGINE ... 3000 HP

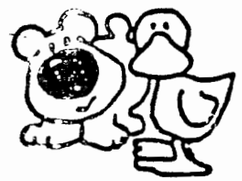
CONGRATULATIONS - WAYNE TRUIN FLA. STATE CHAMP!

600 MPH? SURE...

IT WAS HARD PICKING COVERS FOR VOL 4+5 FROM SO MANY GREAT EXAMPLES!

ISSUE 139
BEST OF HANGAR PILOT VOL 4 1991-92

FROM BRAINBUSTER NEWSLETTER



1 3/4"

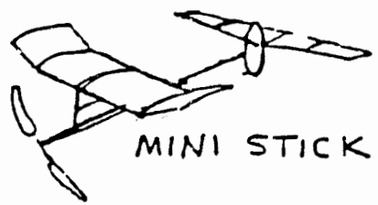
1 9/16"

7.0" PLAN SPAN

3/4" TIP DIHEDRAL

3/8"

REAR VIEW



MINI STICK

BRAINBUSTER FREE FLIGHT CLUB

5.0" 5.0"

NOTE

1. PROP .016 C GRAIN. FORM ON WINE BOTTLE
2. WT. = .014 OZ.
3. COVER WITH HARLEN FILM
4. BEST TIME = ~~6:40~~ 7:28

MICRON MINI-STICK
by TOM VALLEE
ORIGINATER OF EVENT

IN THIS ISSUE of Hangar Pilot we present 3 mini-stick plans that are useful for several purposes...(1) As an ideal demo model when you are trying to get an indoor site. (2) By reducing the span of these models to 7 inches they can be used for the Mini-Stick event described here that is especially fine for club meeting rooms, or your local school gym. No place is too small for indoor. Remember those SPEED rules published recently? Get to it, pilots in all those snowy places, and keep trying to get an indoor site.

TRY MINI-STICK ANYWHERE!

BUD TENNY'S INDOOR...

Column (Aug '90 Model Aviation) noted that Tom Vallee was promoting a slick "living room" Mini Stick unofficial event that serves excellently as a builder-flyer-trainer class for small flying sites—Tom holds contests in his own living room. Times have been on the order of 2:40 in that restricted site and when ceiling wasn't a problem like at the Mini Dome or at Lakehurst, times have reached an amazing 7:20!

Rules are simplicity itself: Max projected wing span 7 in.; max. chord 2 1/2 in.; max. length 10 in., with motor stick max. 5 in.; stab area not more than 50% of wing area; monoplane only; any covering except microfilm; all-wood prop. ~~MAX~~ 7"

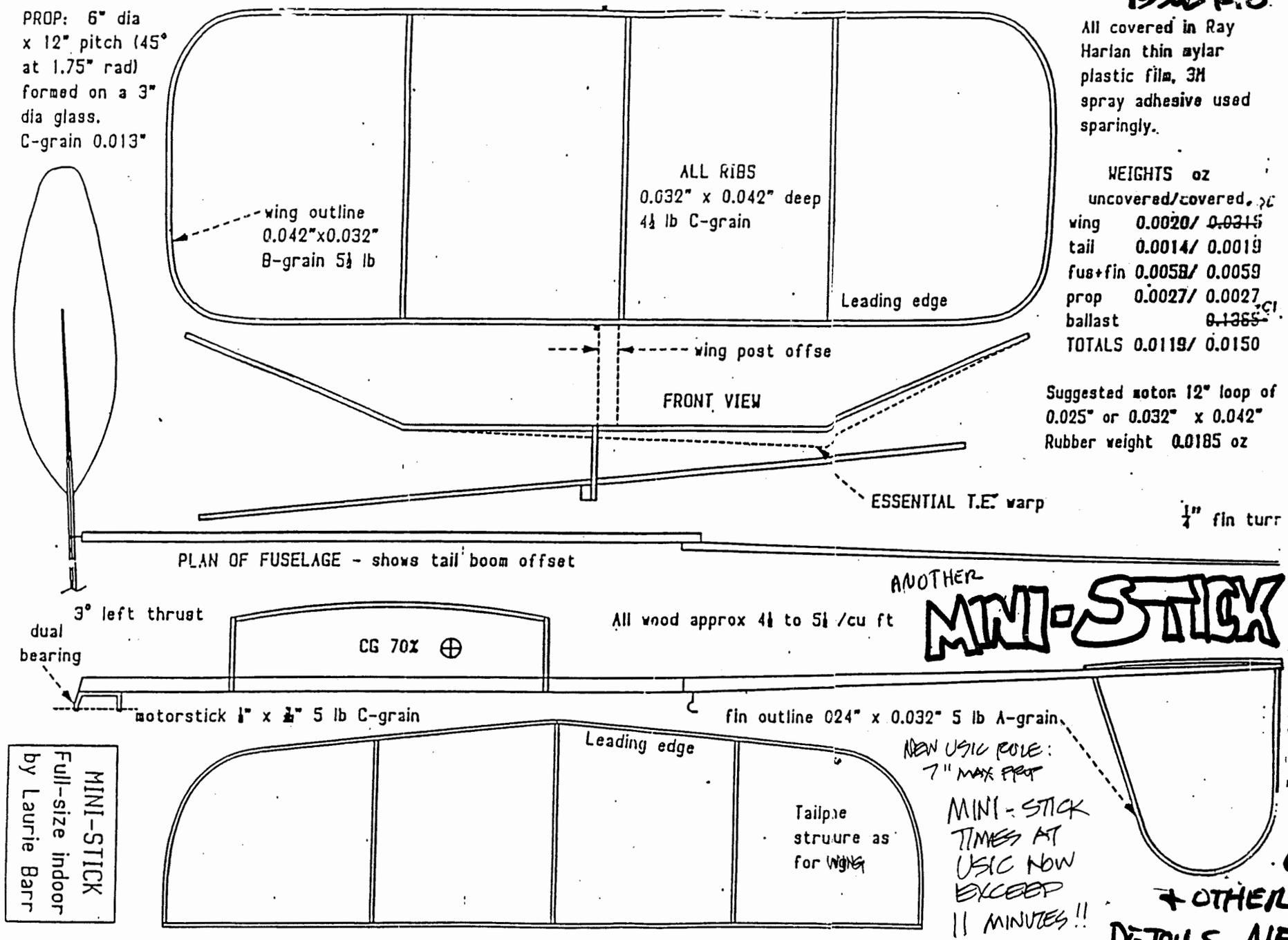
Fly using AMA rules for indoor, except three 10-second steers are permitted.

We saw one of these cuties perform at Johnson City--terrific! Simple to build and maintain, negligible cost and time to construct, and not least, all necessary paraphernalia and the model are easily transported in a shoe box.

Good enough! We'll try for mass-launch contests for Mini Sticks--1st place (only) wins 10' Pirelli rubber stripped to your desired size.

Tom Vallee broke the existing indoor helicopter record at the '90 USIC, so he knows what he's doing. Try one!

ISSUE 14.0



All covered in Ray Harlan thin aylar plastic film, 3M spray adhesive used sparingly.

WEIGHTS oz

	uncovered/covered, pc
wing	0.0020/ ~~0.0315~~
tail	0.0014/ 0.0019
fus+fin	0.0058/ 0.0059
prop	0.0027/ 0.0027
ballast	~~0.1365~~
TOTALS	0.0119/ 0.0150

Suggested motor 12" loop of 0.025" or 0.032" x 0.042"
Rubber weight 0.0185 oz

¼" fin turr

AN IMPORT MODEL:

From across the Atlantic, from Merr: Olde England comes this slick versic of the Mini-Stick. Designed by Lau Barr, well known English FAI flyer a UK team member, the rounded tips on l the surfaces will serve well in ou low-ceiling sites--providing no sha corners to catch and hold in the ce ng beams or the fan baskets.

The plans come from Tom Vallee, erst ile promoter of the Mini-Stick genus along with the following good advice "Use Barr's prop on your model & tir will double. Pusher models are more ulnerable to hang ups. Use a tracto Wind motor to limit then back off t s to point where model climbs slowly o beams and bounces gently off botto of girders with few hang ups."

Tom also tells us that Mike Colling, nother well known English indoor fly has organized a postal contest for t se Mini-Sticks with the thought that ome of our pilots might want to ente he forwarded Mike's address:

Mike Colling
403 Mossy Lea Road
Wrightington
Wigan WN6 9SB
Lancs., England

Burr STANTON 920 DARLEY DR LOUISVILLE KY 40...

Anyone interested should contact me d we'll arrange an INMARC entry whic requires an Official Results Form. A flights to be completed by March 31, 991 and entries must be received at e above address by April 10, 1991.

You fly in your local site and they ll correct your time for the ceiling eight of your site.

Entry is FREE! So let's see if somec can't hang one up for 30 or forty mi tes (!--WOW).

ANOTHER MINI-STICK

NEW USIC RULE: 7" MAX PROP

MINI-STICK TIMES AT USIC NOW EXCEED 11 MINUTES!!

BRING YOUR MINI-STICK TO JOHNSON CITY- MASS LAUNCH + OTHER EVENTS PLANNED. DETAILS NEXT ISSUE....!!

Best Rubber Break-In Method?

via Wingtips, Scott Smith, Ed.

Another thing that affects the life of a rubber motor is the initial break-in of a new motor. For the past year or so your editor has been using a stretch method instead of the previously used technique of winding a new motor a few times at low turns and gradually building up. The stretch method has the advantage that the rubber is not being twisted and therefore, not fraying the edges of the strands. Also, I find the stretch method to be easier than the multiple-winding approach.

To break in a motor, put one end over a dowel held in a vise or over a doorknob, etc., and stretch it out to three times its relaxed length for two minutes. Let it rest for 10 or 15 minutes. Then stretch again, this time to about 4-1/2 times its relaxed length and hold for five minutes. That's all there is to it.



The Postal Service is honoring the first female pilot, Harriet Quimby, with an airmail stamp.

First licensed woman pilot is honored

The design, created by Howard Koslow of East Norwich, N.Y., depicts Quimby and her Bleriot aircraft. She was a journalist and a drama critic as well as the first American woman to receive a pilot's license and the first woman to fly the English Channel solo.

HOUSEFLY MINI STICK

A PARLOR MITE TYPE INDOOR MODEL
FULL SCALE 5/08/90 BY: C.H.
MOTOR STICK: 3/16" X 3/32" BALSA X 5"
TAIL BOOM: 3/32" SQ. TAPERED X 3 1/4"

MOUNT WING AT
50% C.G.
WING MTG. POSTS GO IN
PAPER SOCKETS

FRONT BEARING: 1/16" DIA. ALUM TUBE
REAR HOOK: .020 DIA. MUSIC WIRE
BIND TO MOTOR STICK WITH THREAD & GLUE

STAB & RUDDER CONST: 1/32" SQ. BALSA

A CARL HEDLEY PLAN

PROP BLANK
CARVE FROM LIGHT BALSA
3 3/4" DIA. X 2 1/2" PITCH

WING CONSTRUCTION:
L.E. & T.E.: 1/20" SQ. BALSA
RIBS: 1/32" BALSA

WING DIHEDRAL:
5/8" UNDER EACH TIP
ADD LIBERAL AMOUNT
OF POSITIVE
INCIDENCE AT INSIDE
WINGTIP

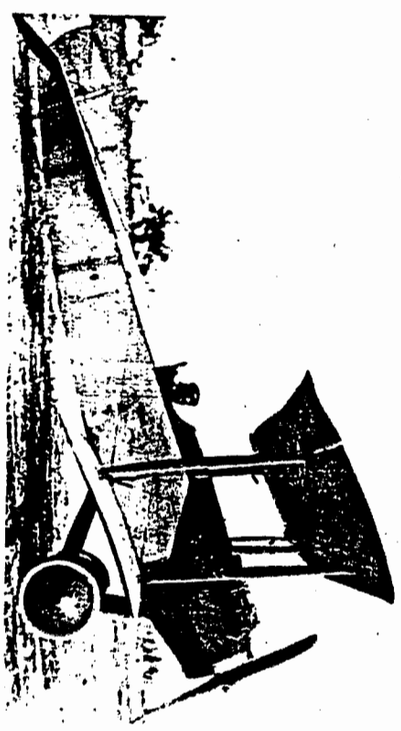
BEAT THE LOW
CEILING BLUES
FLY MINI-STICK
PISTACHIO
NO-CAL
RUBBER SPEED

COVER WITH VERY LIGHT TISSUE
TARGET WT.: 1.5 g.
THE STEALTH VERSION IS COVERED
IN BLACK TISSUE. (FLY IT WITH
THE LIGHTS OUT.)

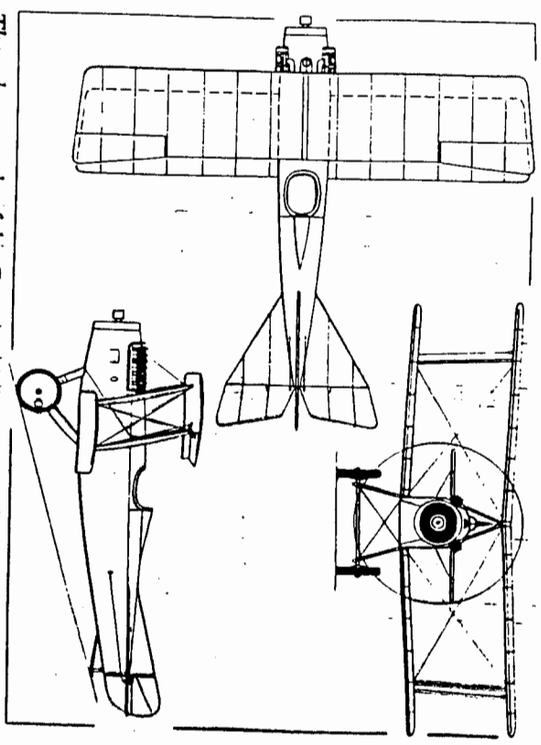
ISSUE 139

CURTISS S-1 USA

Known contemporaneously also as the 'Speed Scout', the S-1 represented the first attempt on the part of the Curtiss Aeroplane Company to produce a single-seat fighting scout. Of thoroughly conventional construction, the S-1 represented the smallest possible aircraft that could be designed around a 90 hp water-cooled eight-cylinder Vee Curtiss OX engine. A single-bay biplane spanning only 20 ft (6.10 m), the S-1 was flown in 1916 and demonstrated unsuccessfully to the US Army. A level speed of 100 mph (161 km/h) was attained but the aircraft obviously possessed insufficient wing area. The span of the upper wing was accordingly increased and V-type struts were introduced, but the characteristics of the modified S-1 did not display sufficient improvement to warrant further development of the design and the type was abandoned in favo[illegible]



The sole example of the Curtiss S-1 (above and below) was the precursor of the long line of Curtiss fighting biplanes.

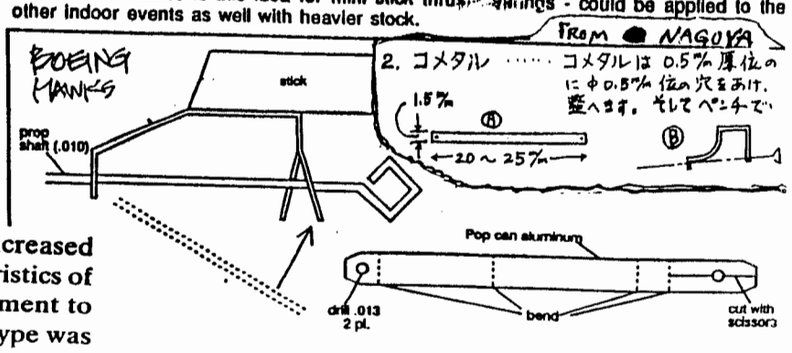


NANCY BEITZ BUILT THIS FOR THE 1988 JOHNSON CITY CHAMPS.

REMEMBER THE FAMOUS RED HARED PILOT FIGURE?

ISSUE 134

From Gene Stubbs is this idea for mini stick thrust [illegible]ings - could be applied to the other indoor events as well with heavier stock.



ANNOUNCING MIAMA'S ISSUE 140

H.K. WEISS CONTESTS:

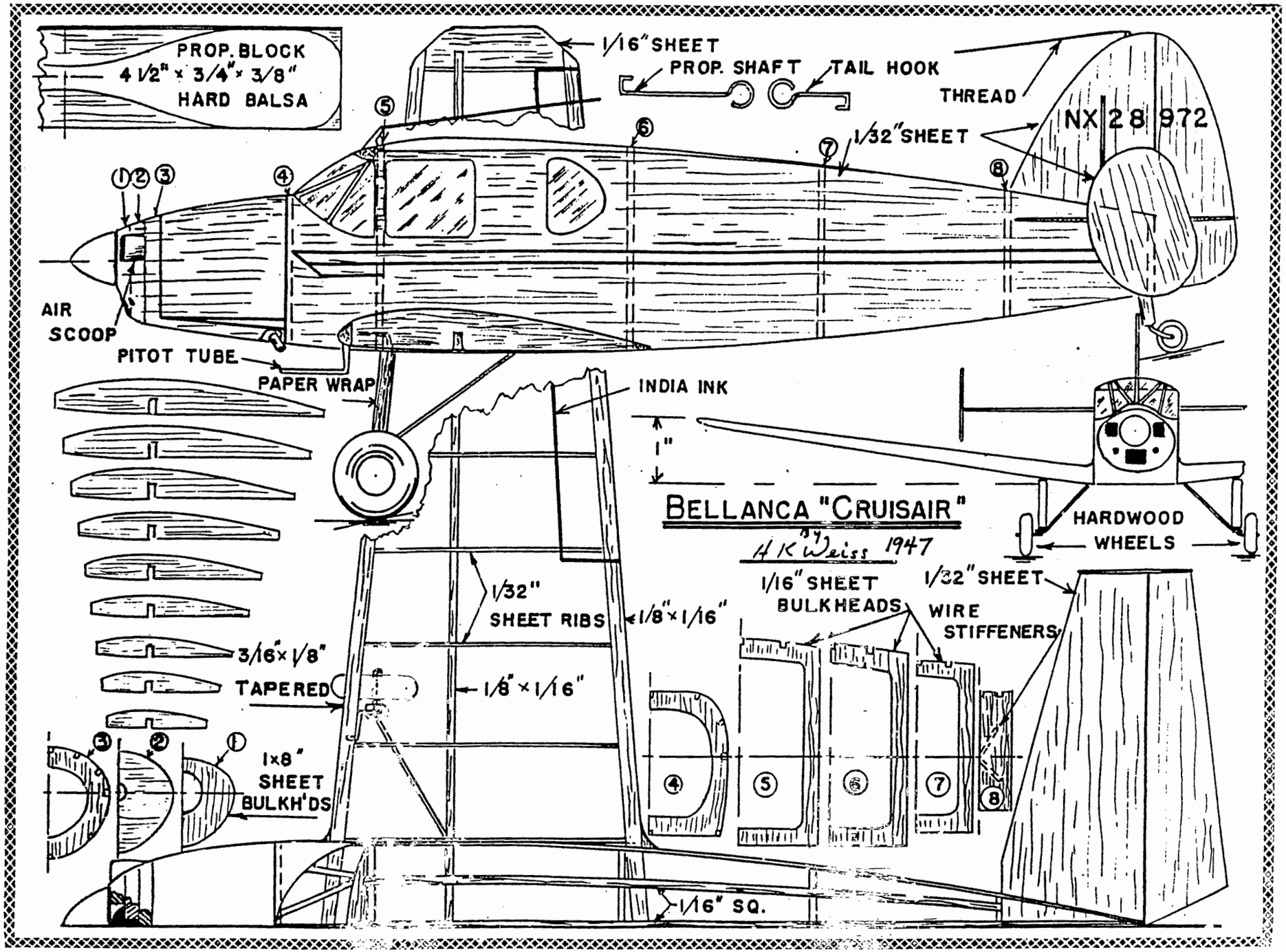
MIAMA is honoring one of the original free flight rubber scale modelers, and you are invited to send for the plans and get in on the fun. Earl Stahl, Paul Lindberg, and Henry Struck have had their scale models revived and flown at various meets.

Now it is time to rediscover MIAMA member.. TA!, TA!..

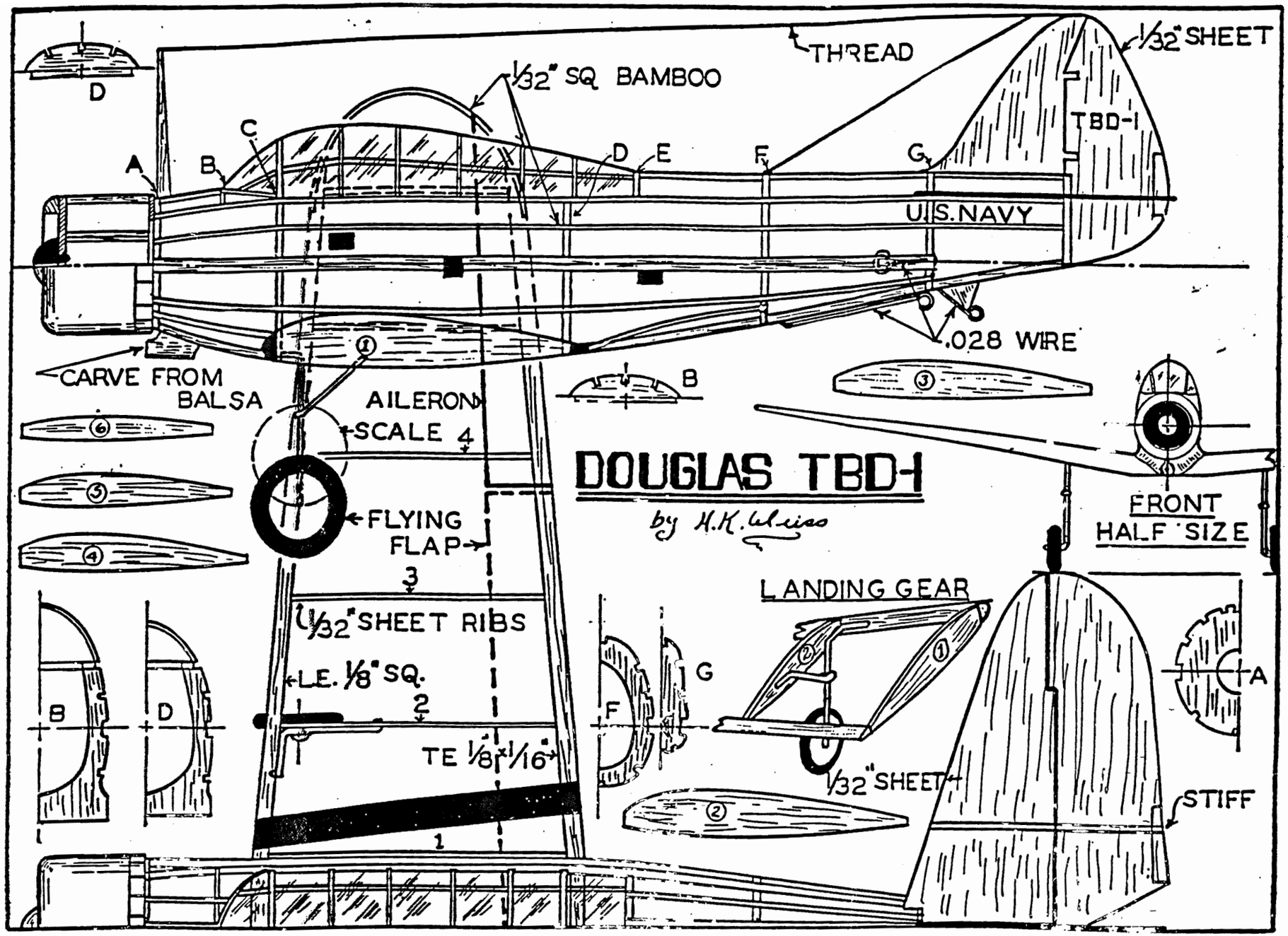
H.K. WEISS!

Herb always seemed to have a plan in the model mags of the late 30's and 40's. About 5 years ago Herb returned to modeling and is active again experimenting with gears, projecting 3-views from photos, and building vintage peanut scale models. Two of his plans are in this issue. All others are available..

When you get your minute model finished you can:
(1) Enter it in KIT PLAN at Johnson City for MIAMA prize
(2) Enter it in the MIAMA Postal meet. Send in your



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Building the Douglas Torpedo Bomber

(Continued from page 21)

and can be obtained at any model counter.

The plan shows the correct number of cockpit formers. Some may be omitted for simplicity. Make the formers from 1/32" square bamboo.

Assembly and Covering

Sand the fuselage and wing carefully so that there will be no projections to spoil the covering. Cover the model carefully with white tissue, using small strips on the curved parts of the fuselage. The landing gear is attached to the wing before covering, and the tissue is cut to fit. All wire parts are .028 wire.

Spray the model lightly with water, and when it is dry, sand off the fuzz which will appear at the leading and trailing edges of the wing and at sharp corners on the fuselage. Give the model one coat of clear dope which has been mixed with thinner in about a half to half ratio. Dope the cowl and other parts, but *do not dope the tail surfaces.* Sand any roughness which may appear, and then cement the tail surfaces in place. To insert the stabilizer, slit the tail post with a razor, push the stabilizer into position and cement it, then re-cement the tail post.

Add as much detail as may be desired. The model has a standard navy insignia, including stars on top and bottom of each wing tip.

Propeller

Carve the propeller from hard balsa, using a block 4-3/4" x 7/8" x 1/2", or use any medium pitch prop of that size that you may have. *Do not use a high pitch prop,* for the torque will make the model difficult to control laterally.

Flying

The model should balance just about right if hardwood wheels are used. Test it by gliding it. If it stalls, check the tail attachment, and if there is any perceptible negative incidence cut the stabilizer loose and readjust it to zero incidence. If the model still stalls, sand the tail surfaces. Add weight to the nose only as a last resort. If the model dives warp

MODEL AIRPLANE NEWS

...e elevators up slightly or use lighter ...heels.

If the model spiral dives under power, ...arp the trailing edge of the inside wing ...own slightly.

Use two strands of 1/8" flat rubber, ...lubricated, with about a half inch of slack. For long flights after the model is adjusted, use a winder.

SEE NEXT SHEET FOR START OF 1947 MAN ARTICLE

ANOTHER IN THE H.K. WEISS SERIES.
SEND IN YOUR TIMES TO MIAMA BY THE END OF 1991

BUILD LIGHT - CAN YOU EXCEED THE ORIGINAL "25 SECONDS"?

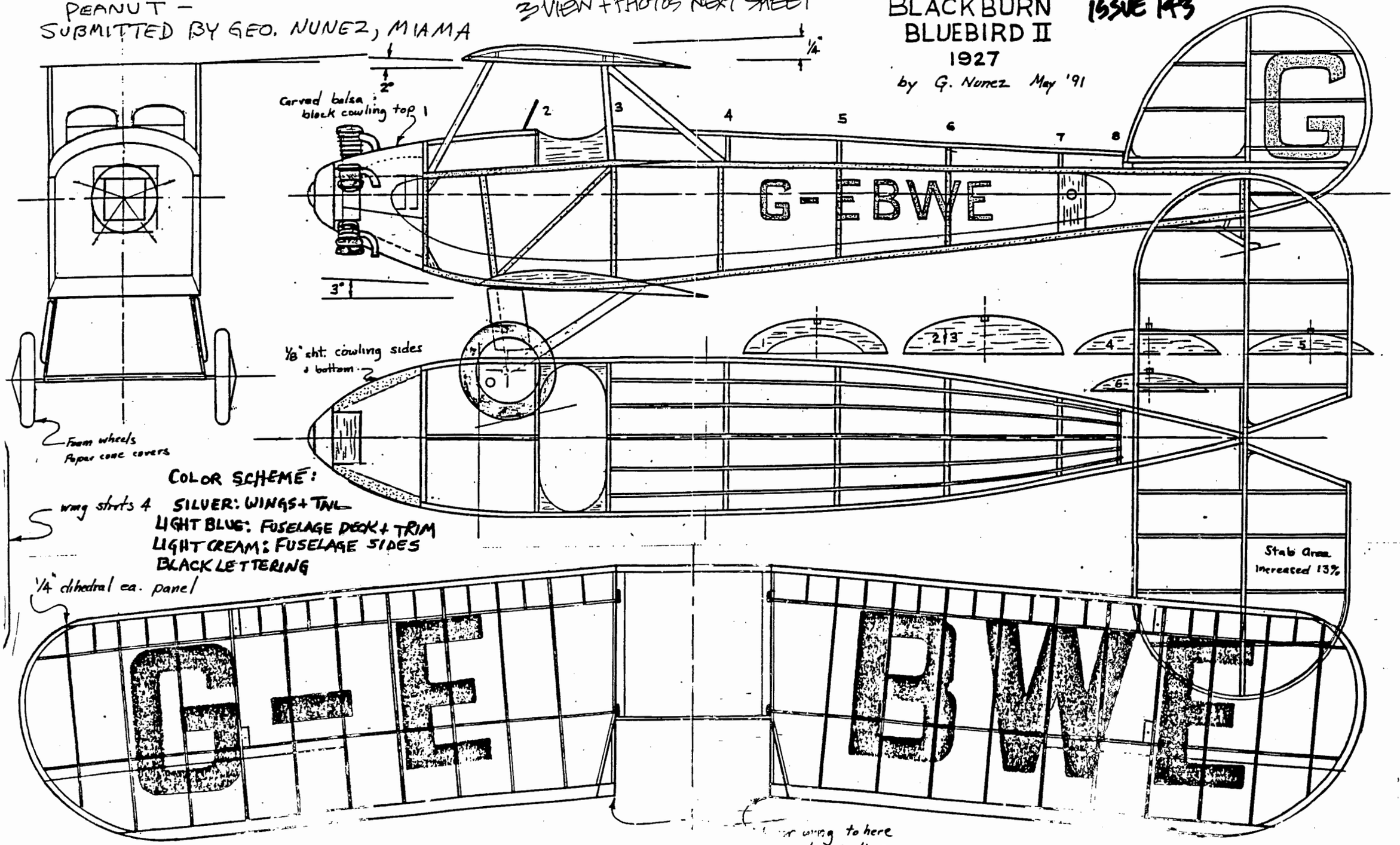
SO LONG, DR SEUSS - WE'LL BE SEEING YOU IN SOLLA SOLLEW!

PEANUT –
SUBMITTED BY GEO. NUNEZ, MIAMA

3 VIEW + PHOTOS NEXT SHEET

BLACKBURN BLUEBIRD II
1927
by G. Nunez May '91

ISSUE 143

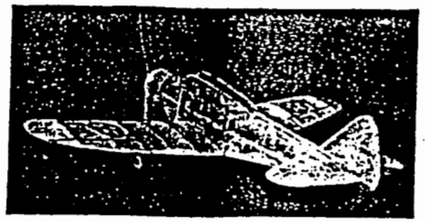


COLOR SCHEME:
SILVER: WINGS + TAIL
LIGHT BLUE: FUSELAGE DECK + TRIM
LIGHT CREAM: FUSELAGE SIDES
BLACK LETTERING

ISSUE 142



The completed model in full flight shows great steadiness



Intriguing details give a realistic appearance

BUILDING THE DOUGLAS TORPEDO BOMBER

By HERBERT K. WEISS

A Realistic Model of a New U. S. Navy Plane—Fine Performance Is Combined With Simple Construction

ONE of the latest of the navy's sleek orpedo planes is the Douglas TBD-1. Flying under a double classification, the BD-1 carries either bombs or a torpedo t an estimated top speed of 235 m.p.h. ince the ship will be used aboard car- iers, space is an important factor, and ie wings of the TBD-1 fold up and in n themselves from a chord about mid- ay to the tip. The experimental ver- ion of the torpedo-bomber had a straight ockpit housing, but the accepted version as had the housing humped, probably o accommodate the directional loop of radio antenna. The engine is a Twin Wasp of 850 horsepower.

Because of the comparatively small ize of the model, there are certain points hich must be stressed in construction. hey are as follows:

Sand the fuzz off all alsa used in the model efore using it; the ame will be lighter, eaner and stronger. se plenty of cement; e small additional eight is negligible ainst the gain in iggedness and free- om from warping. eep the tail of the odel light; every eight you put on the ose for balance will ean just that much ore weight that the ip has to carry, and it's a small ship! nd remember, a little mistake on a all ship is equivalent to a pretty big ie on a large model.

Some model builders think that a small plane will not fly well. This little ship will explode such an opinion. It has been flown repeatedly for more than 25 seconds indoors and outdoors; one of the few small models with a big performance.

Wings and Tail

Make the wing first, as it's used as a for the fuselage. The frame can be sembled on the plan, if the left wing nel is traced on another sheet of pa- r and pinned down in its proper place. ie wing is built in one piece. Put axed paper over the plan, pin the lead- g and trailing edge in place, and add e ribs and wing tip. Use plenty of ment. The bamboo for the wing tip n be bent over a flame, or, as it is very in, it will bend easily without heating d can be tied in place with silk thread while the cement is drying.

When the frame is dry remove it from the waxed paper and with a razor blade cut loose surplus cement and any waxed paper which may have adhered. Crack the spars just outside rib I and give the wing 3/4" dihedral at each tip. Re-cement the spars, and when the cement is dry shape the leading and trailing edge to airfoil shape with a razor and sandpaper.

Trace the tail surfaces on 1/32" sheet balsa and cut them out. The stabilizer is made in one piece. Sand the pieces smooth. Cement the 1/32 x 1/16" stiffeners on top of each side of the stabilizer.



It has a comparatively large "prop"

Fuselage

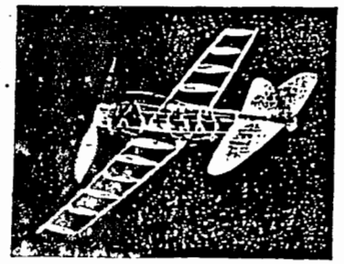
Cut two halves of each bulkhead from 1/16" sheet. As the fuselage must stand handling do *not* substitute 1/32" sheet. Cement the halves together, using small lengths of 1/32" square bamboo across the grain to stiffen the assembled bulkhead crossways at the joint. Cement bulkheads C and D to the wing center section in the position shown on the plan. Now cement the 1/8 x 1/16" main side stringers to these bulkheads, and add the remaining bulkheads to the 1/8 x 1/16" stringers, being careful to keep the bulkheads lined up correctly. Complete the fuselage frame by adding the 1/32" square bamboo stringers, formers B and D, and the 1/16" square balsa top and bottom stringers. The tail post is 1/16 x 1/8" balsa.

Cowl sections are round, so that the diameter of the cowl formers can be taken from the plan, and the sections drawn on sheet balsa with a dime compass. Cover the cowl with 1/32" sheet balsa, and sand the whole cowl after assembly until it is smooth. A small hard-wood nose plug is used

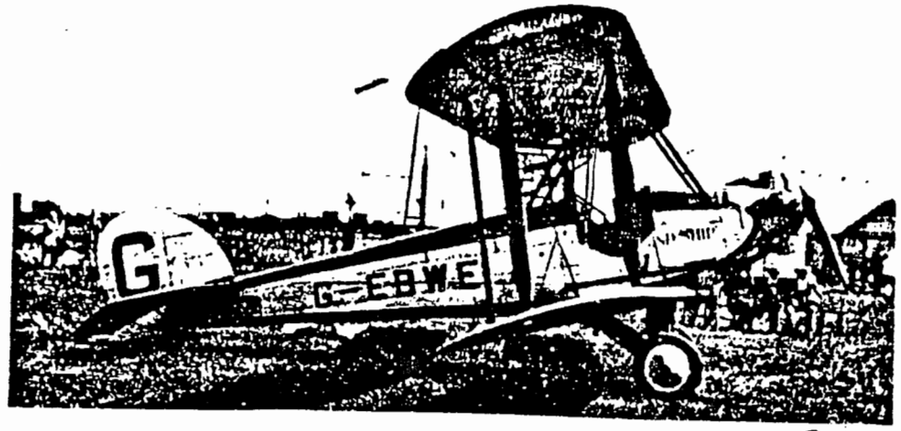
(Continued on page 51)



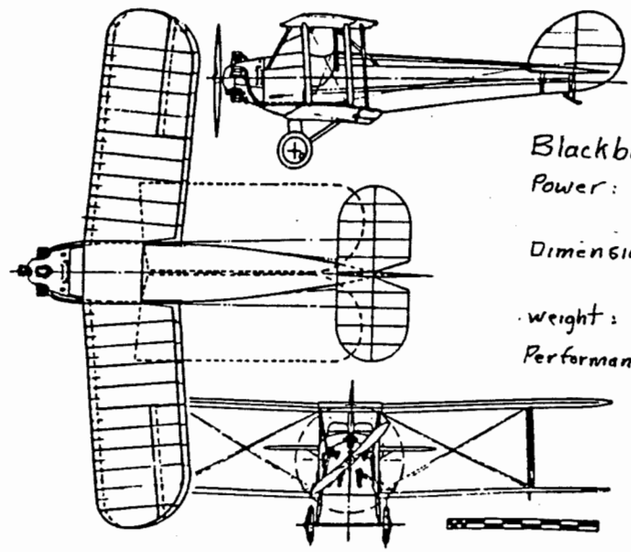
The framework is well designed



It is simple and easy to build



ISSUE 143



Blackburn Blvebird II

Power: 80 hp A.S. Genet 5 cyl. radial

Dimensions: span 28 ft. Length 22 ½ ft.

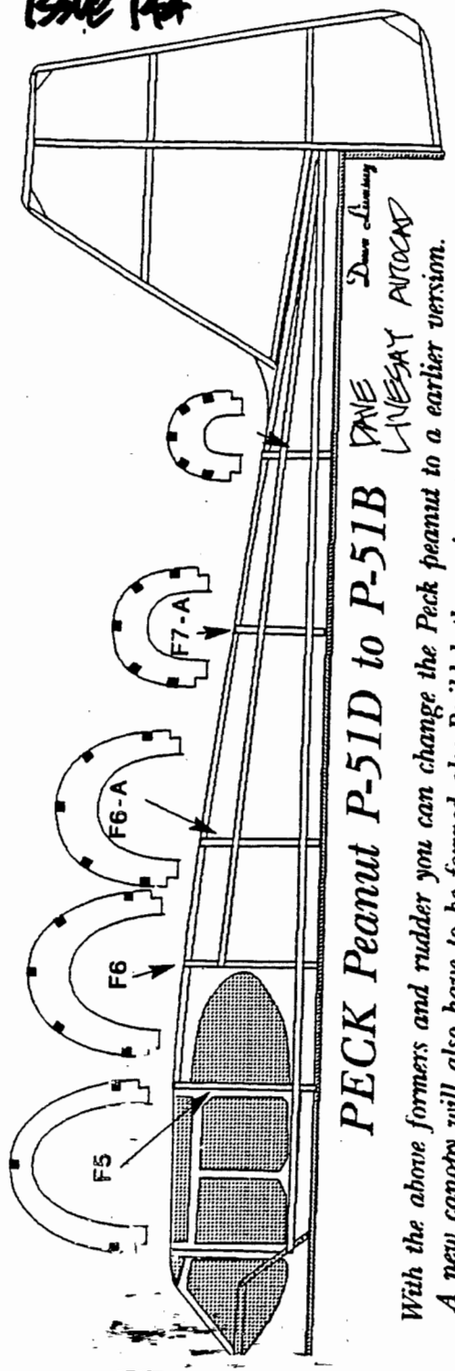
weight: 9161b empty

Performance: 88 mph max 75 mph cruise 11,000 ft. ceiling 300 mi range

Ref: Blackburn Aircraft

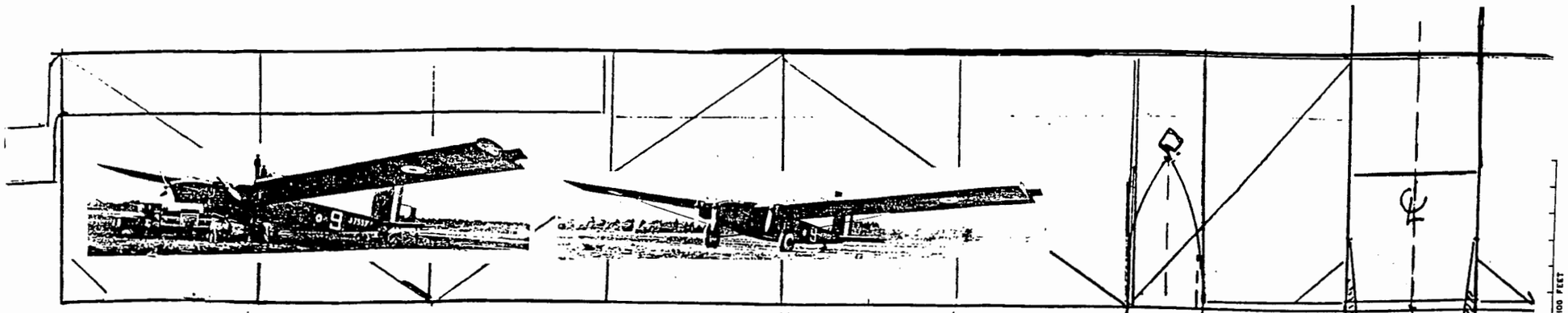


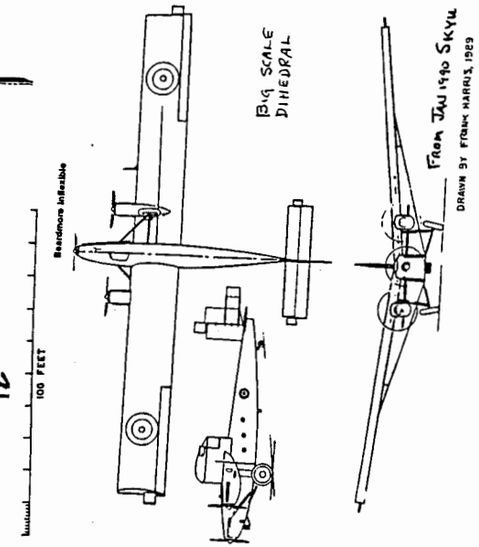
ISSUE 144



PECK Peanut P-51D to P-51B Dave Lindsay Pane Lindsay Artcraft

With the above formers and rudder you can change the Peck peanut to a earlier version. A new canopy will also have to be formed also. Build both versions peanuts are easy to build and cheap.





SCALE DIHEDRAL
1" EACH TIP

THE 1928 BEARDMORE INFLEXIBLE

a NEW RULER (AMA) PEANUT - 9" OAL, 20" SPAN
A CROWD (CLOUD) PLEASER! BY DOC MARTIN

All props turn counterclockwise
Power: 14" loop 1/16" - Main (.062)
2 loops, 8", Outboard motors of 1/32" (.032)
1500 turns = 45 sec.

4 3/8 MIDWEST PROP
2 1/4 x PLAIN PROP - CUT DOWN SLEEK STREAK OR MAKE 2

1/20" Sheet

REAR HOOK FOR OUTBOARD MOTOR

Wire .020

1/20 Sheet gussel

Engine nacelles carved from foam, as are wheels. 1/16" Alum. tube thrust bearings. Use white glue. Make use of 3-view on next page for much of construction + details.

{ All aileron, rudder, + elevator balance sections cut from 1/32" sheet or thin foam.

Let us know how YOU achieved the "KHAKI FINISH" (Please!) Add the roundels, rudder stripes + the "g J7557" as seen on the photo for a snappy finish. The brace beneath the wing is NOT a strut but a ship's hawser found necessary to keep the INFLEXIBLE from being Too FLEXIBLE!

ISSUE 145

MY COCONUT VERSION OF THIS HAS MANAGED MINUTE + ONE HALF INDOORS - NOT SO HOT OUTSIDE

EL TOPPE MNO **WEIGHT OF BALSA SHEETS IN GRAMS** ISSUE 146

SIZE			DENSITY IN LBS/CUBIC FT							
T	L	W	2	4	6	8	10	12	14	16
1/32	36	2	1.18	2.36	3.54	4.72	5.91	7.09	8.27	9.45
		3	1.77	3.54	5.32	7.09	8.86	10.6	12.4	14.2
		4	2.36	4.72	7.09	9.45	11.8	14.2	16.5	18.9
	48	2	1.57	3.15	4.72	6.30	7.87	9.45	11.0	12.6
		3	2.36	4.72	7.09	9.45	11.8	14.2	16.5	18.9
		4	3.15	6.30	9.45	12.6	15.7	18.9	22.1	25.2
1/16	36	2	2.36	4.72	7.09	9.45	11.8	14.2	16.5	18.9
		3	3.54	7.09	10.6	14.2	17.7	21.3	24.8	28.3
		4	4.72	9.45	14.2	18.9	23.6	28.3	33.1	37.8
	48	2	3.15	6.30	9.45	12.6	15.7	18.9	22.0	25.2
		3	4.73	9.45	14.2	18.9	23.6	28.3	33.1	37.8
		4	6.30	12.6	18.9	25.2	31.5	37.8	44.1	50.4
3/32	36	2	3.54	7.08	10.4	14.2	17.7	21.3	24.8	28.3
		3	5.31	10.6	15.9	21.3	26.6	31.9	37.2	42.5
		4	7.08	14.2	21.2	28.3	35.4	42.5	49.5	56.6
	48	2	4.72	9.94	14.9	19.9	24.9	29.8	34.8	39.8
		3	7.08	14.2	21.3	28.3	35.4	42.5	49.6	56.7
		4	9.44	18.9	28.3	37.8	47.2	56.7	66.1	75.6
1/8	36	2	4.72	9.45	14.2	18.9	23.6	28.3	33.1	37.8
		3	7.09	14.2	21.3	28.4	35.4	42.5	49.6	56.7
		4	9.45	18.9	28.4	37.8	47.3	56.7	66.2	75.6
	48	2	6.30	12.6	18.9	25.2	31.5	37.8	44.1	50.4
		3	9.45	18.9	28.4	37.8	47.3	56.7	66.2	75.6
		4	12.6	25.2	37.8	50.4	63.0	75.6	88.2	101.
3/16	36	2	7.09	14.2	21.3	28.3	35.4	42.5	49.6	56.7
		3	10.6	21.3	31.9	42.5	53.2	63.8	74.4	85.0
		4	14.2	28.4	42.5	56.7	70.9	85.1	99.2	113.
	48	2	9.45	18.9	28.4	37.8	47.3	56.7	66.2	75.6
		3	14.2	28.4	42.5	56.7	70.9	85.0	99.2	113.
		4	18.9	37.8	56.7	75.6	94.5	113.	132.	151.
1/4	36	2	9.50	18.9	28.4	37.8	47.3	56.7	66.2	75.6
		3	14.2	28.4	42.5	56.7	70.9	85.0	99.2	113.
		4	18.9	37.8	56.7	75.6	94.5	113.	132.	151.
	48	2	12.6	25.2	37.8	50.4	63.0	75.6	88.2	100.
		3	18.9	37.8	56.7	75.6	94.5	113.	132.	151.
		4	25.2	50.4	75.6	101.	126.	151.	178.	206.

ISSUE 147

PLANES WORTH MODELING

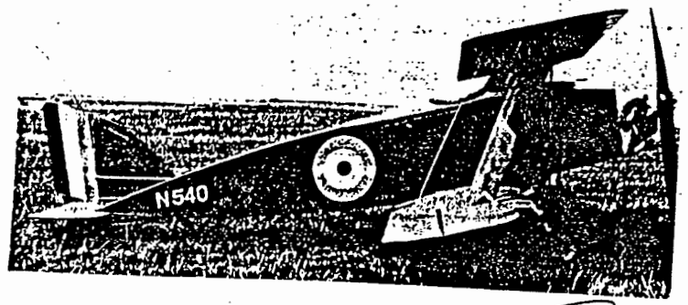
WORLD WAR 1 aeroplanes, INC.

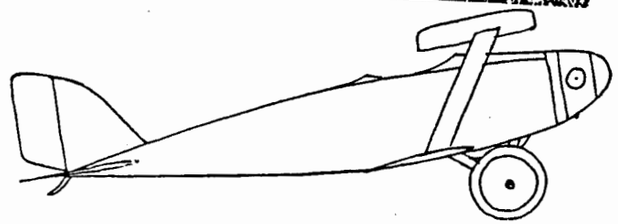
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EASTCHURCH KITTEN

In #119:40 we ran a photo of the partly-finished fuselage of the Sneesby Port Victoria PV.8- known as the Eastchurch Kitten- repro. It is being built from dwgs done by John Sizer (69 The Avenue, Lowestoft, E Suffolk NR33 7LH, UK), who sent us a copy, reprinted on the next page. The original machine was designed not by the Port Victoria staff, but by Lt G H Millar of the Experimental Flight at Eastchurch, under Sqdn Cdr Harry Busteed; it was to have used a 45 hp geared Gnat, which turned out not to be available, so a 35 hp ungeared Gnat was used instead. It appeared originally with no fixed tailplane, but proved longitudinally unstable, and the necessary stabilizer was fitted. The landing gear was unsprung, depending only on the large diameter tires; the lower ends of the main flying wires ran down directly to the axle-tips. The machine proved quite effective- it was sometimes referred to, erroneously, as the Sopwith Kitten

John Sizer writes of his dwg: The Kitten dwg was done with far from accurate information, and can only be regarded as tentative with a capital T. Most areas of construction await more exact definition, and I am hoping this will be forthccoming as more and more folk get to know about one's efforts. For example, I haven't the faintest idea what the bulge under the forward fuselage may be. A fuel tank? (Thus implying a header tank in the top centre-section?) I think one can guess a fair amount of wing structure, but all exact detail would be preferred.



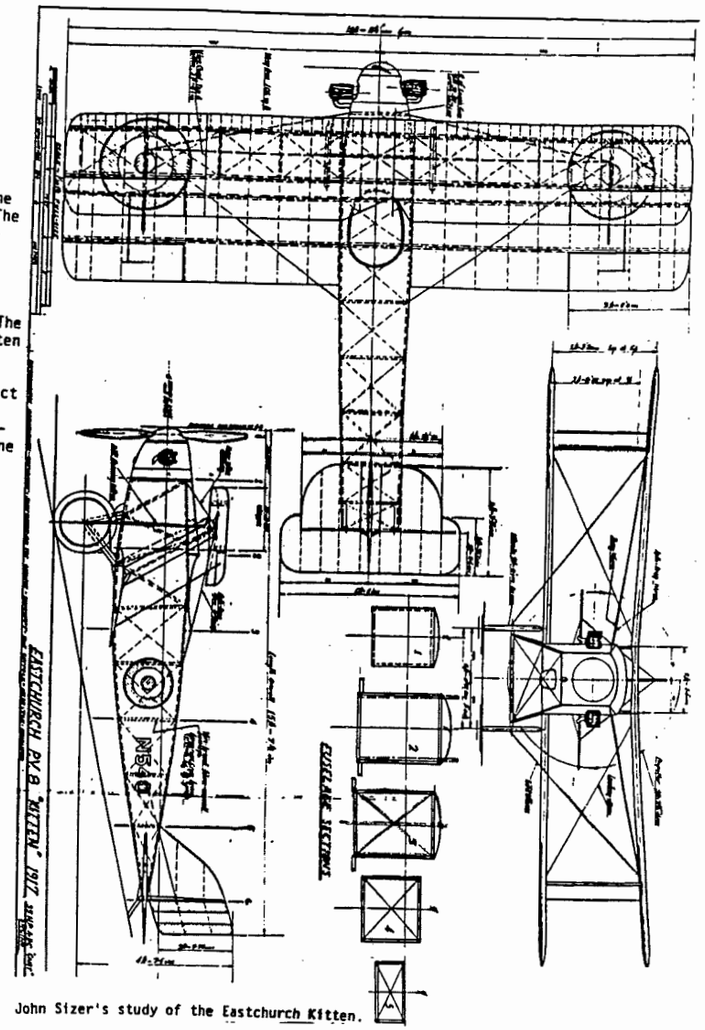


The photo above shows the Kitten with no stabilizer; serial number moved forward with later tail. (:Imperial War Museum)

The drawing below it is reduced and reversed from John's dwg on the following page. There seem only very slight discrepancies.

Photo (R) from Ray Rimell's new book WORLD WAR I IN THE AIR, reviewed elsewhere this issue; fr Bruce/Leslie Collection.





John Sizer's study of the Eastchurch Kitten.

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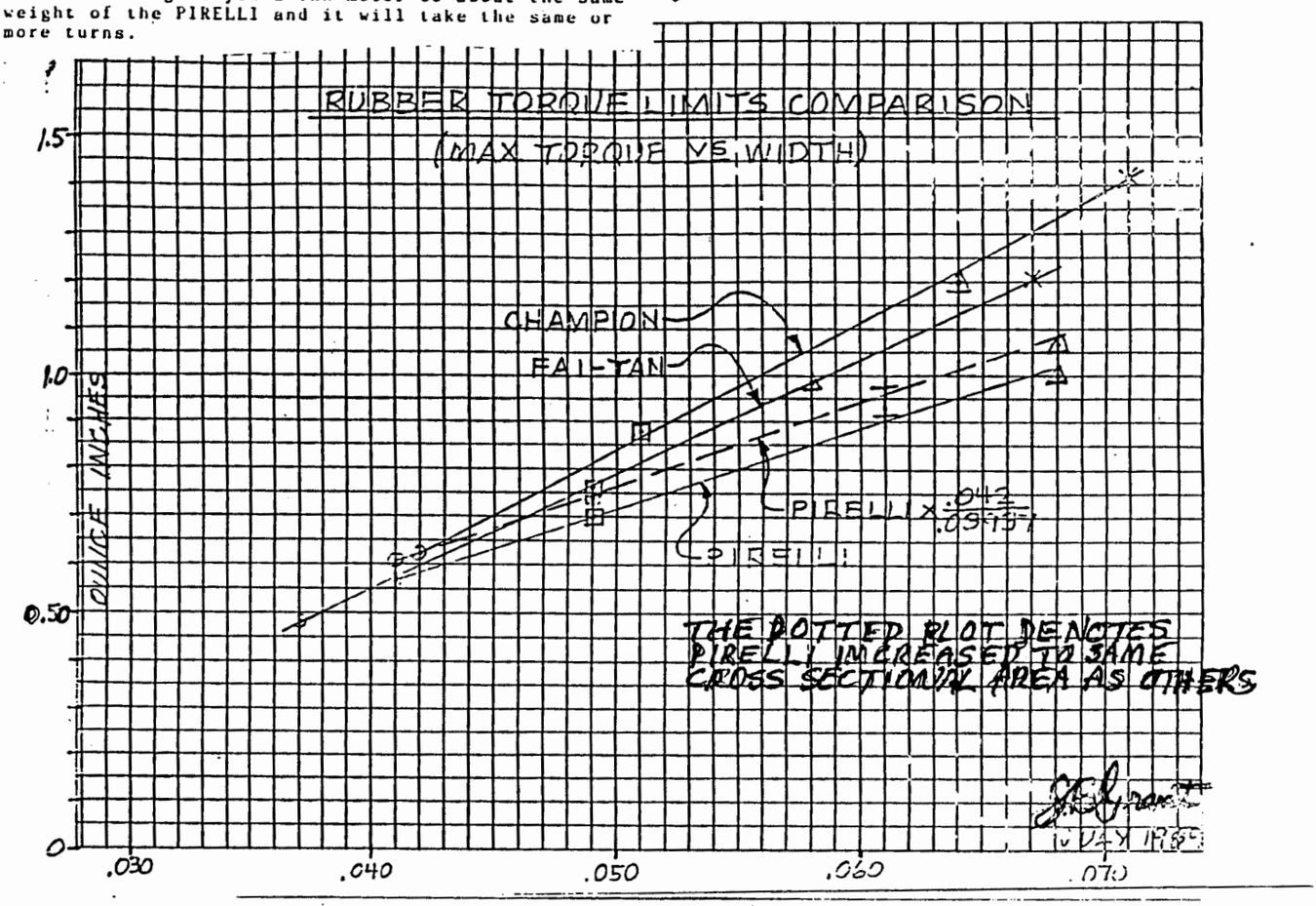
THE FAI TAN EQUATION

The WAY to use TAN RUBBER.

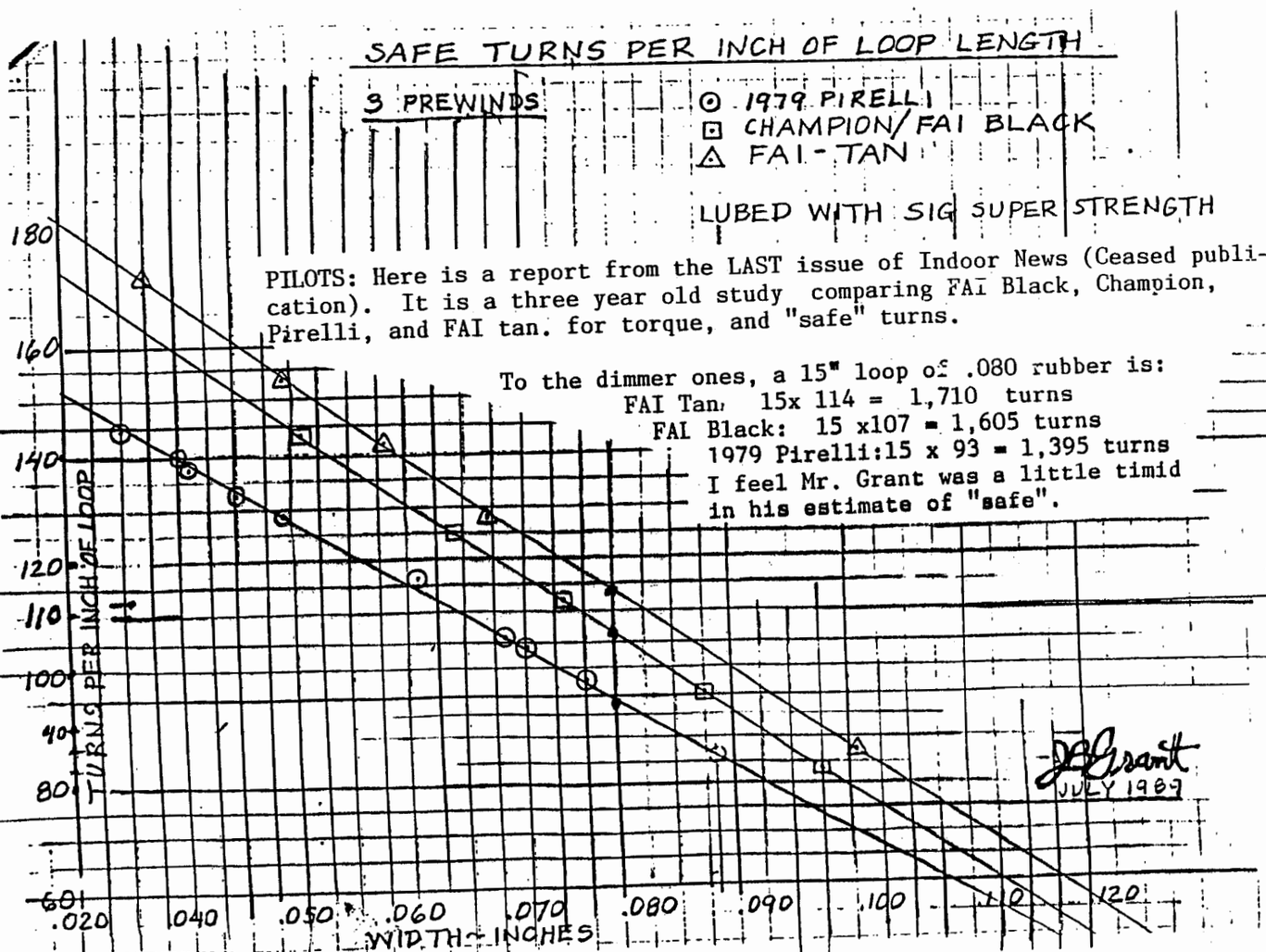
One of our local engineer modellers has come up with a formula to compare TAN to PIRELLI.

1. Cut the TAN 18% wider or heavier per unit length.
2. Make motor lenght 85% of PIRELLI motor.

This will give you a TAN motor of about the same weight of the PIRELLI and it will take the same or more turns.



ISSUE 49



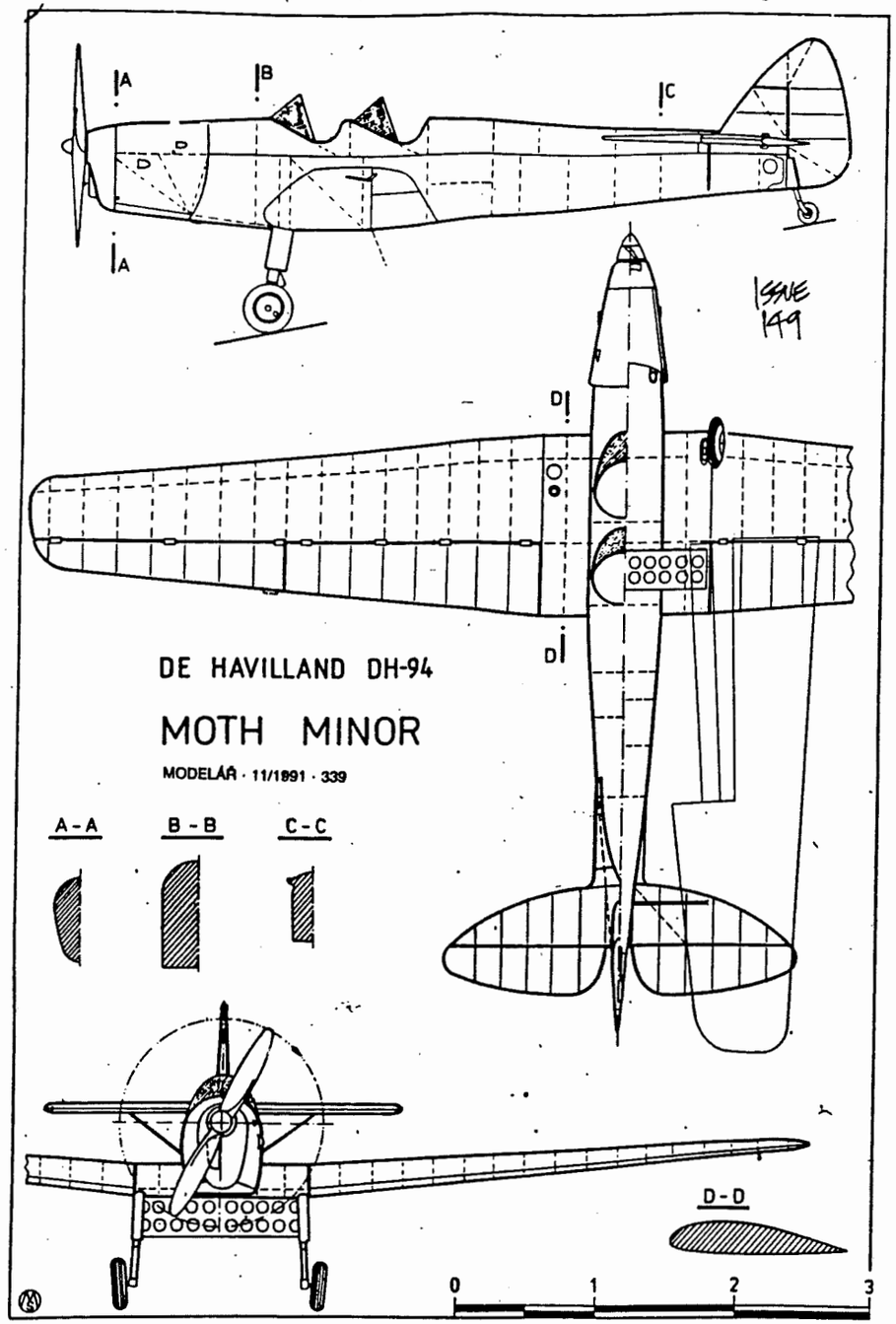
PILOTS: Here is a report from the LAST issue of Indoor News (Ceased publication). It is a three year old study comparing FAI Black, Champion, Pirelli, and FAI tan. for torque, and "safe" turns.

To the dimmer ones, a 15" loop of .080 rubber is:

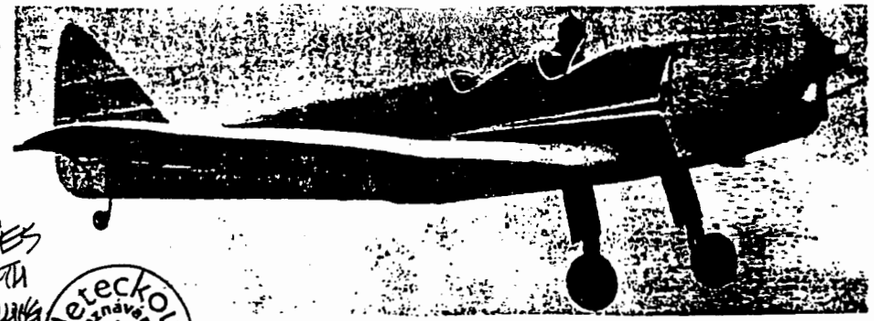
FAI Tan: 15x 114 = 1,710 turns
FAI Black: 15 x107 = 1,605 turns
1979 Pirelli:15 x 93 = 1,395 turns

I feel Mr. Grant was a little timid in his estimate of "safe".

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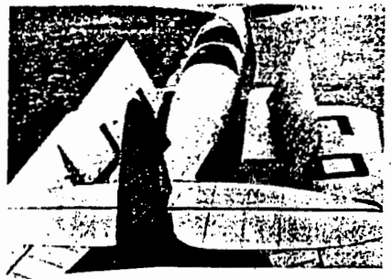
FROM MODELAR



PLANES WORTH MODELING ISSUE 149

letectvo poznáváme techniku

De Havilland Moth Minor



TECHNICKÝ POPIS:

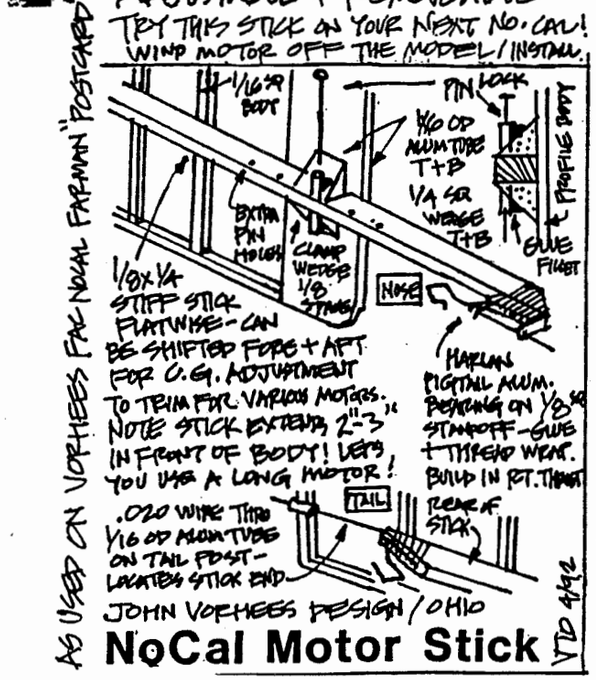
De Havilland DH 94 Moth Minor byl jednokřídlý jednomotorový dvoumístný jednoplošník s pevným podvozkem, určený pro základní i pokračovací výcvik sportovních pilotů.

Nosná plocha. Základem konstrukce překřížkou potaženého samonosného křídla o vzepětí 6° a úhlu nastavení 2° byly dva průběžné smrkové nosníky s pásnicemi z třívrstvé březové překližky ztužené pásky bakelitu, na něž byla navlečena a zalepena vyléhčená smrková žebra. Vnější části křídla, navazující na s trupem vcelku stavěný krátký centroplán, bylo možné po vychýlení vztlakových klapek snadno sklopit podle trupu, což usnadňovalo hangárování letadla. Po sklopení křídla byl v kořeni levé poloviny přístupný otvor, používaný buď k uložení zavazadel, nebo k instalaci dalších palubních přístrojů.

— ovládány podtlakovým řízení. Pneumatiky Dunlop bez vnitřní měly rozměry 4 x 6" (121,9 x 243,8 mm). Odpružené volně otočné ostruhové kolo bylo zajistitelné do přímého směru.

Pohonná jednotka. Čtyřválcový invertní řadový vzduchem chlazený motor Gipsy Minor o zdvihovém objemu 3754 cm³ a výkonu 67 kW byl umístěn na trubkové konstrukci se speciálně vyvinutými pryžovými silentbloky. Hlavní palivová nádrž o objemu 59 litrů byla v kořeni levé poloviny křídla; další nádrž stejných rozměrů byla snadno vestavět do kořene pravé poloviny křídla. Válcová olejová nádrž o objemu asi 11 litrů byla upevněna pod motorem.

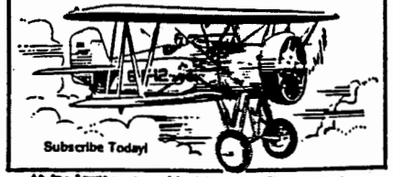
Zbarvení. Ještě za války byly v britských aeroklubech Moth Minory natírány na všech plochách stříbrnou barvou s poznávacími



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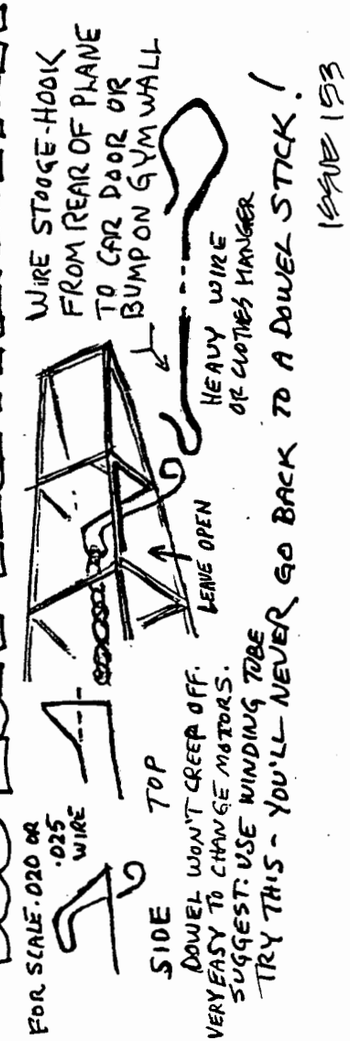
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