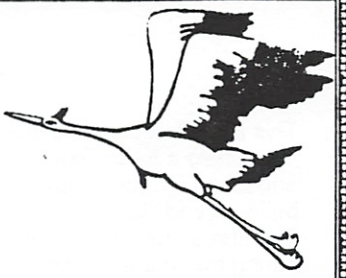
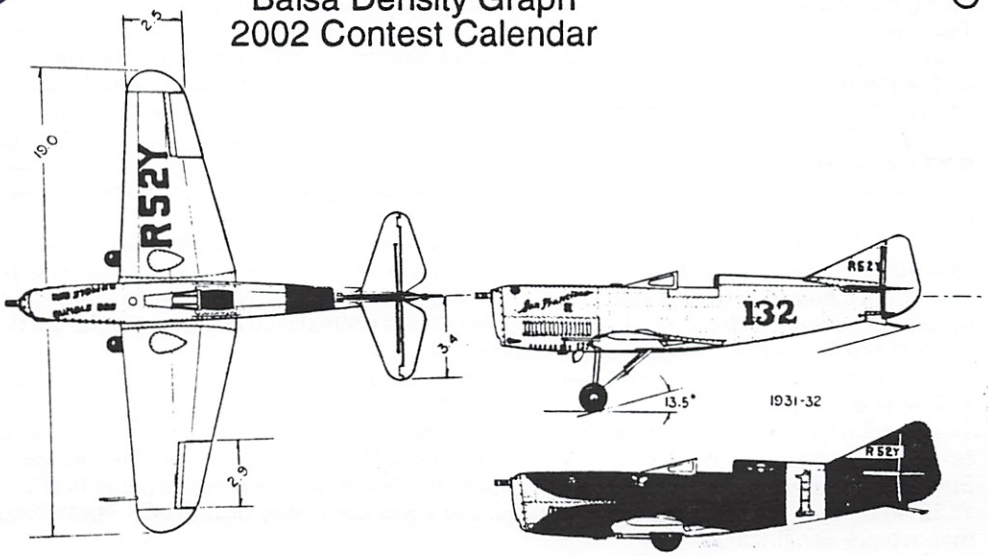
CROSSWINDS

#103

Haines Racer
Keith-Rider R-2
Balsa Density Graph
2002 Contest Calendar



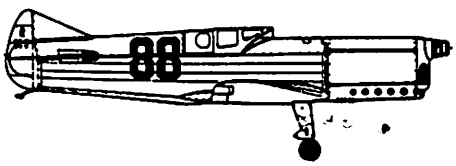


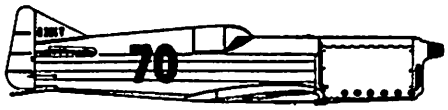
CROSSWINDS
RUSS BROWN
4909 N. SEDGEWICK
LYNDHURST, OHIO 44124



Frank Haines and his "Firefly", built partly from discarded components of Keith-Rider Aircraft and the Wedell- Williams Model 22 Engine.







Haines and Keith-Rider R-2 Greve racers

This issue features two closely related Greve race planes - the "Keith-Rider R-2" and the "Haines" which resembles a Keith-Rider . Construction drawings of their models were generously provided by Rich Weber and Goeff Phillips respectively - two of the younger members of the "Stork" Squadron., both excellent builders and fliers.
The first of the Keith-Rider racing planes, B-1, was entered in the 1930 National Air Races, but it crashed during the first event from losing an aileron, and was completely destroyed.
Two new Riders were entered in the 1931 race, identified as R-1s: the "San Francisco -1" and "San Francisco -2". The latter was renamed R-2 "Bumblebee" for the 1933 race and was given the race number 1 and registered as R52Y. It was owned by George McGrew and "C.F. McGrew" was painted on the rudder. The Number 1 appeared in a cream stripe which wrapped around the fuselage aft of the cockpit. It was piloted by George Hague in 1933 and won a first at 165.94 mph., two seconds at 160.36 and 159.96 mph., two thirds at 165.14, and 166.13 mph., five fourths at 171.22, 172.03, 172.34 and one drop out, plus fourth place in the Thompson race at 183.21 mph., then went on to get fifth place in the Shell Speed Dash at 210.12 mph.
Later in 1933 the fuselage was painted red with yellow trim and the wings and stabilizer were all yellow. The race number 1 was inside a yellow band on the fuselage and a picture of a bumblebee was painted on each side of the fuselage in front of the cockpit. At some races a Richfield gasoline emblem appeared on the rudder and a Shell emblem was on the head rest. At the International Air races Hague got three thirds at 160.35, 170.35 and 171.07 mph. and a fourth at 168.26 mph.
In the 1934 Nationals the "Bumblebee" placed third at 159.06 and fourth in two other 375 cu. inch events at 159.52 and 181.20 mph.
The "Bumblebee" was only entered again in 1938, piloted by George Dory, with its original all aluminum color scheme but with a race number of 17 and registration of NX98Y. It was known then as the "Bushey-McGrew Special". The Menasco engine threw a rod during the Greve race causing the plane to crash- land on W.227th St. near Lorain Avenue in Cleveland, and it was completely destroyed. These Keith-Riders were monocoque construction.
Keith-Rider planes were so respected that two more (5 and 6) were built. These were known as the "Elmendorf Special" and "Jackrabbit" respectively.
The R-4, ("Schoenfeldt Firecracker")was built with steel tubing and wood fairings covered with fabric and had a symmetrical airfoil. It raced very successfully in both 1938 and 1939.

The Haines Racer, built by Frank Haines, used some rejected parts from the Keith-Rider workshop which explains its resemblance to K-R planes. As Rich points out, it was painted bronze with red trim. The fuselage was obviously not aluminum covered as evidenced by the prominent stringers showing in the photos.
The Haines captured sixth place in the Cleveland Greve race in 1937 which was cut to 10 laps because of the blustery wind. Seven racers started but the "Delgago Flash" dropped out in the fifth lap. Kling won with his "Folkerts SK-3", followed by Whitman in "Chief Oshkosh", Gotch in the "Schoenfeldt Rider R-4", Rae in "Miss Detroit" and McKeen in "Miss Los Angeles". Haines limped in with a smoking engine.
Frank Haines and Rudy Kling (flying a Folkerts) were both killed in high speed stalls when rounding the scatter pylon at the windy Miami Air Races on Dec. 3, 1937 and both their planes were destroyed. Frank's pregnant wife had stayed home in Detroit, but his brother was there to see it happen.
The photo of Haines with the "Firefly" was taken at the Miami races just before his fatal crash.

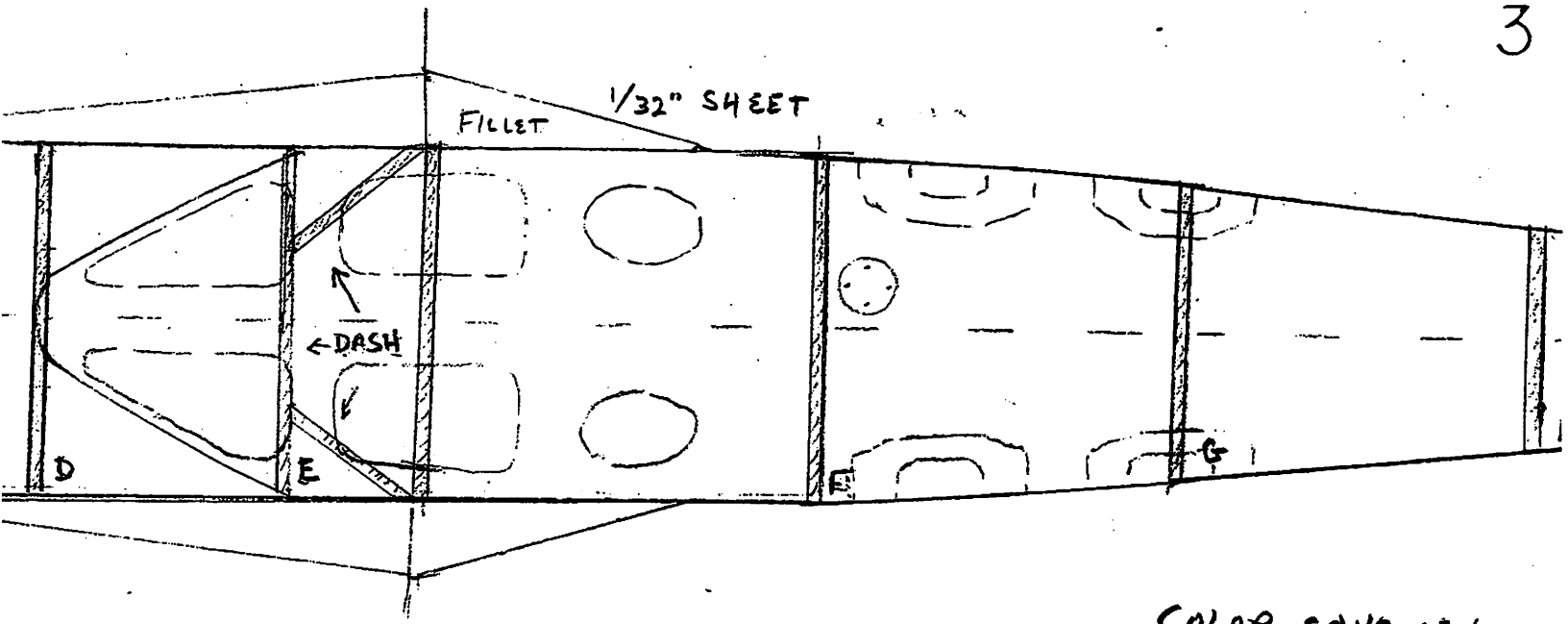
The Keith-Rider R-4 won the 1938 races and placed second in 1939. The R-5 and R-6 both flew in the 1939 races and the R-5 is currently on display in Oshkosh.

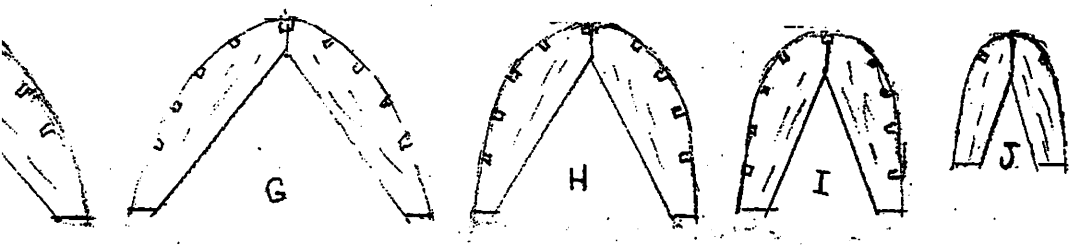
"Crosswinds" is indebted to the excellent memory of Rudy Profant and extra research by Rich Weber of the CFFS for shedding light on the history of the Haines Racer, and thereby clearing up the conflicting reports appearing in "The Golden Age of Air Racing" by Schmid and Weaver and the "AAHS Journal" Vol. 34 #3.

We have printed the plans for the K-R and the Haines Racer back to back, so those wishing to build one or the other of them will not have to turn-over the plan for their choice while in the processof building.

SKYWAYS back issues of RACING NOTEBOOK articles by John Sunyak, our Air Racing Historian from Parna, Ohio in Jan '96, July "96, Jan'97 and April "99 SKYWAYS doccument racer colors with tables and photos. Jan "97 SKYWAYS pg 45 shows the copper color Haines H-3 had red numbers, R91Y, and 88, and the name FIREFLYin script, Keith Rider racer photos are in SKYWAYS April '99, with the R-2 BUMBLE BEE on pg. 35. Back issue copies are about $ 6.00 each plus postage.
SKYWAYS and W.W.1 Aero with remarkable content in both are available at World War 1 Aeroplanes, Inc. 15 Crescent Road, Poughkeepsie, NY 12601 USA Phone 845 473-3679. Minimum annual contribution for each is $ 35 in USA. $ 40 to CANADA and outside USA.

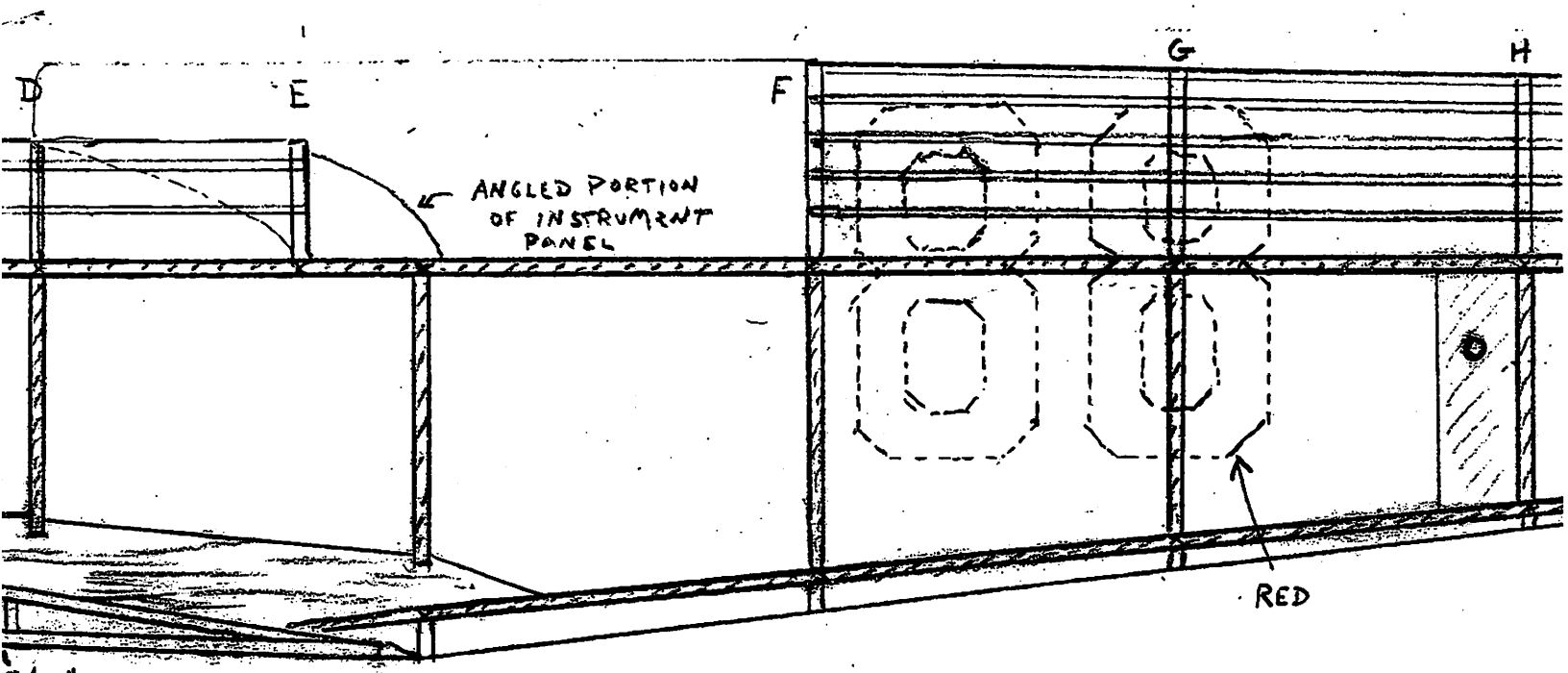
R.B.



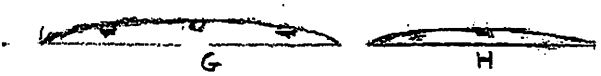


COLOR SCHEME:

- OVERALL METALLIC BRONZE
- RED MARKINGS



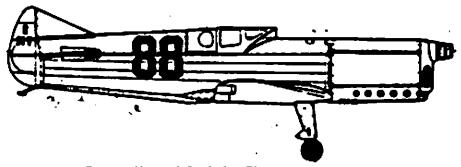
7/16" UPRIGHT BRACE



HAINES H-3
"FIREFLY"
22" SPAN

SHEET 1

PLAN BY
RICH WEBER
"WINGNUT"



The Haines H-3

Frank Haines built his racer in Detroit using parts of earlier Keith Rider airplanes according to "The Golden Age of Air Racing", but they don't say which ones. Frank and his sleek bronze beauty had a short racing career. They placed fifth in the Greve Trophy race in Cleveland in 1937 at 177.715 mph. He took it to Miami that Winter for the All American Air Maneuvers. On December 3, he was killed when the H-3 crashed at the scatter pylon. A high speed stall was probably the cause. Rudy Kling suffered the same fate in his Folkerts.

My Haines H-3

After deciding that I needed an entry for the FAC Greve Race event, I spent an evening pouring through my well thumbed "World Wide Directory of Racing Airplanes" looking for something that hadn't been built before. Since that's probably impossible with all the FAC activity over the years, I was ready to settle for a racer that at least I hadn't seen in model form. When I flipped the page with the picture of the H-3 on it, I quit looking. It was love at first sight. It had everything; retracts, swept back leading edges, a weird canopy set up, and a color scheme that was simple but distinctive. I knew that a metallic bronze finish would be a challenge, but it sounded so cool that I was determined to figure out how to get one. A couple of email inquiries brought a nice three view to my mailbox and I was ready to go.

Construction is conventional in every way. I used 1/16" for most of the structure. The curved portions of the flying surfaces are laminated. The wing is the cracked rib variety. The fuselage has a high thrust line, but I handled that by cutting out the cross members in the nose area for rubber clearance.

The canopy is one of the most distinctive features of Frank Haines' creation. I cut the windscreen from some fairly thick plastic sheet and glued it in place. The canopy was cut from bond paper, laminated with colored tissue on the outside, and lined inside with cellophane. Make a bond paper trial version to make sure it all fits up right.

There were several attempts at the bronze finish before I found one that looked OK and didn't weigh a ton. Suffice it to say that I didn't have much luck with paint, no matter what method I used to apply it. I went back to my favorite model coloring method, chalk.

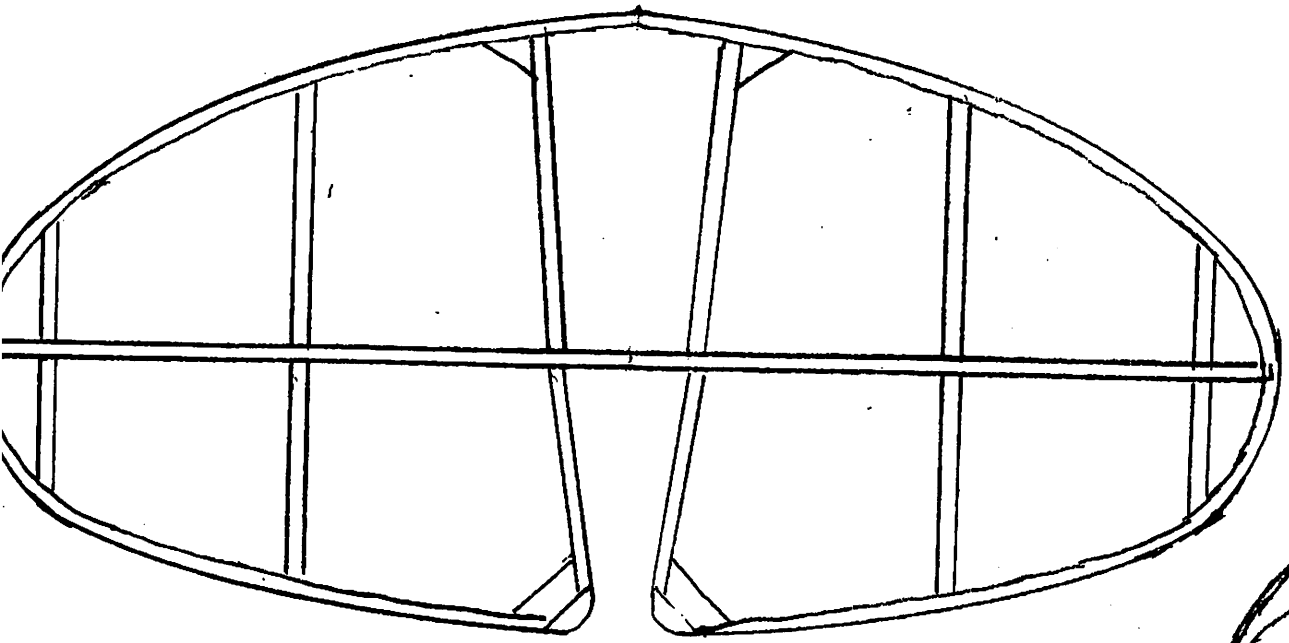
Here's a way to make bronze tissue. Tape down a layer of newspapers on your work table. The surface must be smooth and flat. Put a piece of white esaki on top of the pile with the shiny side down and tape the corners down. Pastel chalk is available in several brands from a variety of sources. I prefer NuPastels because they're easy to work with, available locally (at Pat Catans), and Cheap! Just be sure that you Don't Use Oil Pastels. NuPastels come in a huge variety of colors. 238P is a good bronze brown. You can gently rub a piece of the chalk stick directly onto the tissue or crush it into a powder and sprinkle it on. Use a pad of paper towel, facial tissue, or the like to gently smear the powder into the esaki fibers and brush off the excess until you are satisfied that you have a nice even color. It takes longer to describe than it does to do it. You'll find the esaki weighs very little more than when you started and it behaves just like unchalked tissue. The color is locked in. Water shrinking won't affect it.

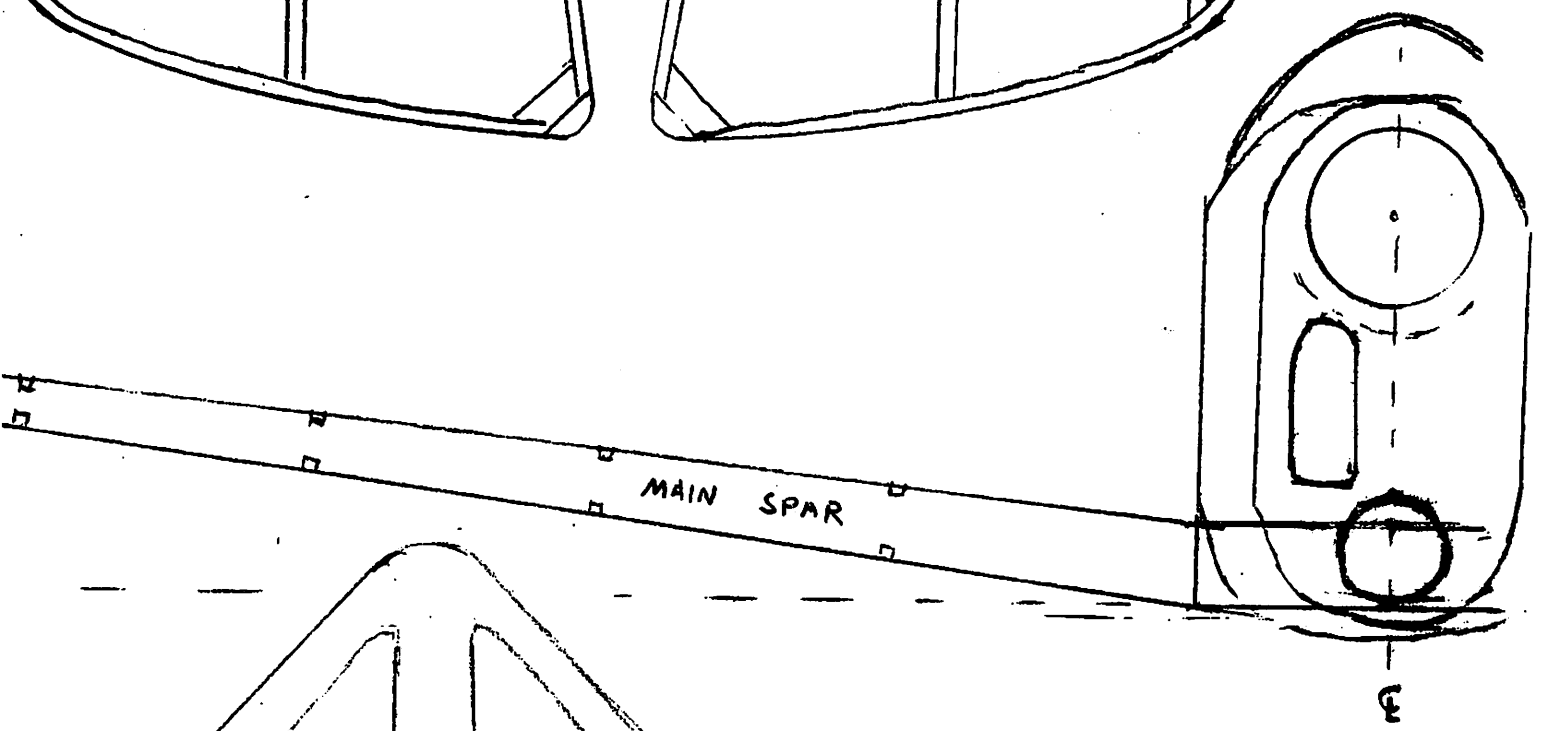
You can cover your H-3 right now and pretend it's metallic, or you can go all the way. I took the chalked esaki and stuck it in a frame. While I was at the craft store (I love those places) I picked up a couple of tubes of "Rub 'n Buff". They don't make bronze, but a dab of "autumn gold" mixed with "european gold" looked pretty close. I mixed a tiny dab of the goops with naphtha and airbrushed it over the shiny side of the tissue to give it a metallic sheen. The naphtha dries quickly and a soft swipe with a tissue blends the sparkles into the fibers. Once again, the weight gain is almost impossible to measure.

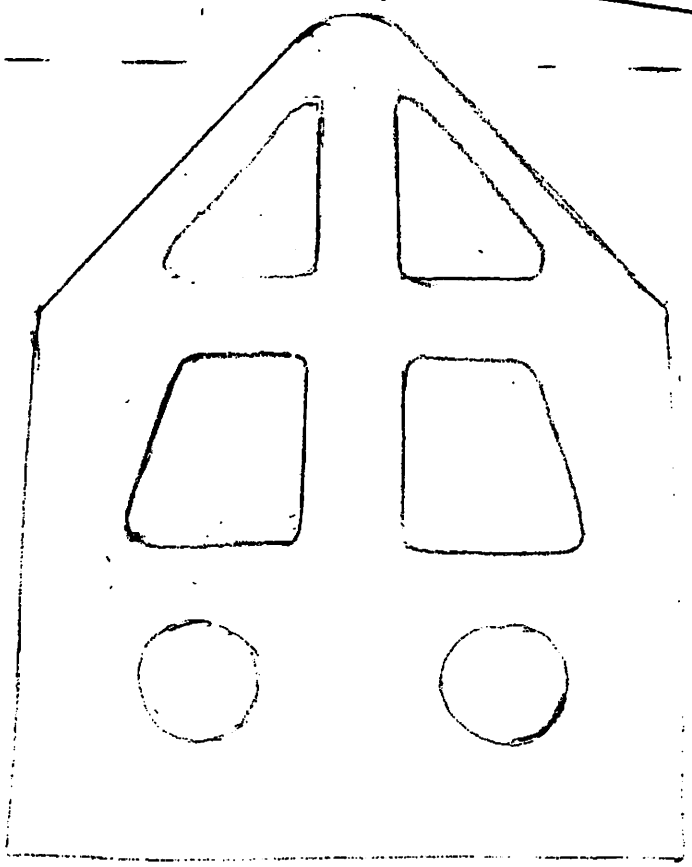
After covering in the usual way, and water or alcohol shrinking, I finished with a coat of Krylon Crystal Clear. With a bright red set of numbers set against it, it's a nice looking ship. Mine weighs 31gm and is a very stable flyer.

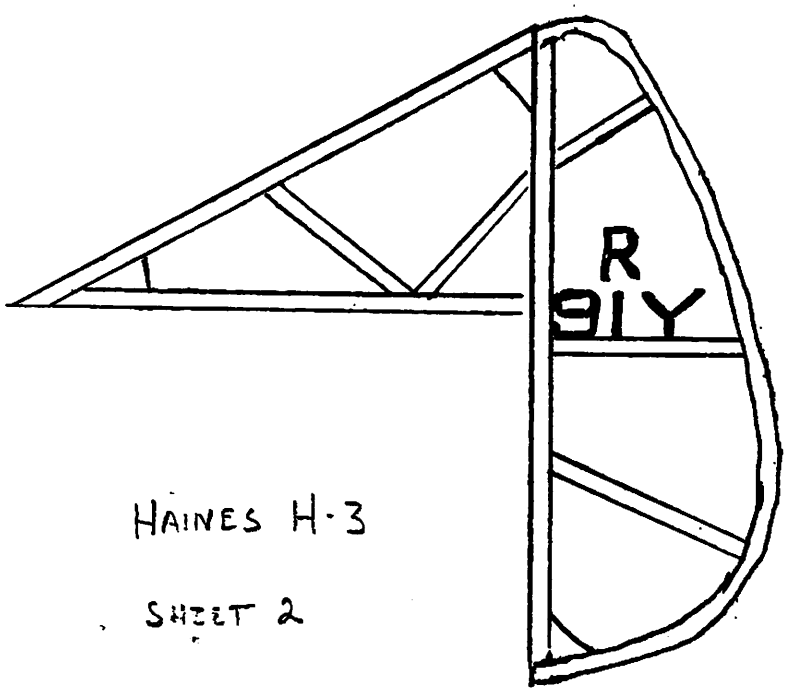
Wingnut

RACEPLANES 1/4"/ft. 11"X17" 5-views of Keith Riders in set M1 with 5 drawings including R52Y R-2, M2 with 4, M3 with 3, and M4 with three greats; the No. 21 Chambermaid, Floyd Bean Sp'l, and XW # 103 feature Haines H-3 Firefly racer are available from R.S. Hirsch at 8439 Dale St. Buena Park, CA 90620 at near $3/ Dw'g. WIND CANYON BOOKS has the Bob Hirsch Goodyear and Formula One Air Racing books : Vol. 1 1947-'67 and Vol. 2 1967-'95 are $24.95 each + $4,(and + 7% Tax in CA.) WIND CANYON is at P.O. Box 511, Brawley, CA U.S.A. Ph 1-800-952-7007. FAX 888-289-7086. E-mail: books@windcanyon.com Website: www.WindCanyonBooks.com Or check in with Bill Hannan's Hangar Phone 530-873-6421. R



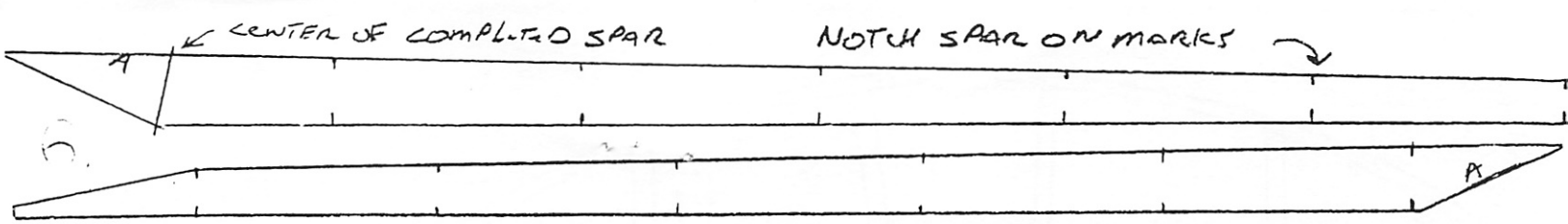




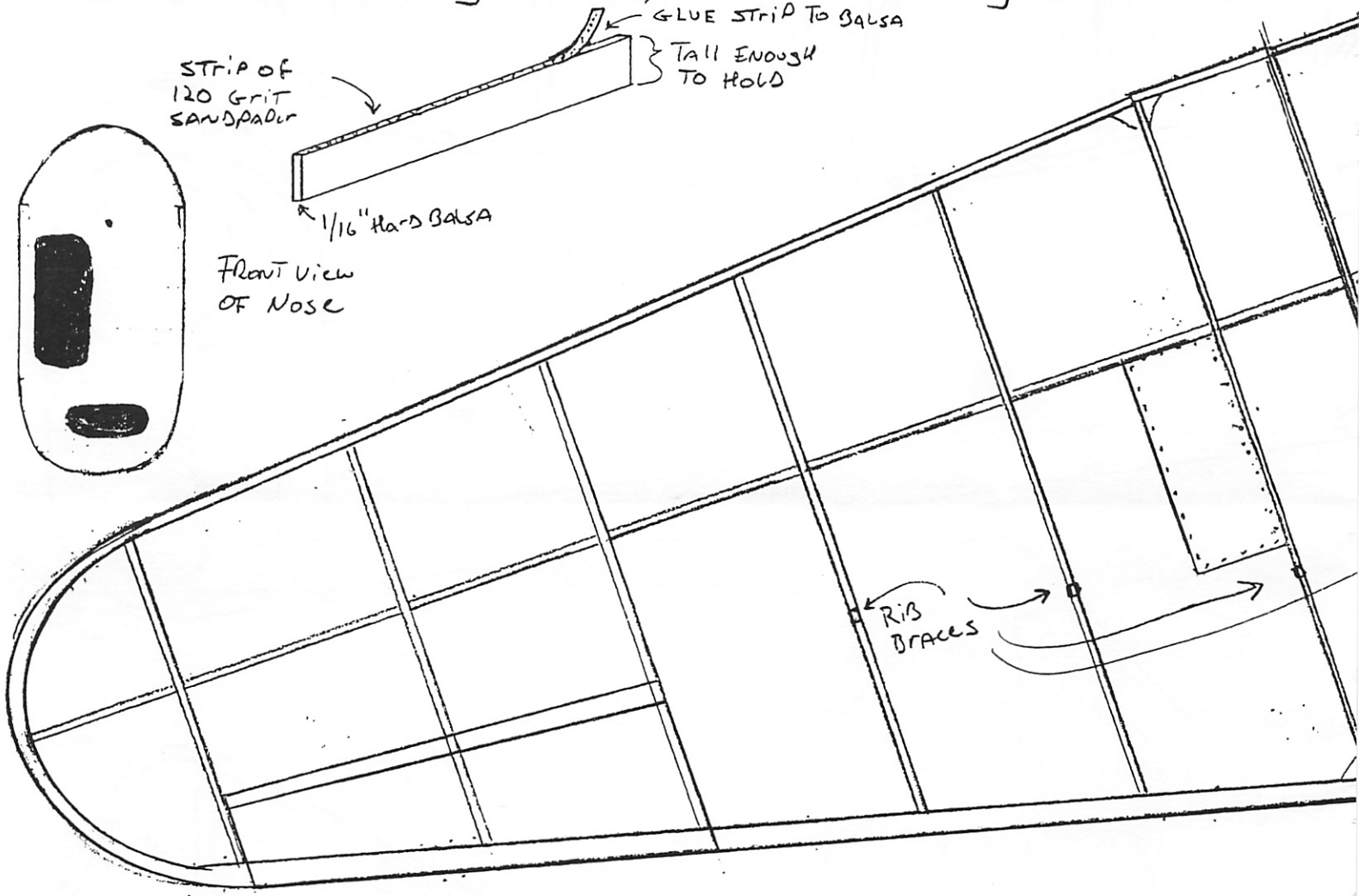


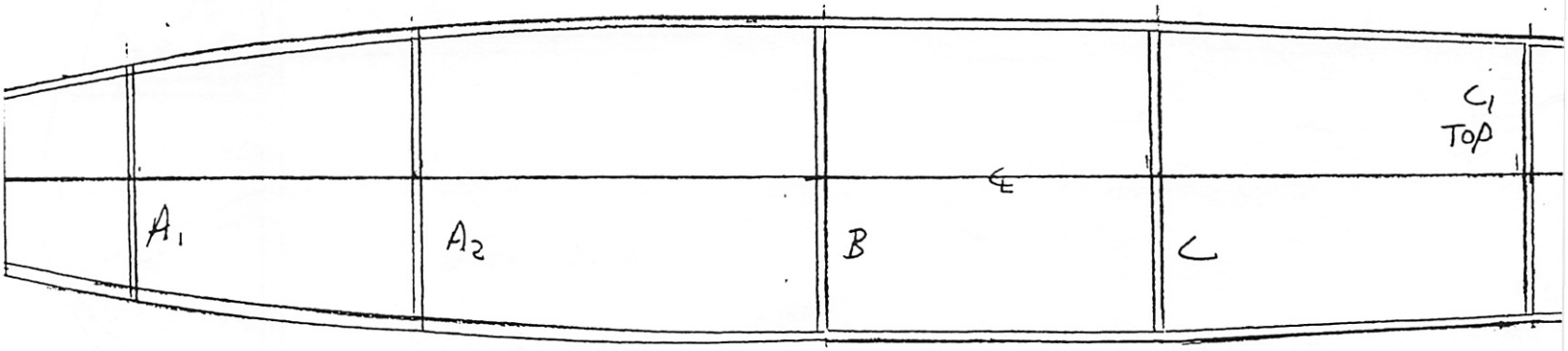
HAINES H-3

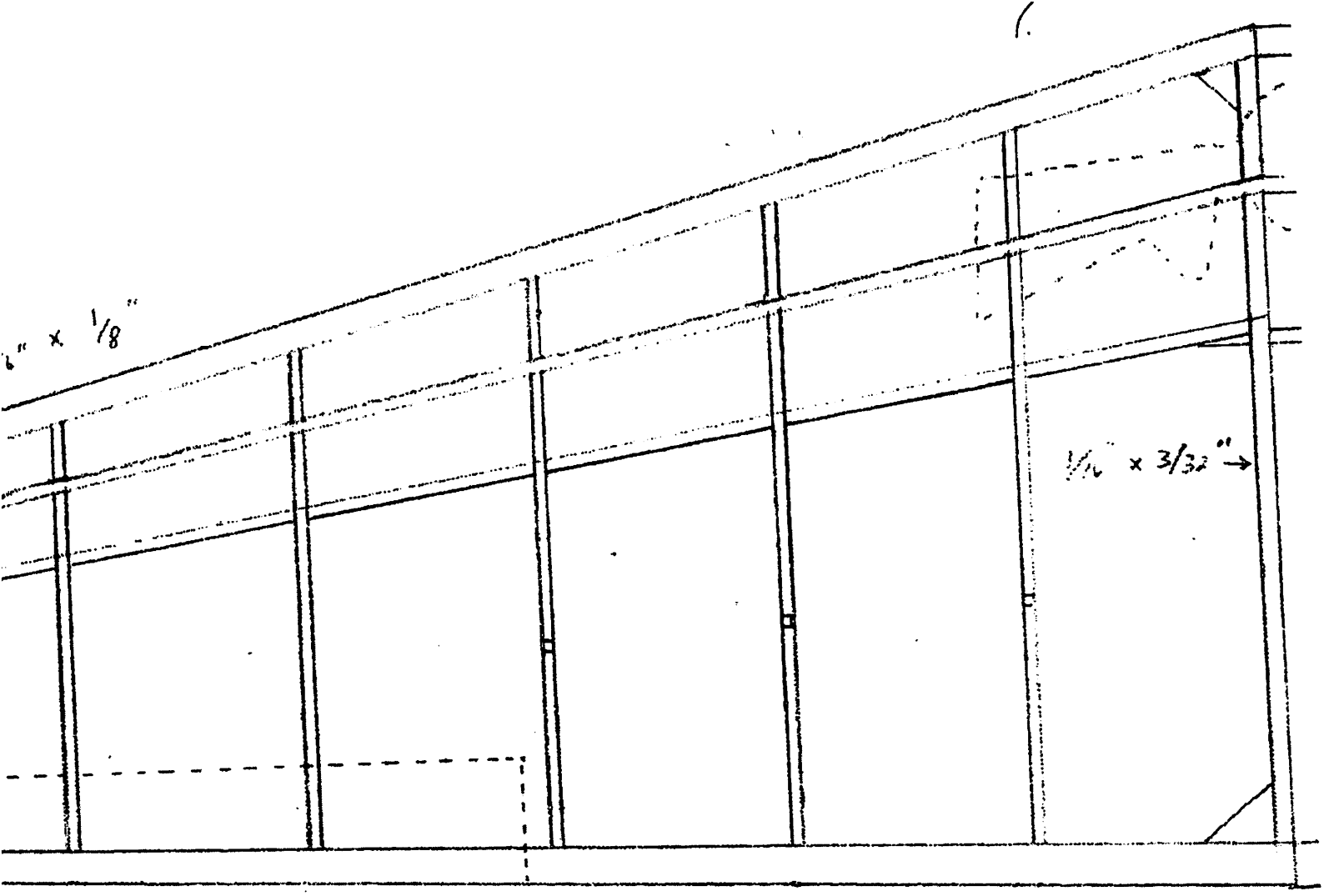
SHEET 2



WING SPAR PATTERNS - MAKE FROM STIFF 1/16" BALSA MATCH A-A
MAKE SPAR TO GIVE 2" DIHEDRAL - NOTE: 1½" WAS TRIED & FOUND
TO BE UNSTABLE FOR FREE-FLIGHT. MAKE WING USING SLICED RIB METHOD
FROM 1/16" BALSA. LEADING EDGE - 3/32" SQUARE & TRAILING EDGE 1/16" X 1/8"
TO NOTCH SPAR & FUSELAGE FORMERS, MAKE A 1/16" NOTCHING TOOL PER DETAIL



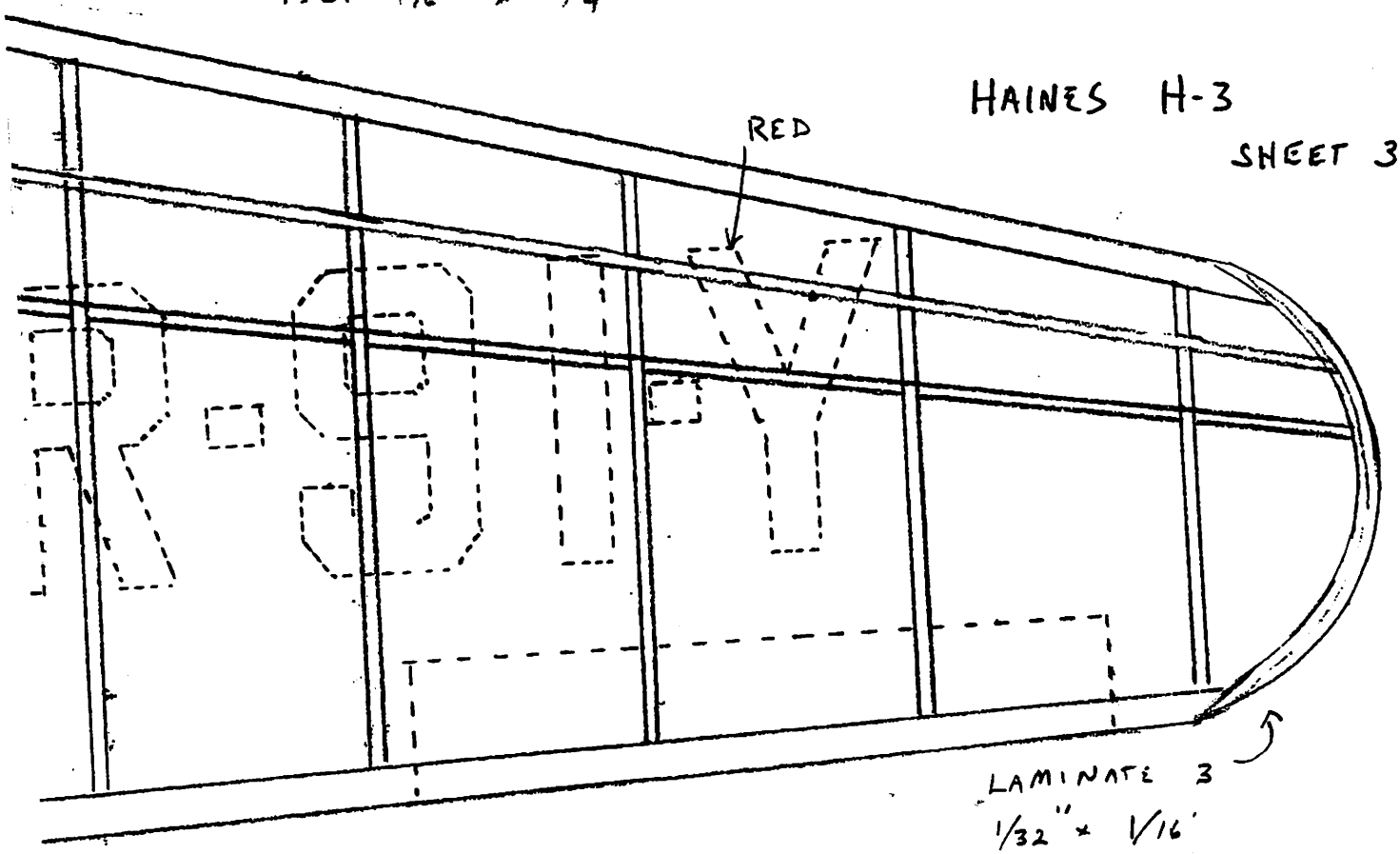


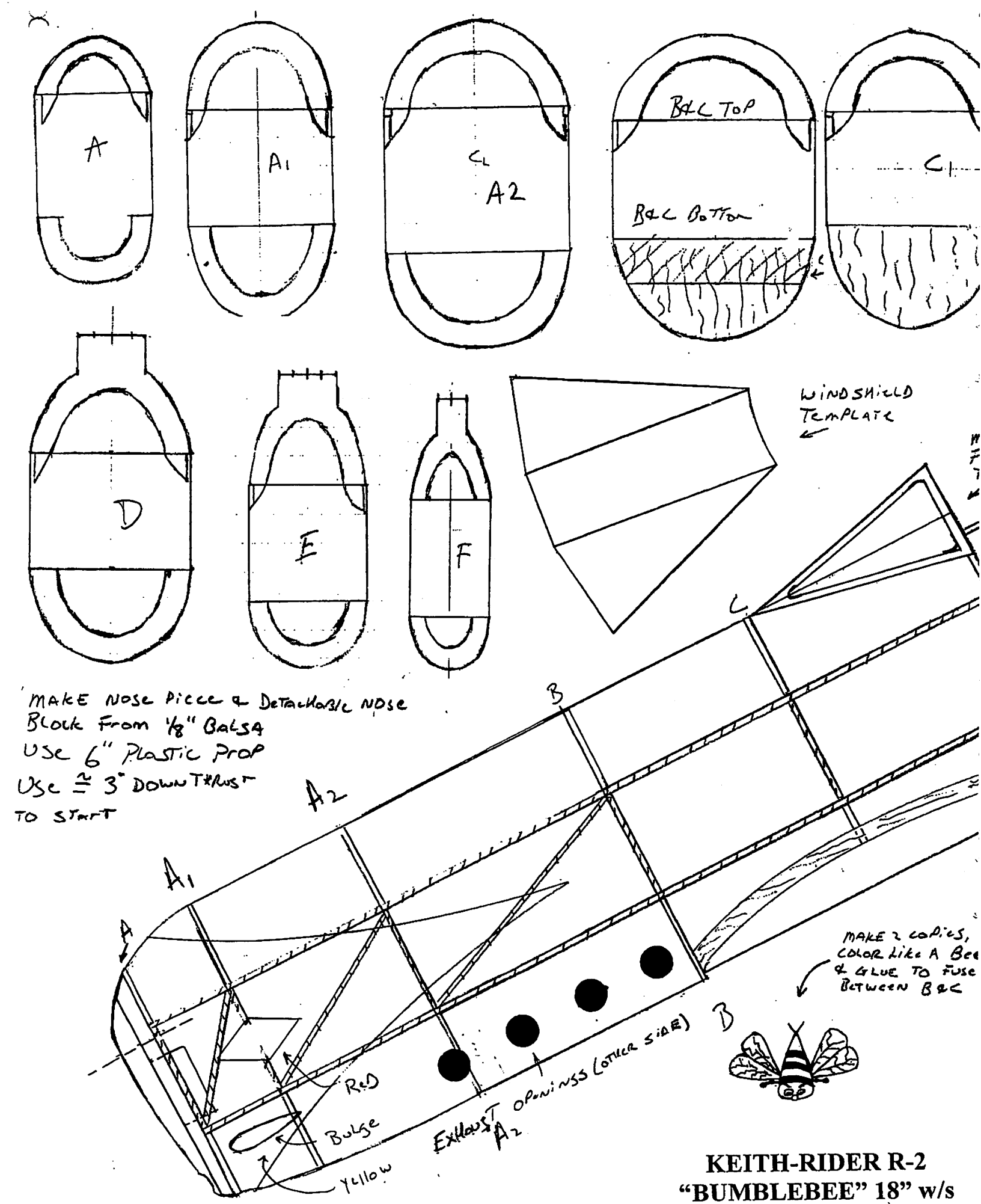


T.E. 1/16" x 1/4"

HAINES H-3

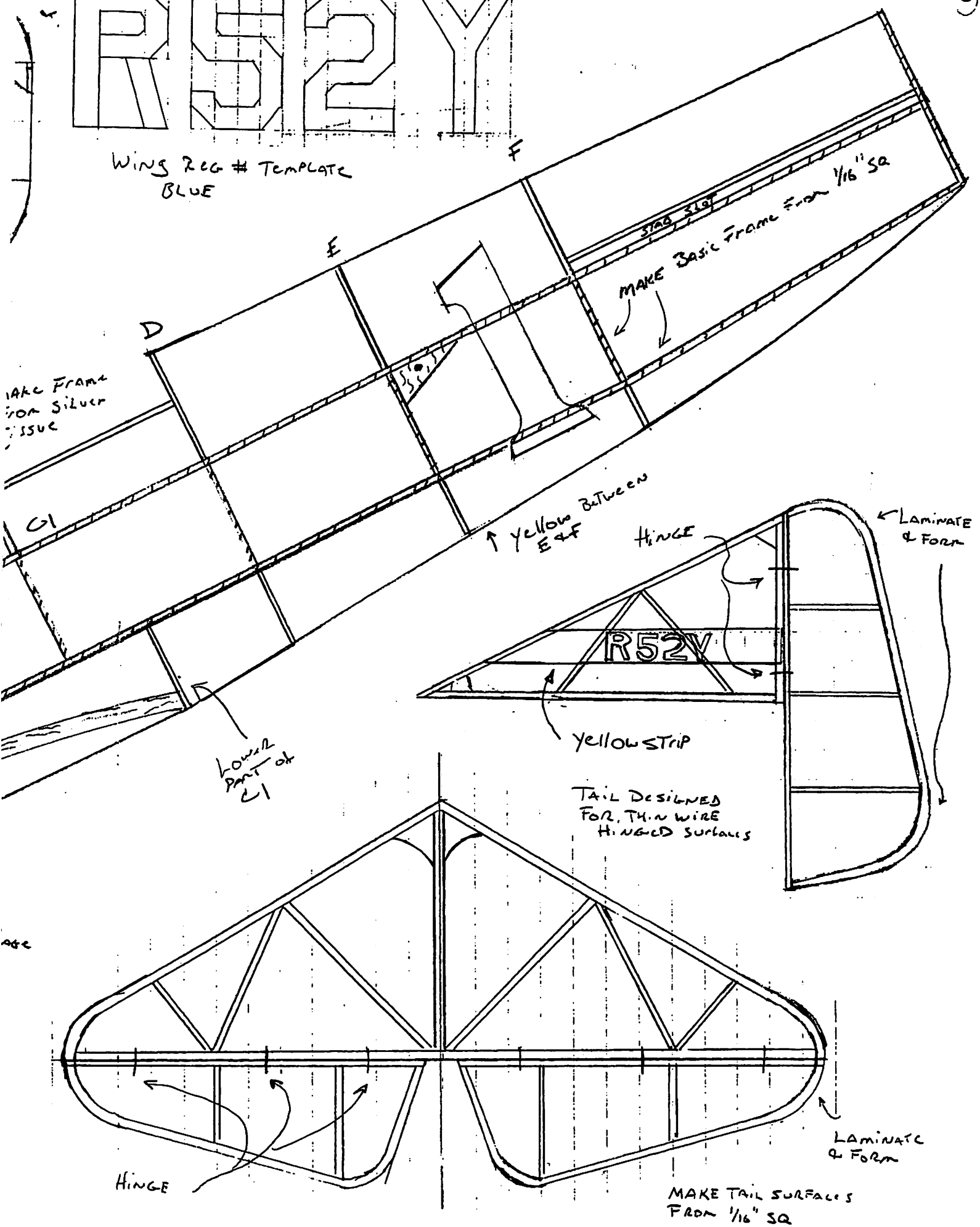
SHEET 3

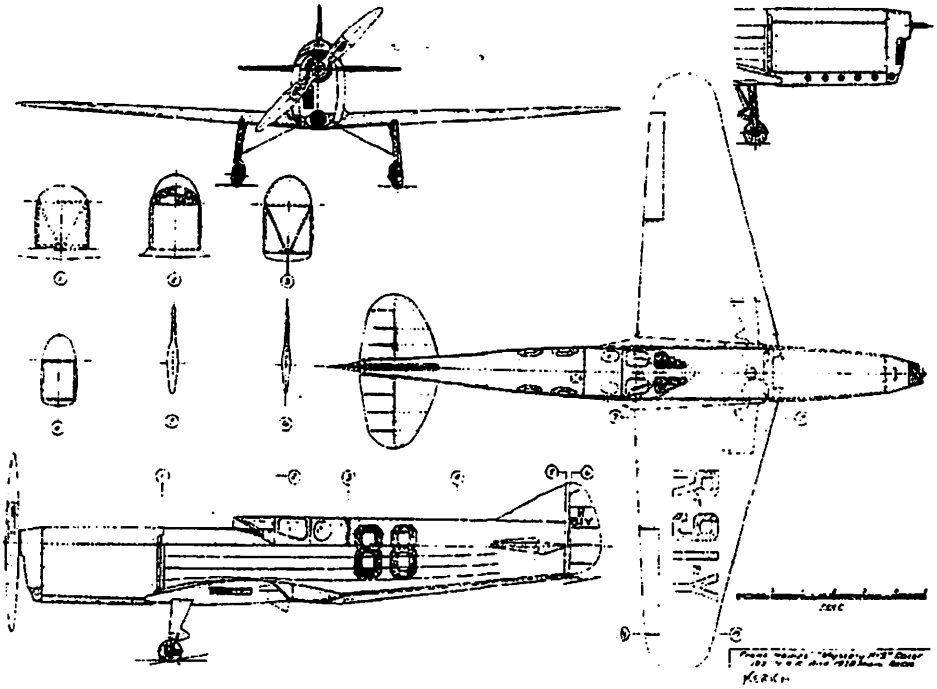




KEITH-RIDER R-2
"BUMBLEBEE" 18" w/s
Drawn by Geoff Phillips
7/26/02

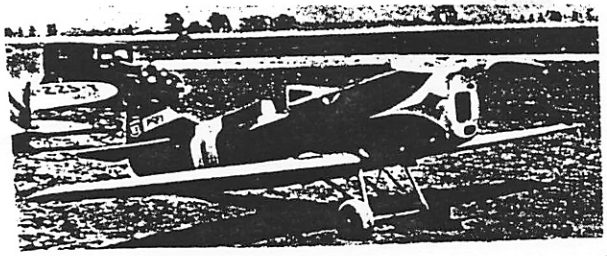
R52Y


Wing Reg # Template
BLUE
F
E
D
C1
MAKE Basic Frame from 1/16" SQ
Stab Slot
Make Frame from Silver Tissue
Yellow Between E & F
Lower part of C1
Hinge
Laminate & Form
R52Y
Yellow Strip
TAIL DESIGNED FOR THIN WIRE HINGED SURFACES
Hinge
Laminate & Form
MAKE TAIL SURFACES FROM 1/16" SQ



L.E.

1/16" x 3/32"



Laminate & Form Tips
From 1/32" x 1/16"

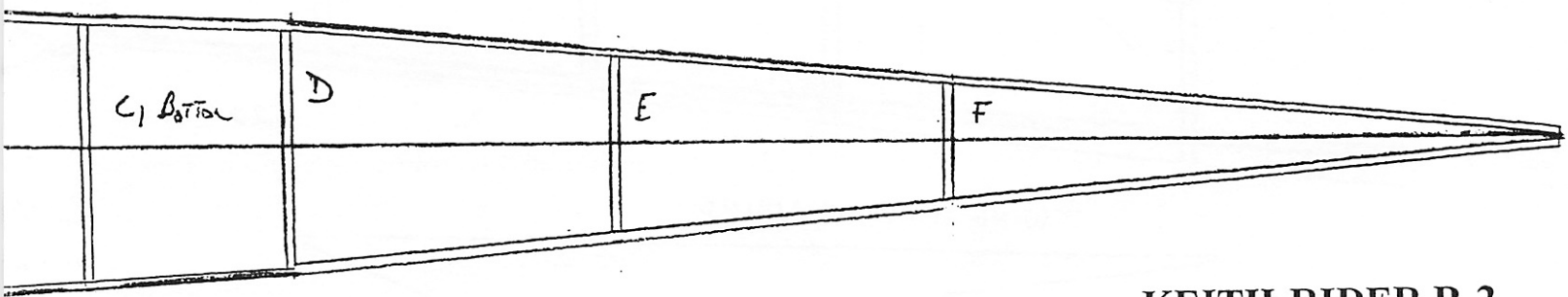
RACE # TEMPLATE BLUE

CUT OUT THIS CURVE, GLUE TO CARD STOCK & USE AS RIB SLICING PATTERN

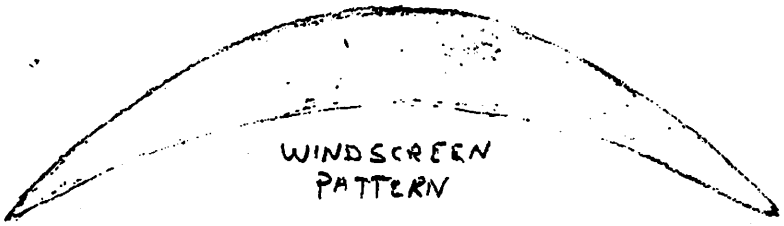
WING SECTION AT ROOT

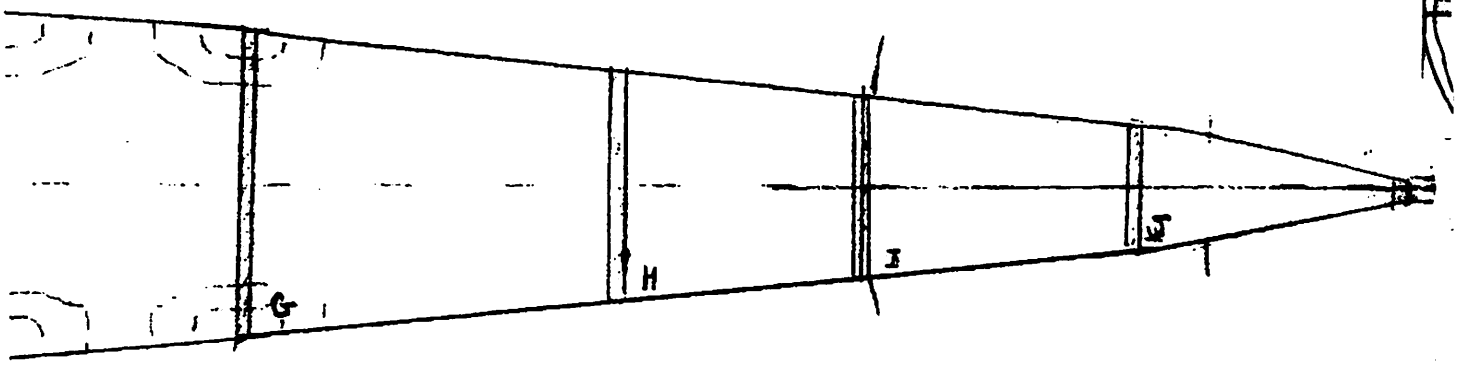
1/16" SQUARE BRACE TO PREVENT TISSUE FROM WARPING WING

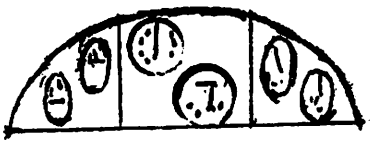
COLOR SCHEME FOR YEARS 1933 TO 1938 IS RED FUSELAGE WITH YELLOW TRIM, RED RUDDER, YELLOW WING & H. STAB WITH BLUE REG # & RACE #



KEITH-RIDER R-2
"BUMBLEBEE" 18" w/s
Drawn by Geoff Phillips
7/26/02

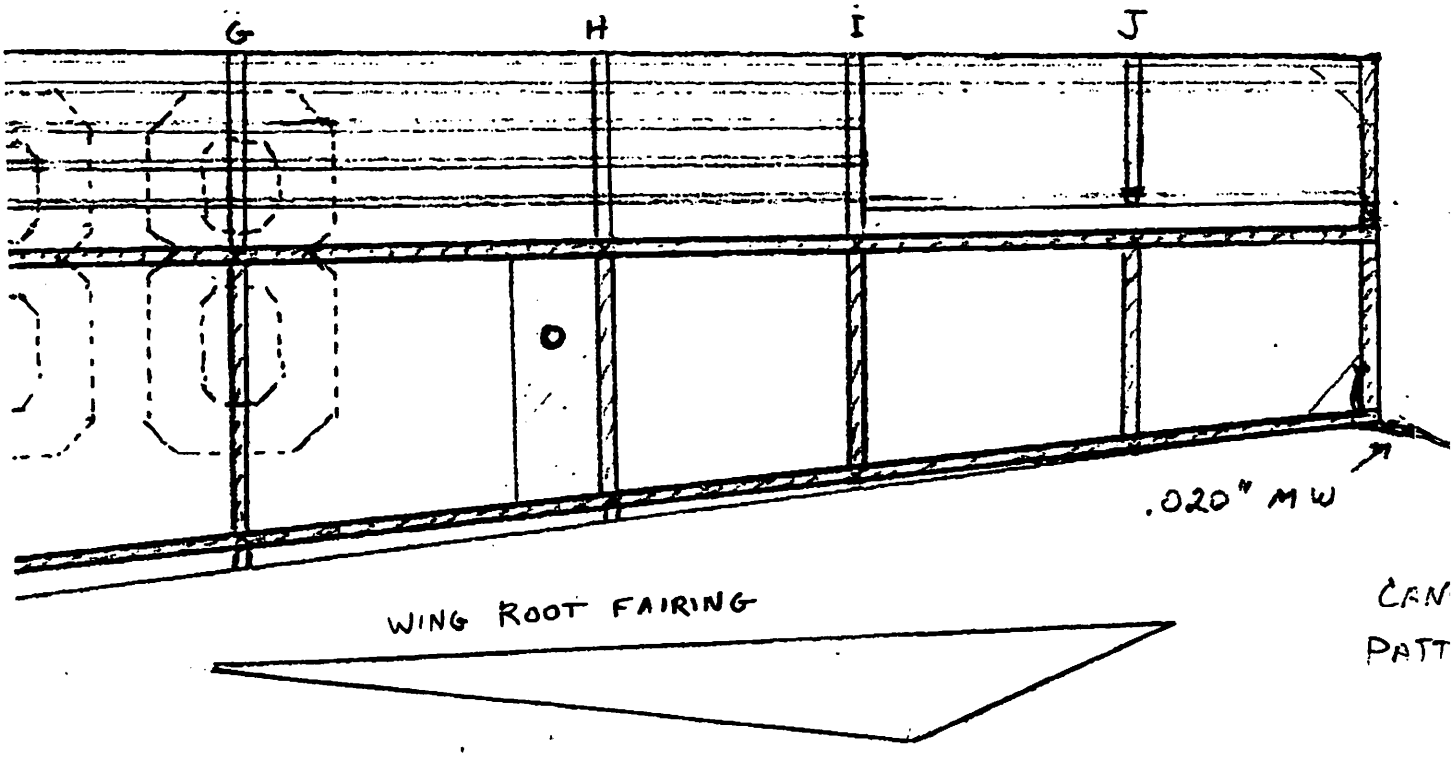






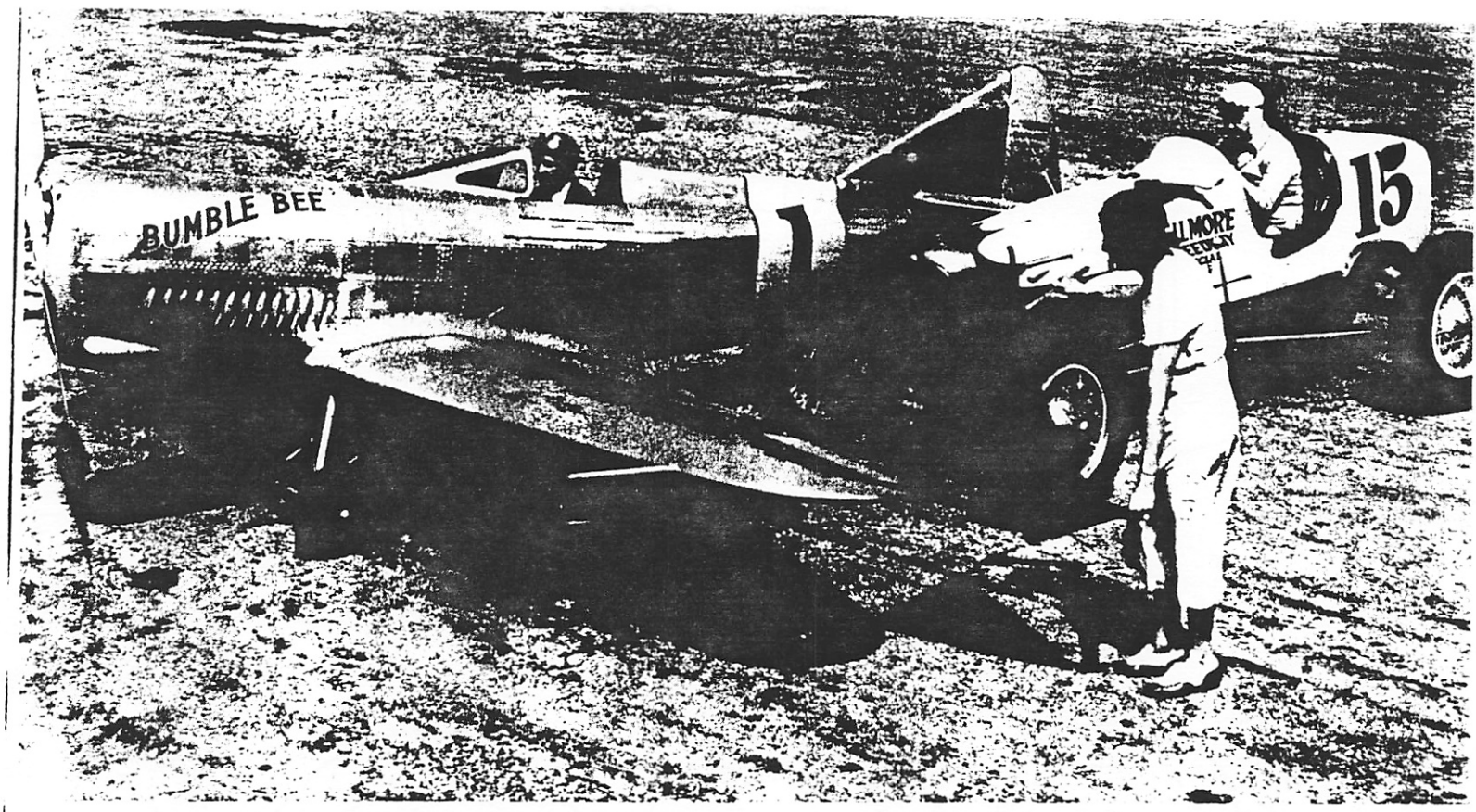


1½"



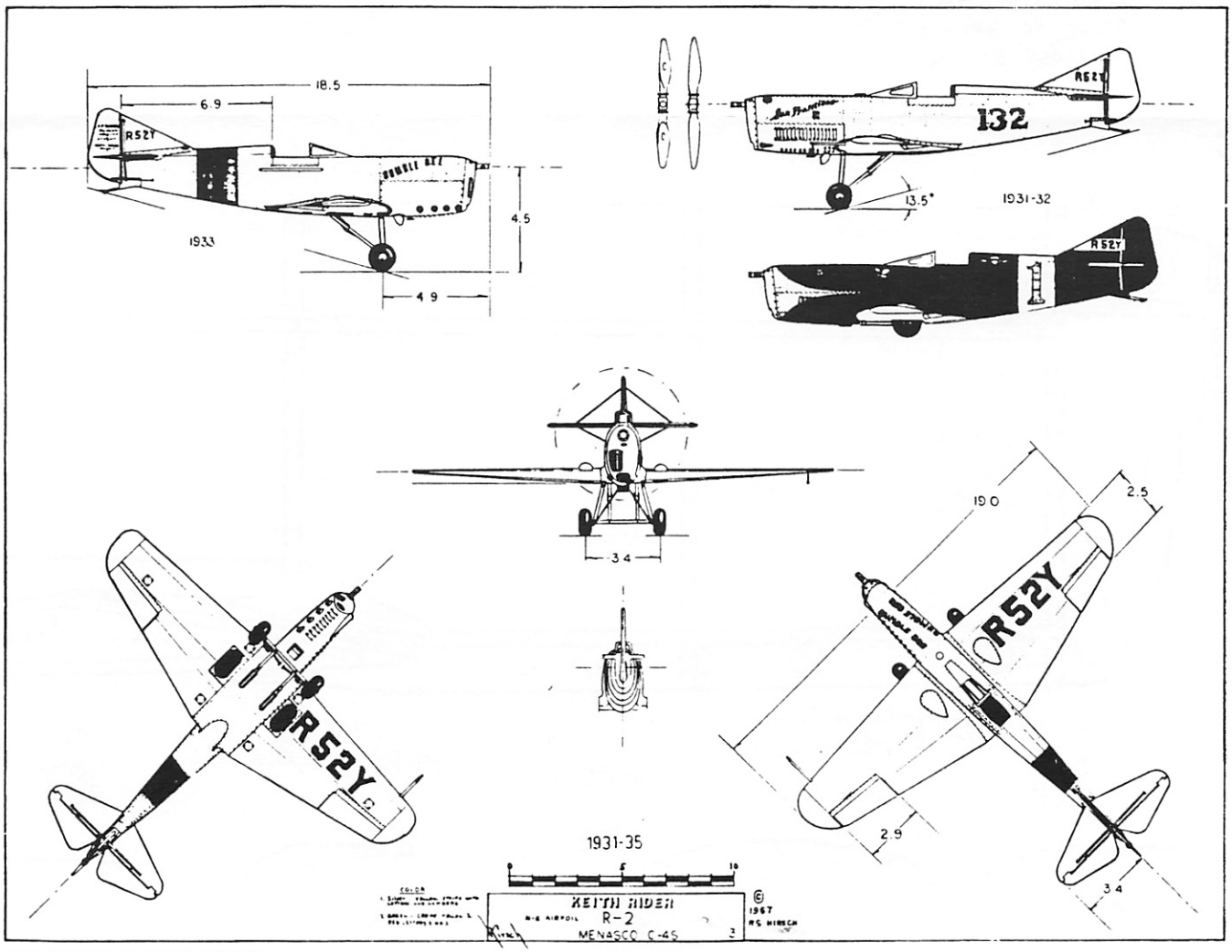
WING ROOT FAIRING

CAN
PATT

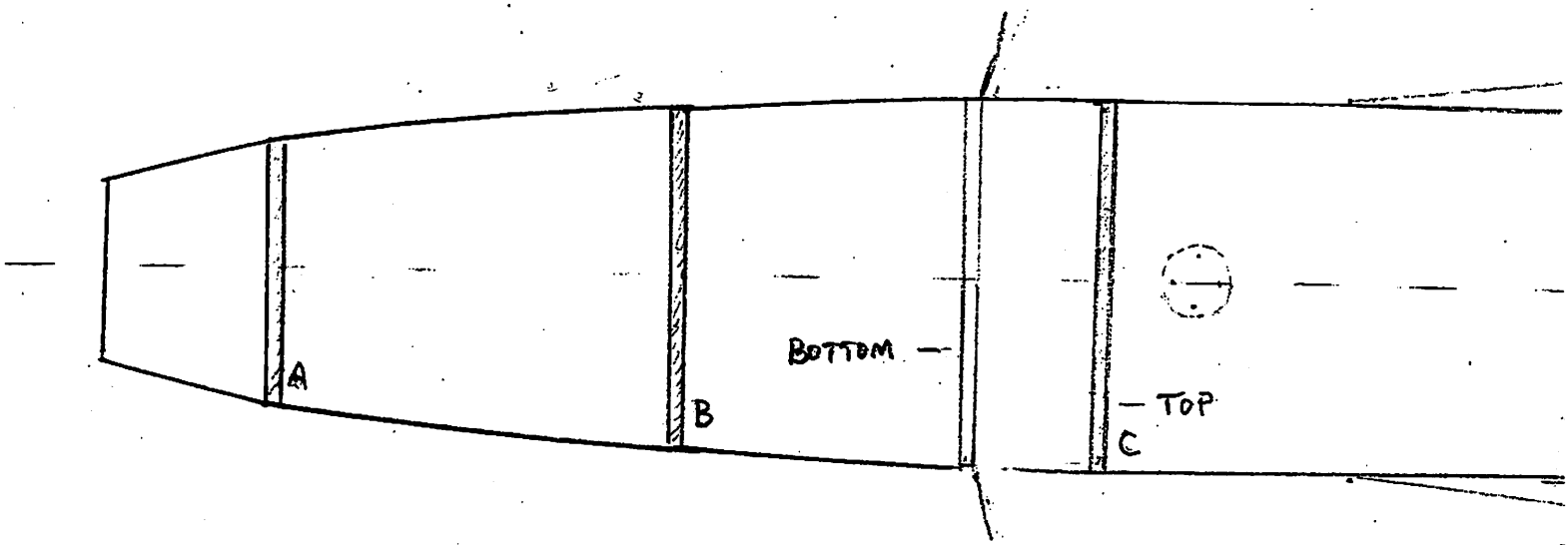


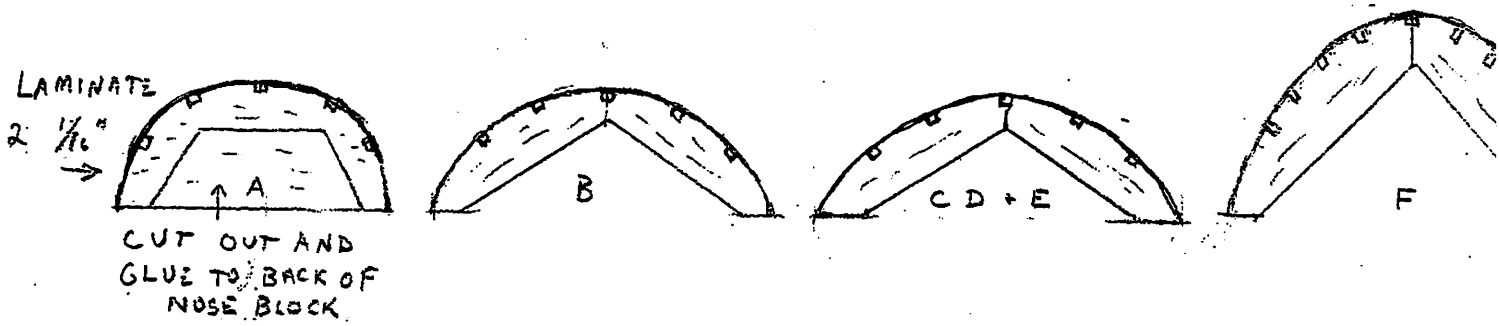
Typical publicity shot showing the Keith Rider R-2 and 1933s latest in race cars and women's wear. George Hague in cockpit of the R-2, actress/aviatrix Ruth Elder with flag, and Babe Stapp in the Gilmore Special. Shortly after this picture was taken Hague was killed on a charter flight.

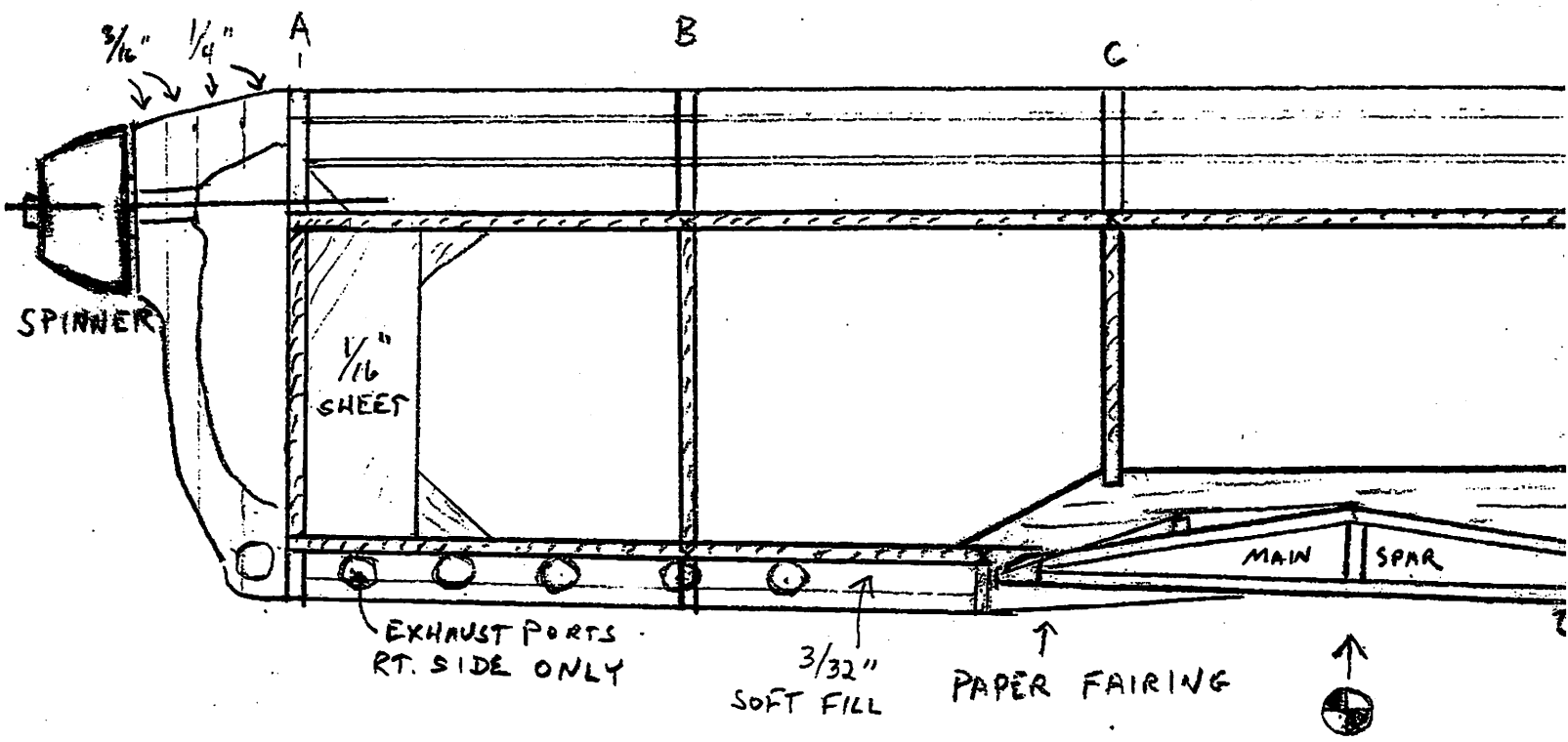
13



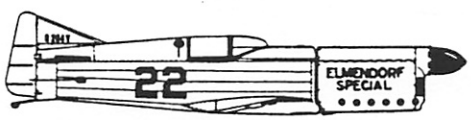
DRAWING BY ROBERT HIRSCH

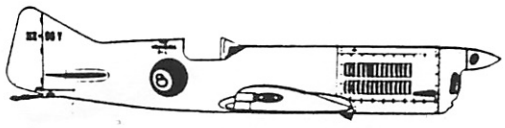

A
B
BOTTOM
TOP
C


LAMINATE
2 1/16"
A
B
C D + E
F
CUT OUT AND
GLUE TO BACK OF
NOSE BLOCK


3/16"
1/4"
A
B
C
SPINNER
1/16"
SHEET
MAIN
SPAR
EXHAUST PORTS
RT. SIDE ONLY
3/32"
SOFT FILL
PAPER FAIRING


A
B
C + E
F





High time in G-town

The FAC Nats Mk XIII has passed into history and a strong contingent of CFFS members were there to help write it. We had three days of good weather, good flying, and good fellowship. It doesn't get much better than that.

Most of us were able to get our shelters pitched in the same neighborhood on the flight line, so we could lend mutual support when needed. There was also a gathering at one of Geneseo's watering holes on Friday evening where several of our stalwarts carried on a carefully controlled experiment on the effect of alcohol on model aviators. It was a great success and the discussion that ensued was quite unforgettable. Watch for a write up in the Scientific American.

Local talent in the hunt for Free Flight glory included (in no particular order) Vern Neff, Mike Zand, Del Balunek, Dennis Norman, Dan Kane, Gordon Roberts, Jim Hyka, Steve Griebling, and this correspondent. Russ Brown was there to help out and offer his expertise in scale judging.

I won't repeat all the results that you're going to see in the next FAC Newsletter but I'll tell you that when it came to the awards banquet, Steve and Gordon made multiple trips to the front of the room. Vern came up with a kanone in Golden Age Military mass launch due in large part to the fact that Del was his mechanic. (I know it must be true. Del told me so.) If they were giving an award for a record number of models lost OOS, Steve would surely have been in the running.

This was my third trip to that little patch of Free Flight heaven. I think it was the best one yet.

Bee Line Unlimited Racing at the Nats

The first official BLUR event was judged a success by participants and spectators alike. There were several purpose-built models, but most were retrimmed entries from the other FAC race events. There were a lot of people who planned to give it a try, thinking that it would be easy to get a model to fly eighty feet in a straight line. They found out otherwise.

The action was fast paced and well attended. There was a large number of spectators cheering and heckling the racers to add to the fun. It's the only FAC event that happened at eye level and it moved quickly. With a seven gram motor limit, most people figured out that you don't need many winds on a short fat motor to get you to the finish line, so chases were usually short.

Ed Pelatowski won last year's trial run and he came out on top again this year to take home the trophy, a kanone, and the leather jacket. EZ Built Models will be sponsoring the event again next year, so we'll be back.

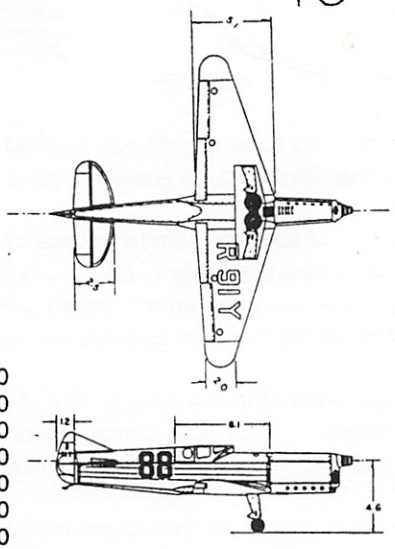
Wingnut



Photo ot the CFFS group at the 2002 Nationals in Geneseo, N.Y. supplied by Rich Weber:
L. to R. Mike Zand, Irene Zand, Dennis Norman, Nancy Hyka, Jim Hyka, Rich Weber, Del Balunek, Steve Griebling, Gordon Roberts, Dan Kane - front: Vern Neff -(president) - holding the banner.
Missing from the Photo: Russ Brown, Carol Kane and her daughter, Amanda.

CFFS CONTEST EVENTS AT LORAIN COMMUNITY COLLEGE ATHLETIC FIELD

1. FAC Peanut Scale, full points.
2. Hi-Wing Cabin Peanut Experimental
3. Hi-Wing Cabin Peanut Production
4. FAC Dime Scale
5. FAC Rubber Scale
6. FAC OH Funk & Waco Ltd. M.L.
7. FAC Jumbo Scale
8. FAC Pinoneer Scale
9. FAC Golden Age Civil Aircraft
10. Golden Age Military Aircraft
11. FAC No Cal Profile Scale
12. No Cal WW II 3 flight. total
13. FAC Power Scale Elect. or CO2
14. O.T. Gas Replica Elect or CO2
15. Embryo Endurance (J) (S) (O)
16. Jr. Rubber 3 flight. No Max.
17. H.L. Glider (J) (S) (O) * $1 Pot.
18. 6" Stick catapult glider, $1 Pot.
19. FAC O.T. Rubber 36" Pot
20. FAC O.T. Stick 36" Pot.
21. FAC O.T. Two Bit. 25" Max. $1 Pot.
22. O.T. Jimmie Allen R.O.T. $1 Pot.
23. Modern Civil Scale, 3 flight total
24. Modern Military M.L. @12:00
25. WW I Multiwing Peanut M.L. @12:30
26. WW I Multiwing FAC M.L. @1:00
27. WW II Peanut Combat M.L @ 1:30
28. WW II Combat FAC M.L. @ 2:00
29. Bendix Trophy Race M.L. @ 2:30
30. Goodyear F.1 race M.L. @3:00
31. Greve In-lines Race M.L. @3:30
32. Thompson Radials M.L. @4:00
33. P-20
34. P-30



FAC rules apply with inspection of No Cal & Dime detail. Mass Launch 45 point Min. detail and O.T. Per Plan. Pre select event for multiple option models. No size changes in O.T. 25" Max. Mass Launch and O.T. Gas replica out of bounds to be set at field. All may pick a plan prize.
I-90 Exit 148 to Rte. 301 (S. Abbe Rd.) Check Hoag Rd or upwind..
Sunday Oct. 6 at LCCC 9 AM to 5PM, C.D. Gordon Roberts 216-749-4817

Other Events of Interest:
Sept. 21-22 Empire State Indoor Champs at Bills Field House Orchard Park, N.Y. 10 FAC and 9 AMA Events including F1D plus Science Olympiad . Radio Control session 9/21 evening.
Access to site is noon on 9/21. Vet Thomas 970 Clarkson-Parma Town Line Rd. Hilton, N.Y. 14468
(585) 392-5164 vthomas@rochester.rr.com Site is 200x400 feet with an arched ceiling height of 128 feet.
Entry fee for Free flight only = $25; Open R.C. only = $20. Open FF & R.C. =$35
Juniors FF ocontest $5; R.C. $5. Valid AMA or MAAC licenses required. Butterfly model packages including model and winder will be sold at the site. Age groups for Butterfly event are under 11 and 12-17.

CROSSWINDS readers with the dreaded red X at issue renewal code No. 102 or lower can send $16 per year (4 issues) to Russ Brown at 4909 N. Sedgewick, Lyndhurst, OH 44124.

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