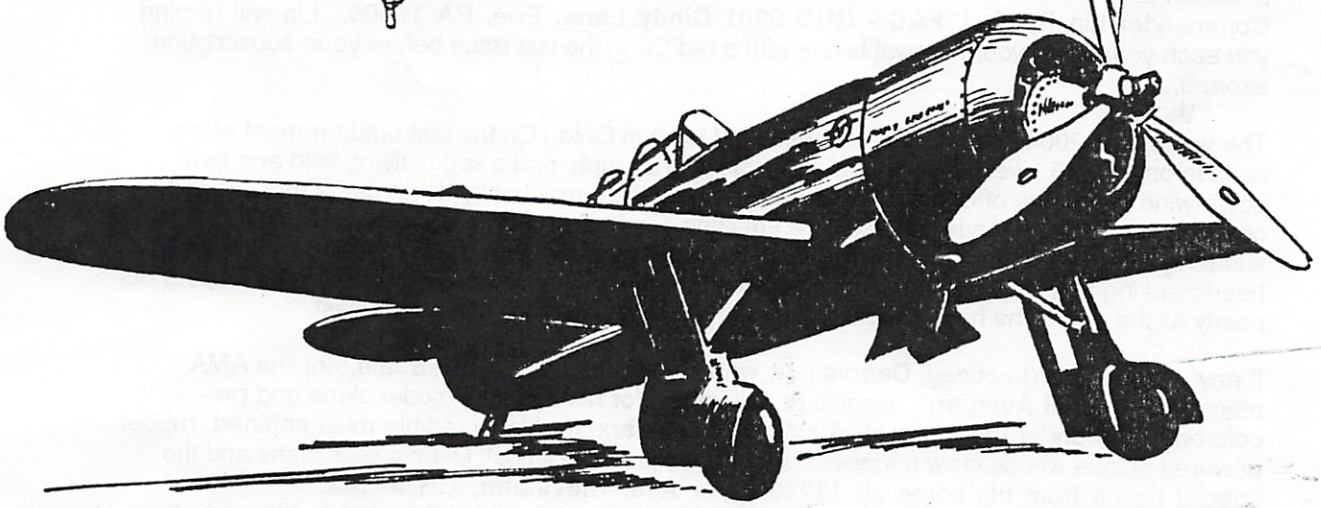
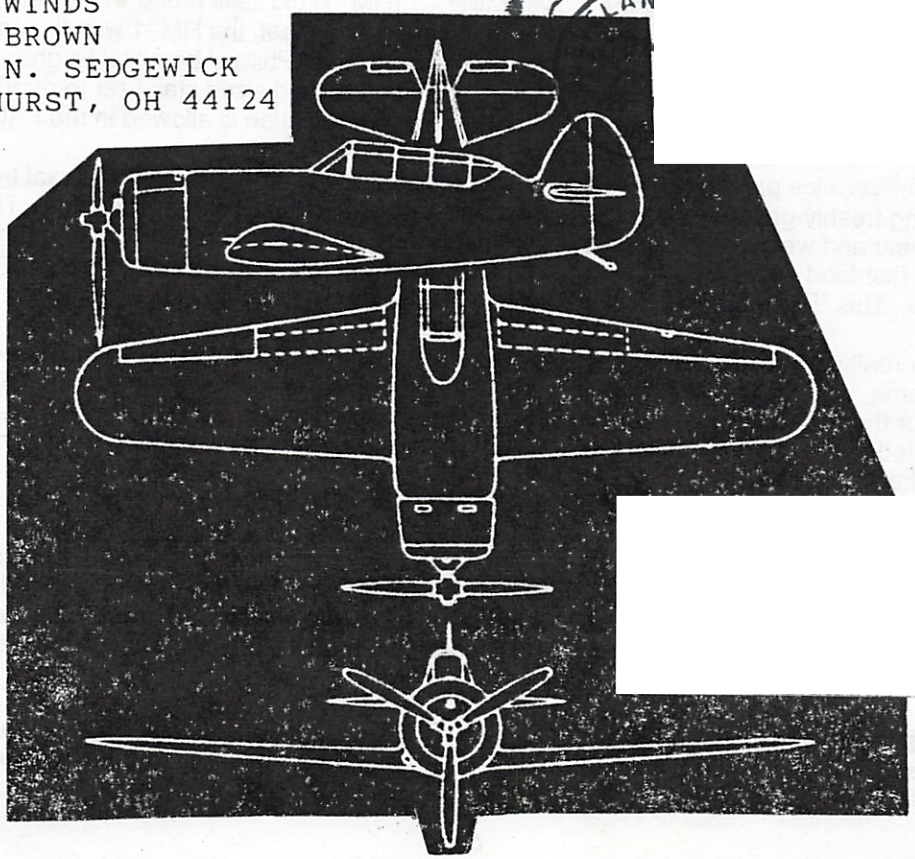
CROSSWINDS 109



MILITARY AIRCRAFT HM-1

CROSSWINDS
RUSS BROWN
4909 N. SEDGEWICK
LYNDHURST, OH 44124



44094+8476 01

Crosswinds Notes

For those of us who are new members of local FAC clubs, it is worthwhile to join the **National FAC** based in Erie, Pennsylvania in order to keep up to date on the latest model designs and events for our hobby. Their Flying Aces Newsletter is published every two months and is well worth the $15.00 yearly subscription fee. Send your AMA number, Name, Address and Club affiliation to:
Commander Lin Reichel, **FAC - GHQ 3301 Cindy Lane, Erie, PA 16506.** Lin will remind you each year when your renewal is due with a red "X" in the last issue before your subscription expires.

The weather in 2004 , so far, has not been kind to us in Ohio. On the first outdoor meet of the season on May 23 , we suffered wind gusts of up to 25 mph. and a soggy flying field and flew down-wind of a grove of rather tall trees which produced currents and down drafts that caused otherwise great flying models to do some amazing aerobatics. Some of them would climb well and suddenly descend as if on an elevator. Luckily, no one lost or damaged a model except for a heartbreaking mishap when a folding chair was blown into Dennis Norman's model box, wiping out nearly all the planes he had brought to the meet. Luckily, it didn't rain as forecast.

If any of you haven't noticed, **Dennis** now writes a regular column, **FF Scale,** for the AMA magazine, "**Model Aviation**". Dennis is well known for his beautiful model plans and pre-colored tissue under the name of "**Air Ace Models**" and for his incredible multi engined, rubber powered planes whose crew members even have moveable limbs! Dennis sells plans and the special tissue from his home at: **11216 Lake Ave. Cleveland, OH 44102.**
Nearly every flyer in the May meet got at least one Kanone in spite of the wind, but there were only eight events with enough entrants to make an official round.

The forecast on June 13 was dismal too, but luckily the very damp morning turned into a sunnier afternoon, but the wind was gusty most of the day. Each flight was held up for a few minutes while contestants waited for a "calm gust" for each launch. For the WW-I peanut mass launch, all the entries came to earth within three seconds, so Gordon Roberts, whose plane was the last one down, generously allowed another launch and then failed to get his Kanone!

The feature model in this issue, the Howell Miller - 1 (HM -1) did itself proud with its enlarged stabilizer by winning the Thompson race. (In the May 23'rd meet, the HM -1 with the scale stabilizer, was a bit erratic and was handily defeated by Geoff Phillips' beautiful Hughes Racer). It would appear that models with short tail moments need a good sized stabilizer to provide the leverage needed for good stability. Fortunately, this modification is allowed in the FAC rules.

Geoff Phillips, vice president of the CFFS, and his brother Allen, gave all of us a real treat by furnishing freshly grilled hot dogs with buns, mustard and ketchup right on the field. This was a really great and welcome idea, because most of us are too busy to break ranks and drive to the nearest fast food outlet. Geoff also gave us a couple of great flights with his beautiful Fokker Triplane. This "Flying Venetian blind" is a real blast to see in the air!

Another really great surprise was furnished by the new president of CFFS, Rich Weber of BLUR Race fame, who offered his beautiful red, white and blue iron-on patches with the **CFFS Stork Logo** for those of us who wear long sleeved shirts to ward off the sun. Of course, these can also be applied to tee shirts or jackets etc. Eight inch diameter transfers are $2.00 each and the 3" size for pockets etc is $1.00.
Contact **Rich Weber at 8305 Salisbury, Parma, OH 44129** for the transfers.

A message from Rich Weber: "If you haven't been to the field lately, you're missing a lot of fun, and a chance to get away from cutting the grass. Even if you don't have any models ready to fly, we'd love to see you there. Bring a chair, set it up in the shade, and talk about modeling; or pitch in and do some timing or spotting. With all those model airplane guys around, you know it will be a good time. "

CROSSWINDS readers with the dreaded red X at issue renewal code No. 109 or lower can send $16 per year (4 issues) to Russ Brown at 4909 N. Sedgewick, Lyndhurst, OH 44124.

HAWKS MILITARY AIRCRAFT HM - 1

In 1936 the Granville brothers of Springfield, Massachusetts, builders of the famous Gee Bee racers, received an order from Frank Hawks to build the fastest landplane ever. The result was "TIME FLIES", the most perfectly streamlined plane of its day . It was designed by Robert L. Hall and Howell Miller, hence the designation HM - 1 for the military version. The pilot seat and windshield of "Time Flies" retracted twelve inches by means of a $3.00 hydraulic jack so the fuselage contour was unbroken once flight altitude was reached, By October 1936, test flights were scheduled but Hawks had trouble on the two test flights, which was not due to either airplane or pilot. The first mishap was from a fur lined glove which dropped into the landing gear retracting mechanism, causing a jam. When attempting to land, the landing gear mechanism was washed out. On the next flight, high head winds caused Hawks to run out of fuel, and on landing, one of the three main wing spars was cracked along with other damage, which he could not afford to repair.

It is not clear why the Gruen Watch company did not offer to pay for the necessary repairs since they were part sponsor of the craft and the Gruen name was prominently displayed on the front edge of the NACA cowling. In any case, the plane was put in storage until August 1938 when it was purchased by Ed Connerton for conversion to a two place military job. However, the Army had specified since 1934 that their new fighters were to be all metal, and the HM-1 was plywood covered and only had performance comparable to the existing P-35. Furthermore, Lockheed was already in final design stages of the XP-38, so the HM-1 was not really in the running.

By late August, the HM-1 was ready for flights and Leigh Wade was selected to fly the plane to Cleveland for the Air Races. At the last moment, racing jets were installed in the carburator to keep the engine cool, resulting in excessively rapid fuel consumption. Wade flew a very steady race, coming in fourth at a speed of 249.84 mph. and nearly all the fuel was consumed by the R-1850 1,150 hp Twin Wasp engine in the 300 mile race despite the fact that Leigh kept the throttle far from open. The fact that the fighter had flown at more than 360 mph with ordinary jets before the race was no consolation.

When the plane was brought back to East Hartford, Earl Ortman was chosen as pilot to do more tests. Earl put the plane through a series of dives one day, once passing the 500 mph mark. On the last flight a flutter developed and the plane disintegrated in the air while Ortman parachuted to earth.

Howell (Pete) Miller, who was a highly respected and well liked designer, soon figured out a cure for the flutter, but there was no money for a corrected model. In 1939, Ortman testified that it had been the fastest and best plane he had ever flown.
In the meantime, 1939, Robert Hall began working for the Grumman Aerospace company and retired as its Vice President , but remained on excellent terms with the Granvilles. "Pete" Miller retired from working with Pratt & Whitney after his design work with the Granville brothers.

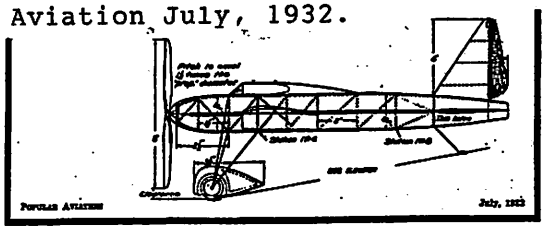
Reference: Historical write-up was from: "Popular Aviation" December, 1939 by Walter T. Bonney "The Story of the Gee Bee". Three views from R.S. Hirsch 8439 Dale St. Buena Park, CA 90620 @$3.00 / Dw'g. Photos were from Popular Aviation as well as "Aviations' Dare Devil Scienists" by Robert Mc Laren in the December 1938 issue of Model Airplane News and from "The Golden Age of Air Racing" Pre-1940 by S.H. Schmid and Truman C. Weaver (EAA). The model plan used for reference was "Time Flies" by Alan D. Booten from Alan Hunt's Plan Service, which originally appeared in "Air Trails" magazine but was not dated. (2/37).

Many thanks are due to Russ Brown, editor in chief and archivist for the CFFS for his valuable assistance in providing historical details, drawings and photographs of the "Time Flies" and HM-1 racers from his files.

S.T. Griebling - CFFS 2004

CROSSWINDS welcomes your contributions, text, and tales for a Joe Ott special issue including a full size 22½-24" w.s. "Junior" Low-Wing Monoplane two bit Old Timer from Popular Aviation July, 1932.

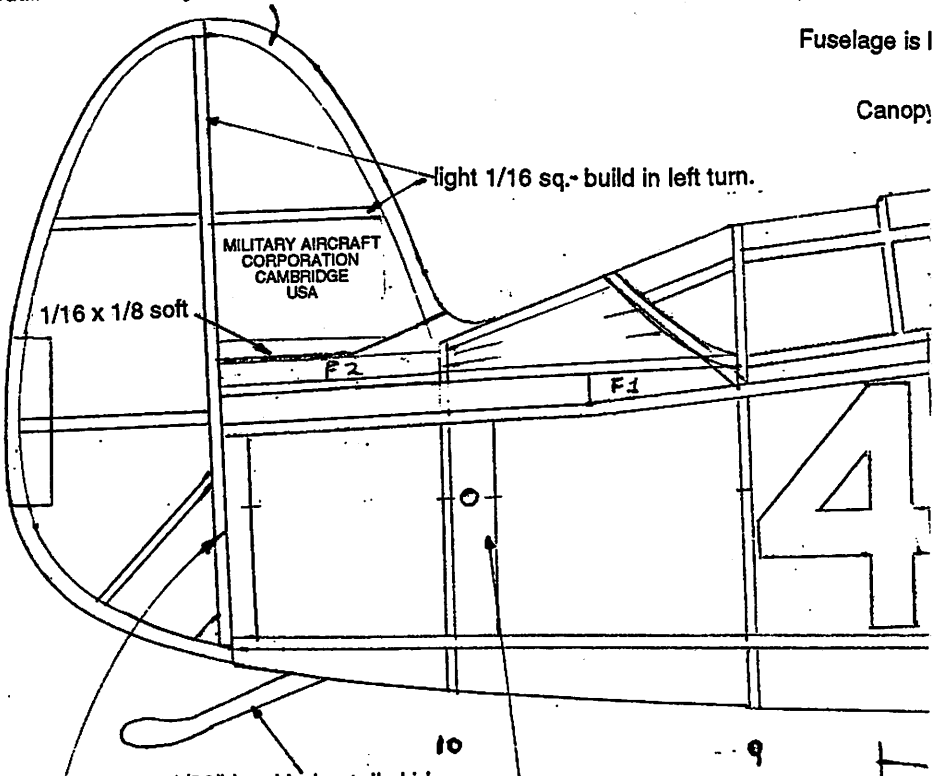
The "Junior" Low-Wing Monoplane
A Duration Contest Model



Rudder outline from two layers 1/20 x 1/16 wet bent around a form and "Titebonded"

Fuselage is l

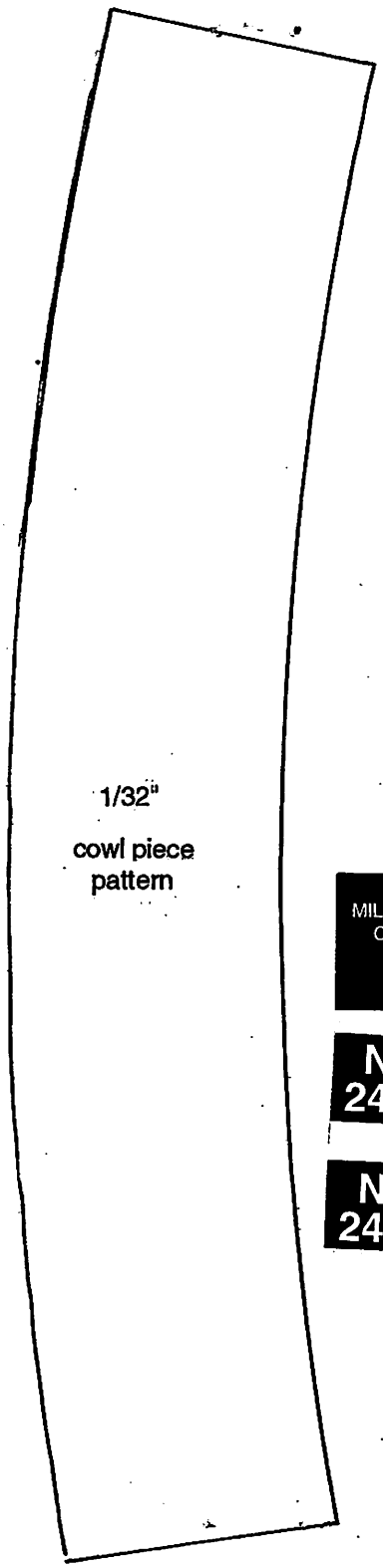
Canop



1/20" hard balsa tail skid

1/32 x 1/4" bass motor mount; drill for 3/32" dia .aluminum tube motor anchor

Attach rudder at stern post only, until trimming is complete.



1/32"

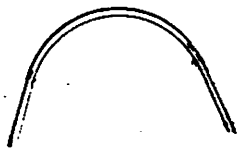
cowl piece
pattern

MILITARY AIRCRAFT
CORPORATION
CAMBRIDGE
USA

MILITARY AIRCRAFT
CORPORATION
CAMBRIDGE
USA

NX
2491

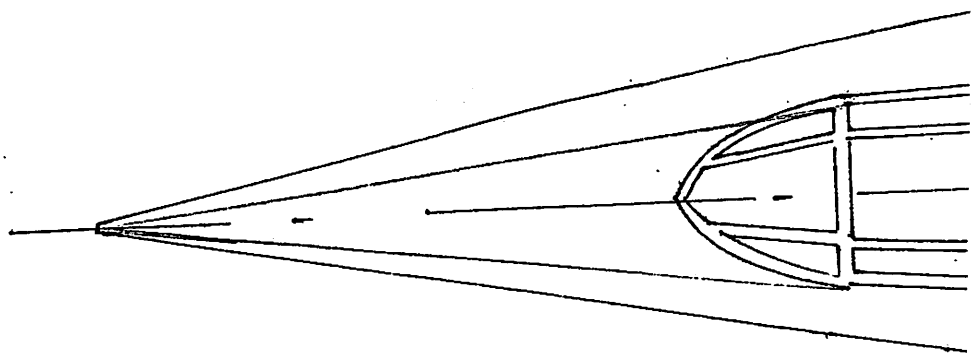
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1/32 sq. bass bows

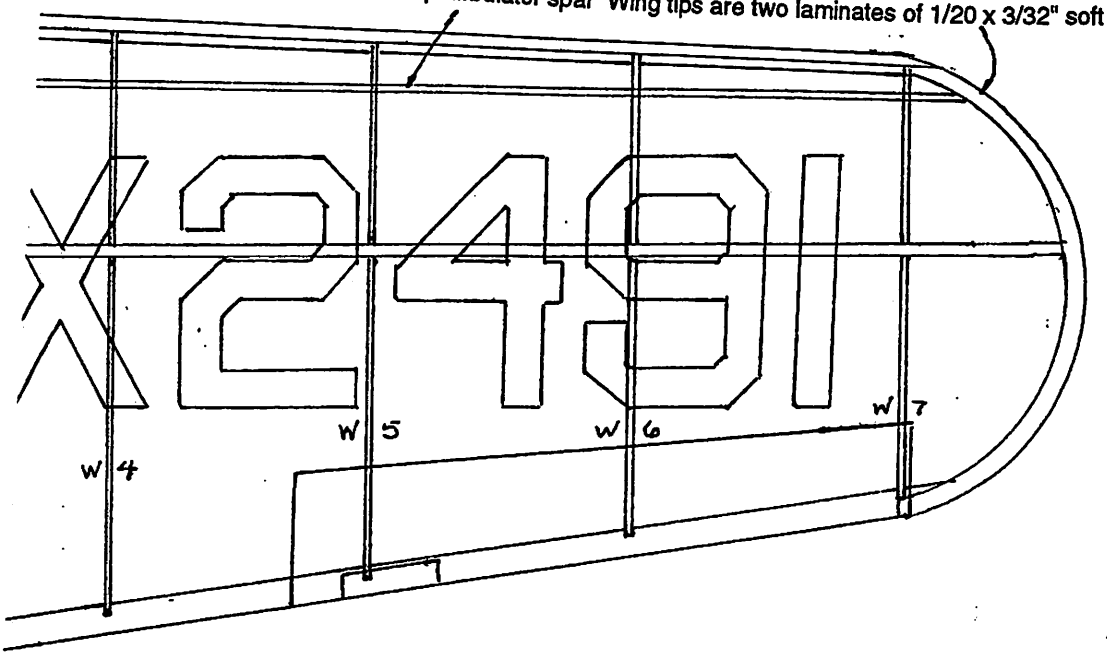
Bow pattern - 4 required if used

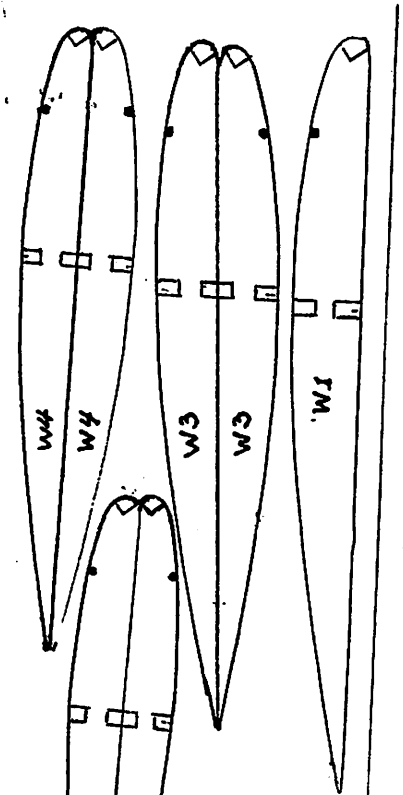
Use a 7" balsa prop with a free wheeling device. P/Dsuggested is 1.5/1.



Dihedral 2" for each wing. Washout both wings 1/16" .

medium 1/20 sq. turbulator spar Wing tips are two laminates of 1/20 x 3/32" soft

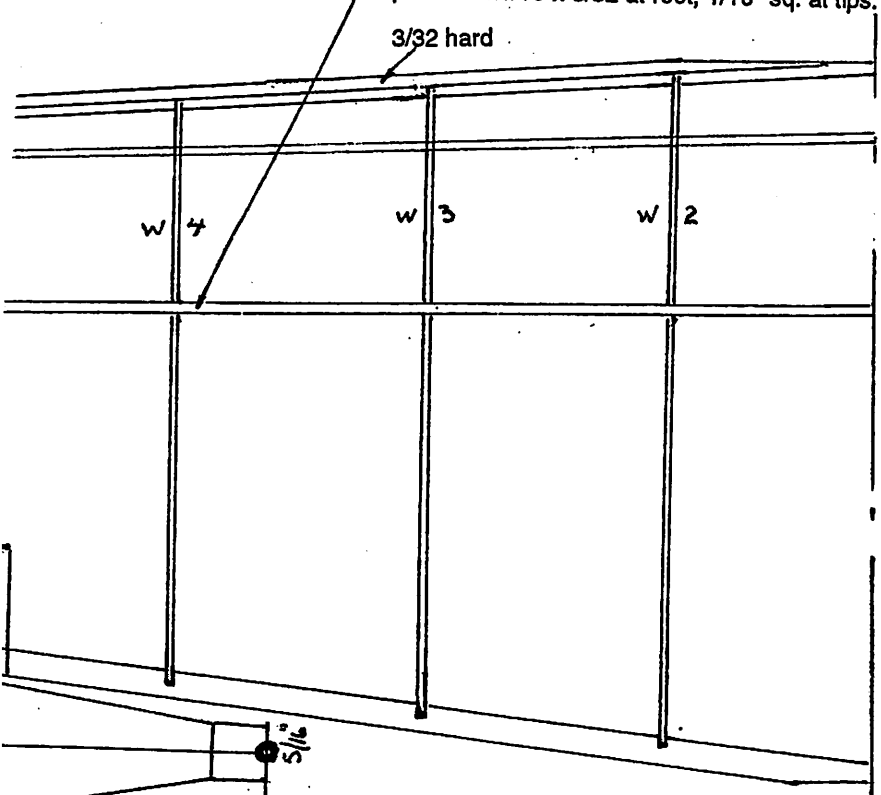


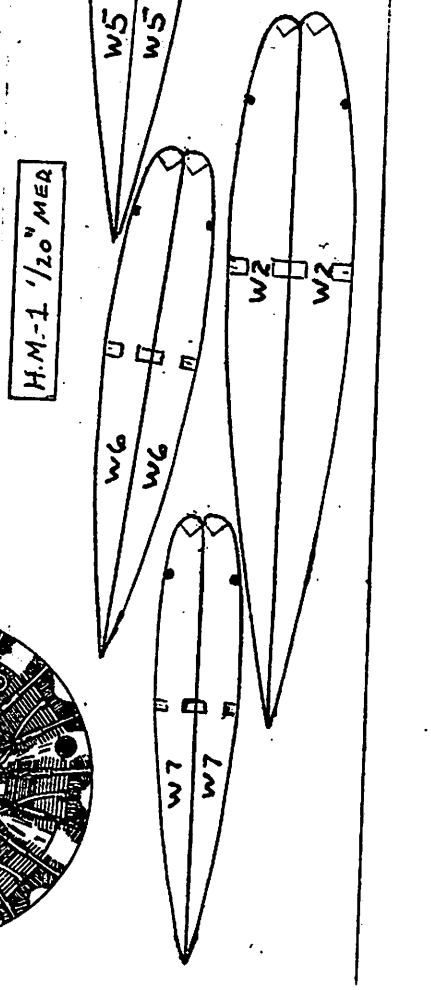


HAWKS MILITARY AIRCRAFT HM -1

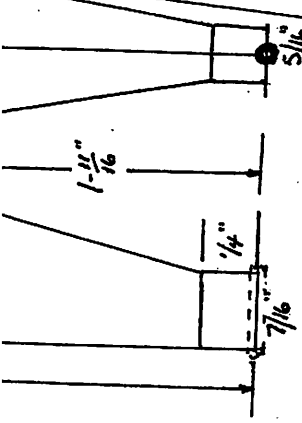
two spars - soft1/16 x 3/32 at root, 1/16" sq. at tips.

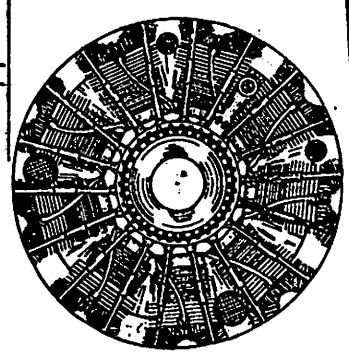
3/32 hard





H.M-1 1/20" MEA





The Model HM - 1

This is the third oval / round section fuselage plan I've drawn that features semicircular uprights in place of the usual sticks in an otherwise conventional box type fuselage. As before, the longerons serve as stringers at the "corners" of the box. In order to make the right and left fuselage sides as mirror images you will need to grease the fuselage plan so the paper will become translucent in order to build the left side.

All the uprights are to be cut from 1/32" medium balsa and inserted just as you would standard stick uprights. When the two sides are completed, join them at the 1/16"x 1/8" stern post after sanding the stern posts with a little taper so their rear ends are about 1/32" thick. Lie up the fronts of the frames carefully, then cement the stern posts together and let the cement set. While they are setting up, cut out the two formers #3 and laminate them with their grain crossing. All the stringer notches should be pre-cut in former #3 after they are laminated so they line up perfectly. Note that only the four longeron notches and the top and bottom center notches are 1/16" square. All other stringers notches are 1/20" square and are to be pre-cut into former #3 only! Cut out the top and bottom formers 4T, 4B, 5T, 5B etc. but cut only the center, 1/16" square, stringer notches in them at this time.

Insert the front ends of the longerons into the appropriate notches in former #3. The fuselage frame should now be symmetrical and true. Insert formers # 4 T and #4 B and when dry, insert the rest of the formers in turn, working back toward the tail. Note that the top of former #9T is slanted toward the rear. Its angle is determined by the little insert F1. When the top and bottom formers are in place add the center stringers, which are 1/16" square, medium balsa. True up all the formers at this time so they are vertical (except for #9T). Next, add the center side stringers. You will note that all other stringers are medium 1/20" square and that their location in the formers is suggested as a light dash instead of a definite notch. I have done this, because I've found that it is much more reliable for stringer alignment to mark the stringer notches on the actual structure than it is to pre-cut them.

The stringers directly above F1 should be carefully spaced above the longerons with a temporary piece of 1/8" sheet so it will leave room for insertion of the stabilizer. These stringers extend from former #6 at the bottom edge of the canopy to the tip of F2.

Insert F3s for the wing incidence setting and then the wing saddles. Make sure the saddles will be positioned so you can sand them to blend in to the fuselage contour. The actual airfoil contour will have to be "cut and try" fitted in the saddles once the wing is complete, in order to get a perfect fit to the wing airfoil with its dihedral.

Add the 1/20 square stringers, cutting their notches in the formers by referring to the precut notches in Former #3 so you get nice straight stringers from front to rear. Stringers from #9 to #10 are butted to both #9 and #10 since notches would weaken the formers too much.
Once all the stringers are in place, fit spacers F4 over the basswood motor mounts. It is best to drill from one side to the other as you insert F4s one at a time in order to get the holes for the 3/32" aluminum tubing lined up perfectly.

Sand all the formers, between stringers, with fine sandpaper wrapped around a round stick about 5/8" diameter to avoid the "starved horse" look. Also sand the wing saddles and F2 to blend to the fuselage contour.

I found it necessary to make the nose assembly as light as possible, because the nose moment of this plane is rather long in relation to the entire fuselage length. A heavy cowling will move the C.G. too far forward. Use light balsa for all the cowling pieces, but you should use a 1/32" plywood disc for the dummy motor and nose button support. It should be a nice fit inside the cowl opening. I recommend a 1/4" thick key so you'll have plenty of room for down thrust and side thrust adjustments.

If you have a lathe, or something you can use as a lathe, it is wise to use it to make the cowl formers perfectly circular. Otherwise, just cut them a bit oversize and sand them to the line to get them truly circular.

All the printwood patterns on this plan can be transferred to balsa by the application of solvent (acetone) to the paper which should be glue-stick tacked, face down, to the balsa sheets to keep them from shifting.

Use the pattern on the plan to cut the 1/32" cowling pieces and butt- join the sections of it with model cement. Make sure the grain runs crosswise so the cowl sheet is easy to bend, then position six equally spaced 1/16" x 1/8" x 1-1/8" spacers on the inside of the cowl sheet. These will space formers #1A and #2 apart so they are parallel. When its dry, carefully bend the cowl sheet around formers #1B and #2 and glue it together with "Titebond" or other water based glue to extend working time. You may want to do this in stages . I suggest carefully wrapping the cowl piece with rubber strip when making the final joint so it will be a perfectly tight butt joint. Hold it together from the inside with tape so the joint will line up.
Once the cowling is set, sand it to shape with progressively finer grits down to #400 grit, then give it two to three coats of dilute sanding sealer, sanding between coats. Two coats of black Krylon gloss spray looks good as the final finish.

The flying surfaces are conventional. They feature laminated outline tips made from soft 1/20" sheet, soaked in water, bent around a warm, round form such as a hair curling iron or soldering iron at low voltage or other round heater, and allowed to dry against a curved form. The four wing spars are cut from 1/16" sheet and tapered from 3/32" to 1/16". The turbulator spars are medium 1/20" square. Note that the trailing edge of the wing is notched for the ribs. Use a small file to cut all the 1/20" notches in the various parts. After the initial test flights, and a few gound hits, I found that the #2 wing ribs were bent, so I removed some of the covering and replaced them with hard 1/20" sheet ribs in order to resisit the compression. I suggest you select hard balsa or at least 1/16" stock for ribs #2 for this reason.

Once the wing is complete and the dihedral has been set, use patience and gradually sand or file the opening in the wing saddles to try/fit the wing into the fuselage opening. Do not alter the F3 pieces since they determine the incidence angle of the wing.

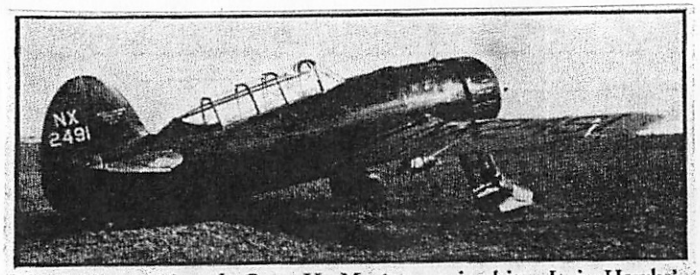
Cover the fuselage and rudder with black tissue and the wings and stabliizer with yellow. An intense orange-yellow can be achieved with deep yellow-orange "Nu-Pastel" chalk applied to both sides of yellow Esaki tissue. This is about the shade of "Berol" spanish orange markers. Cut the black numbers/letters for the wings from black tissue and use yellow trim strip for the yellow numbers on the fuselage.

I found that the surface of the chalked tissue became quite rough after it was doped, so I sanded it carefully with 400 grit paper. Do this with great caution, because the roughness disappears very quickly and you can sand right through the tissue in a heart beat!

Lettering on the rudder and cowling is to be yellow on a black background. Cut the labels from the plan and swipe them with a yellow highlighter and affix them to the model with glue stick. These labels were generously furnished by my daughter, Margi Griebling-Haigh, through the use of her "Adobe Illustrator" computer program and a laser printer. To make the labels less obvious, carefully blacken their cut edges with a "Sharpie" pen.

My completed model, without rubber, weighed 24.3 grams and required four strands of 1/8" rubber for power. I set it up for a left turn, as with all low wing models. It also required a 1/16" shim for right thrust and 3/32" shim for down thrust and a small amount of clay on the tail skid to correct the C.G. If you keep the cowling light you may not need clay in the tail!

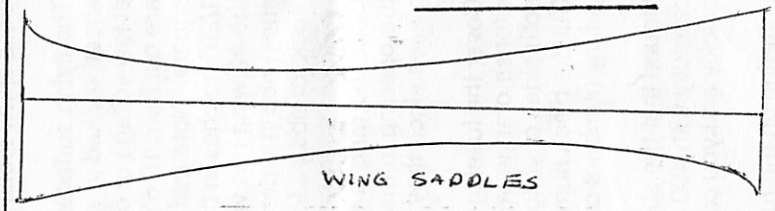
S.T. Griebling - CFFS May, 2004

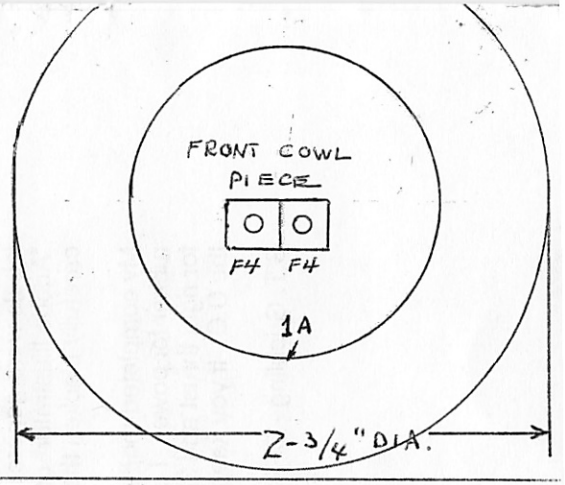


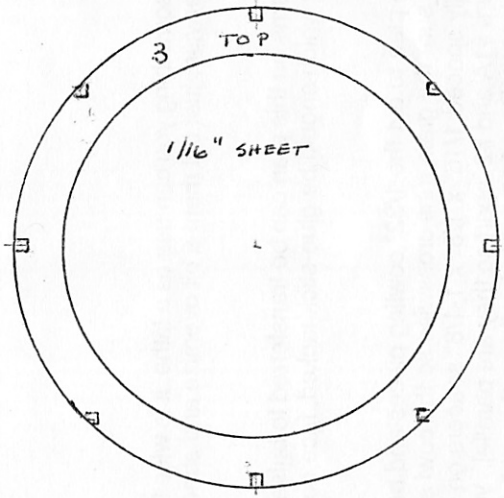
The Military Aircraft Corp H. M. 1 pursuit ship. It is Hawks' rebuilt "Time Flies" with a twin Wasp 1000 hp. engine. (Winkler)

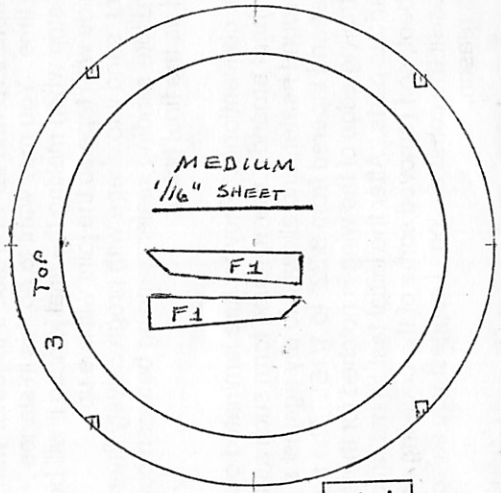
H.M.-1

SOFT 1/4" SHEET



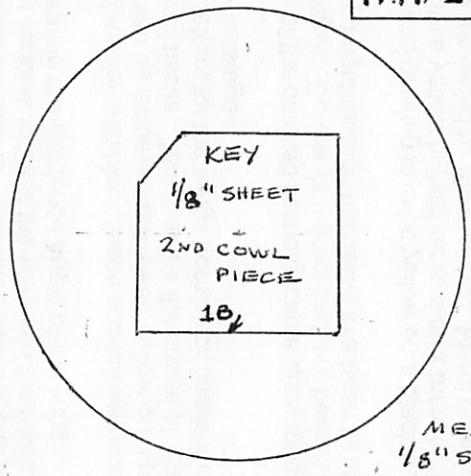


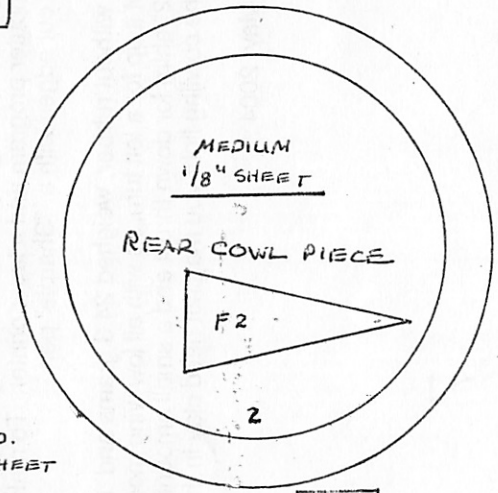




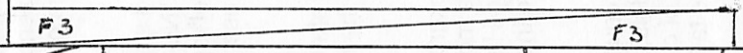
HM-1

H.M.-1

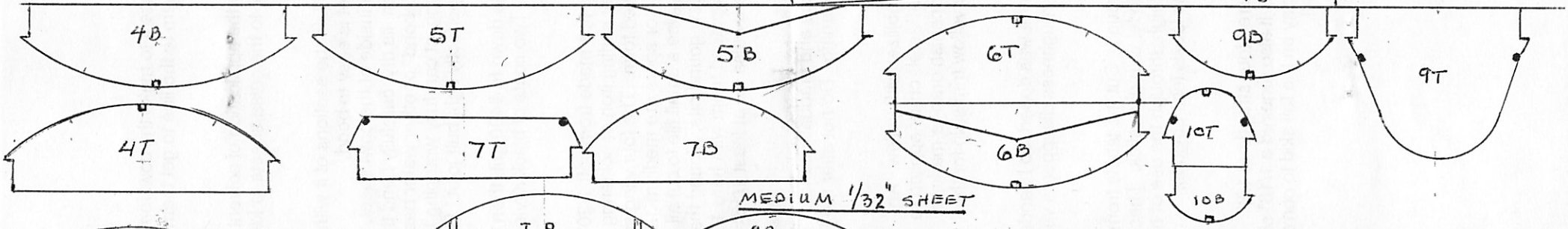




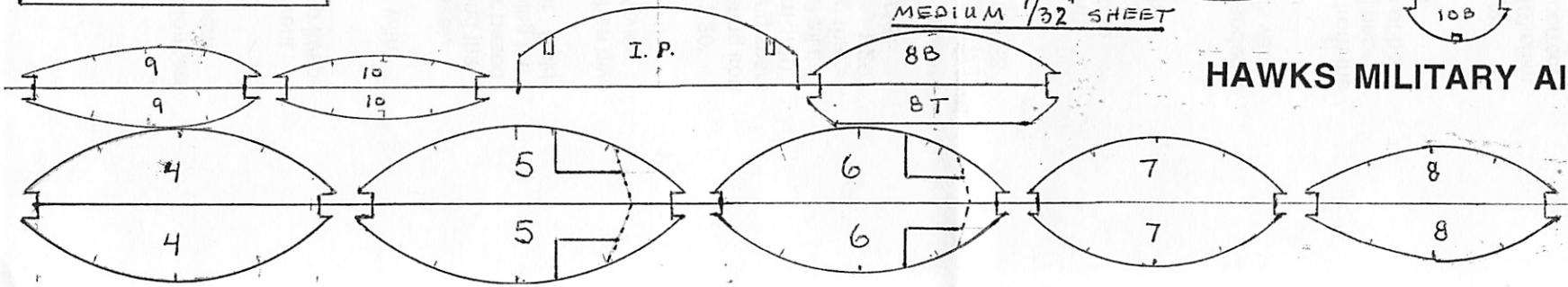
MED.
1/8" SHEET



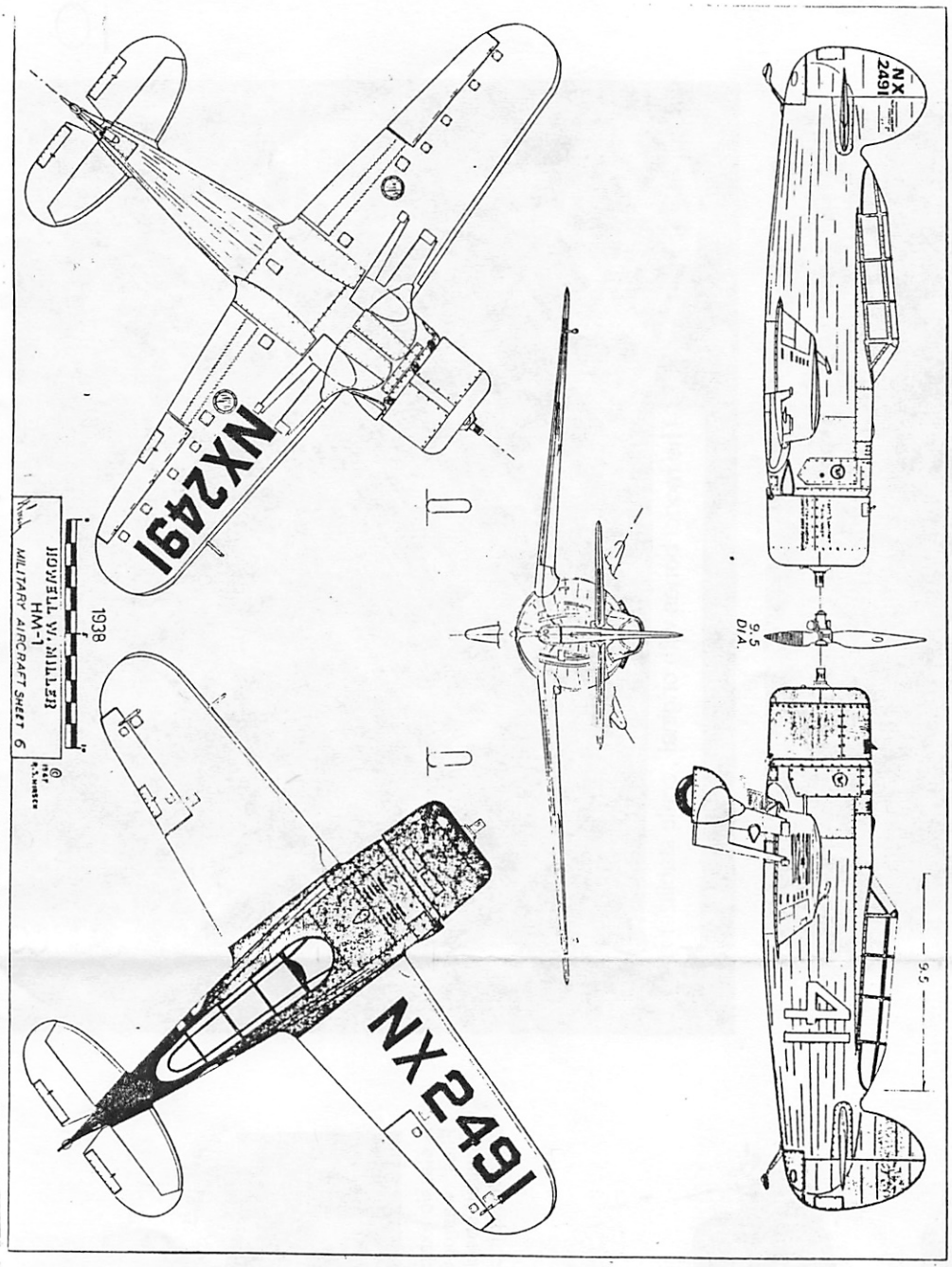
HM1

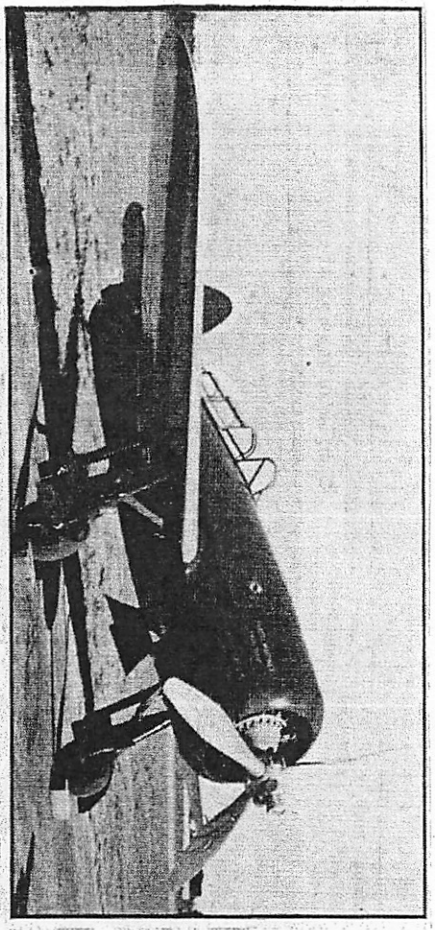


MEDIUM 1/32" SHEET



HAWKS MILITARY AIRCRAFT H.M. - 1

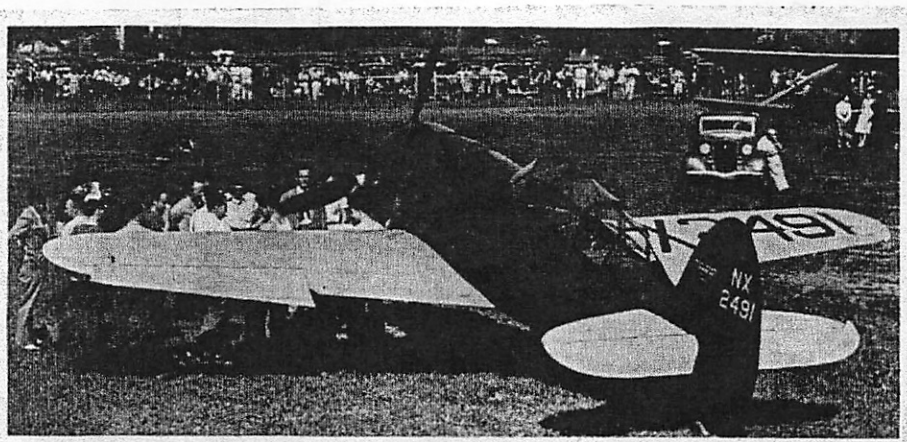




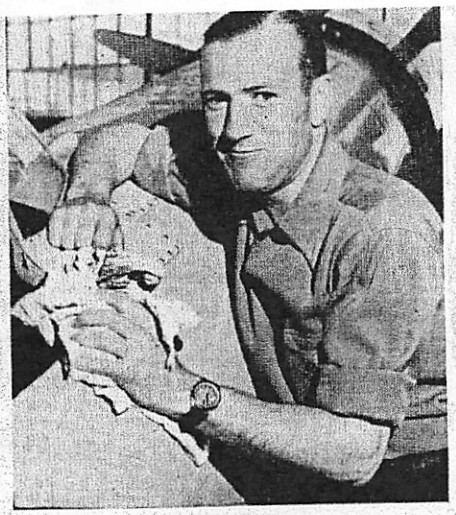
The Miller H.M.-1, (old "Time Flies") rebuilt for the army competition trials. (Kuster)



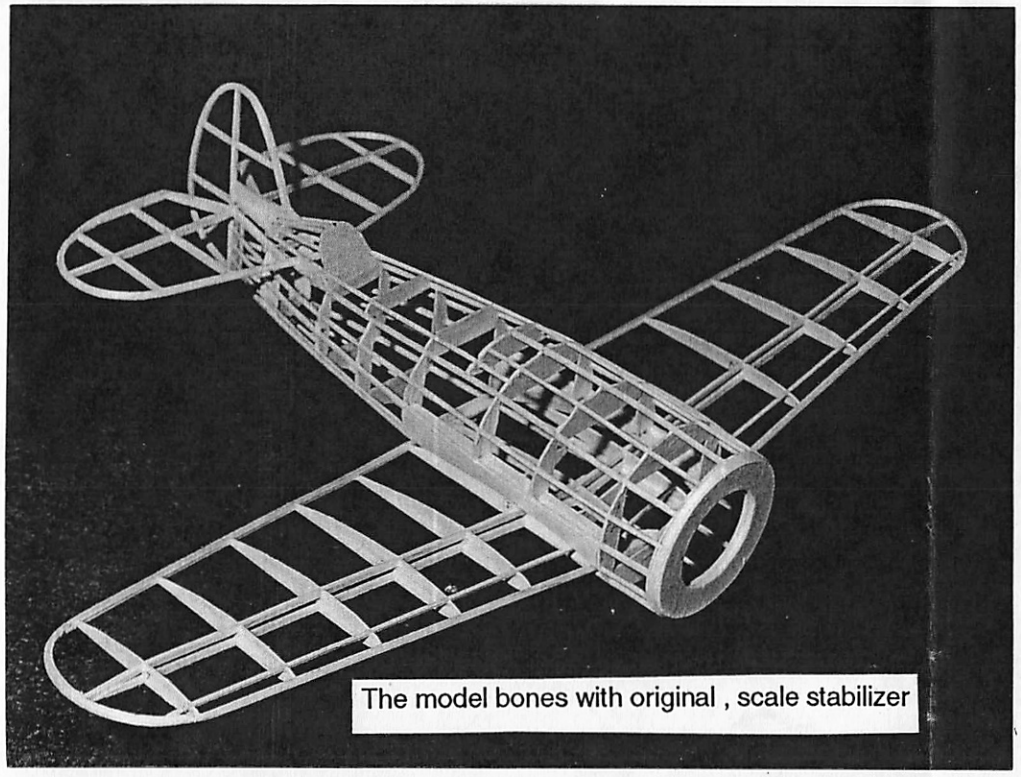
Howell Miller



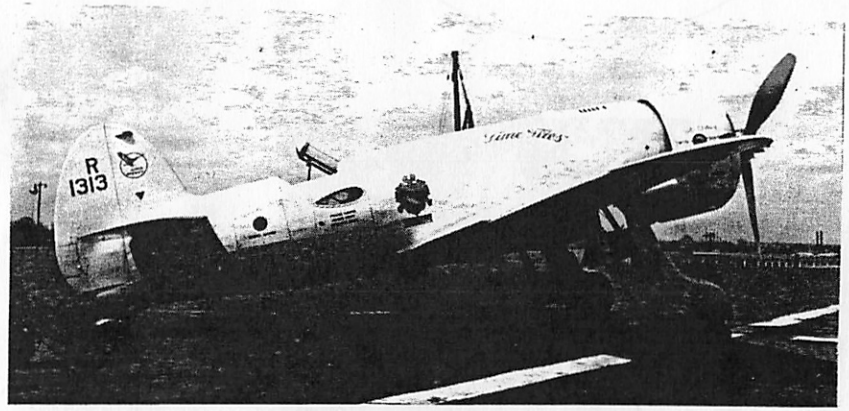
Above military ship was evolved from Frank Hawks' old "Time Flies", crashed later during tests.



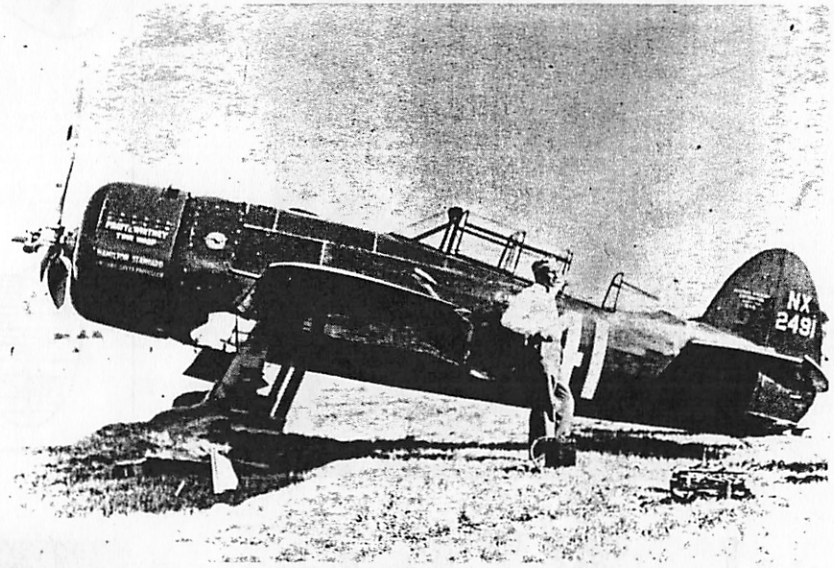
Earl Ortman bailed out of military version of "Time Flies" during test flight.



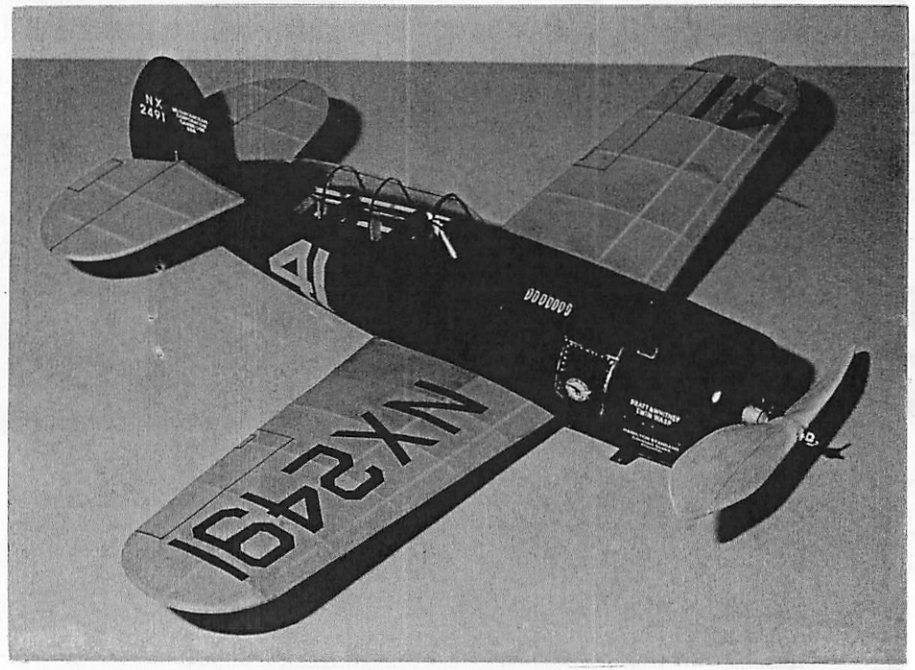
The model bones with original , scale stabilizer



A classic example of streamlining — Frank Hawks' "Time Flies" was powered by a big R-1830 Pratt and Whitney which required special permission from the U.S. Army Air Corps to use. Cockpit cover shown in open position.



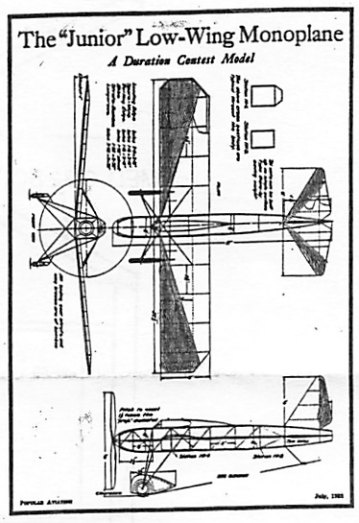
"Time Flies" modified to Military Aircraft HM-1 and flown by Leigh Wade in the 1938 Thompson, finishing fourth at 249.84 mph. Aircraft was later destroyed during a test flight.



The completed model with scale stabilizer
Enlarged stabilizer on the plan in "Crosswinds" improved performance

Weights of Model Plane Tissues

Type Tissue	Source	Width (inches)	Length (inches)	Grams per Square Foot
Early Bird	Micro X	17.75	23.5	1.166
Ganpi	Aiko - Chicago	32	20.5	.963
Ganpi	Micro X	32	20.5	.992
Ganpi	Loucka	18	24	1.055
Special Colors from California (JCI)				
Olive	JCI	17	23	1.296
Silver	JCI	17.25	23	1.277
Brown	JCI	17	22.625	1.247
Esaki Type Tissues				
White Esaki	D. Reese	18	23.75	1.21 (1.14 on 9/27/02) (1.19 on 4/7/04)
Blue Esaki	D. Reese	18	23.75	1.16
Green	Glen Campbell	18	24	1.14
Orange	" "	18	24	1.14
Black	" "	17.75	23.75	1.24
Bright Red	" "	17.75	23.625	1.25
Yellow	" "	17.625	23.625	1.17
"New "Japanese Tissues				
Orange	Peck Polymers	17.875	23.875	1.27
Yellow	Micro X	11.625	17.5	1.15
Green	Micro X	11.875	18	1.24
Blue	Micro X	11.875	18	1.11
Easy Built Models Tissue	(weighed 9/27/02)			
White		20	30	1.69
Royal Blue		20	30	1.68
Silver		20	30	1.82

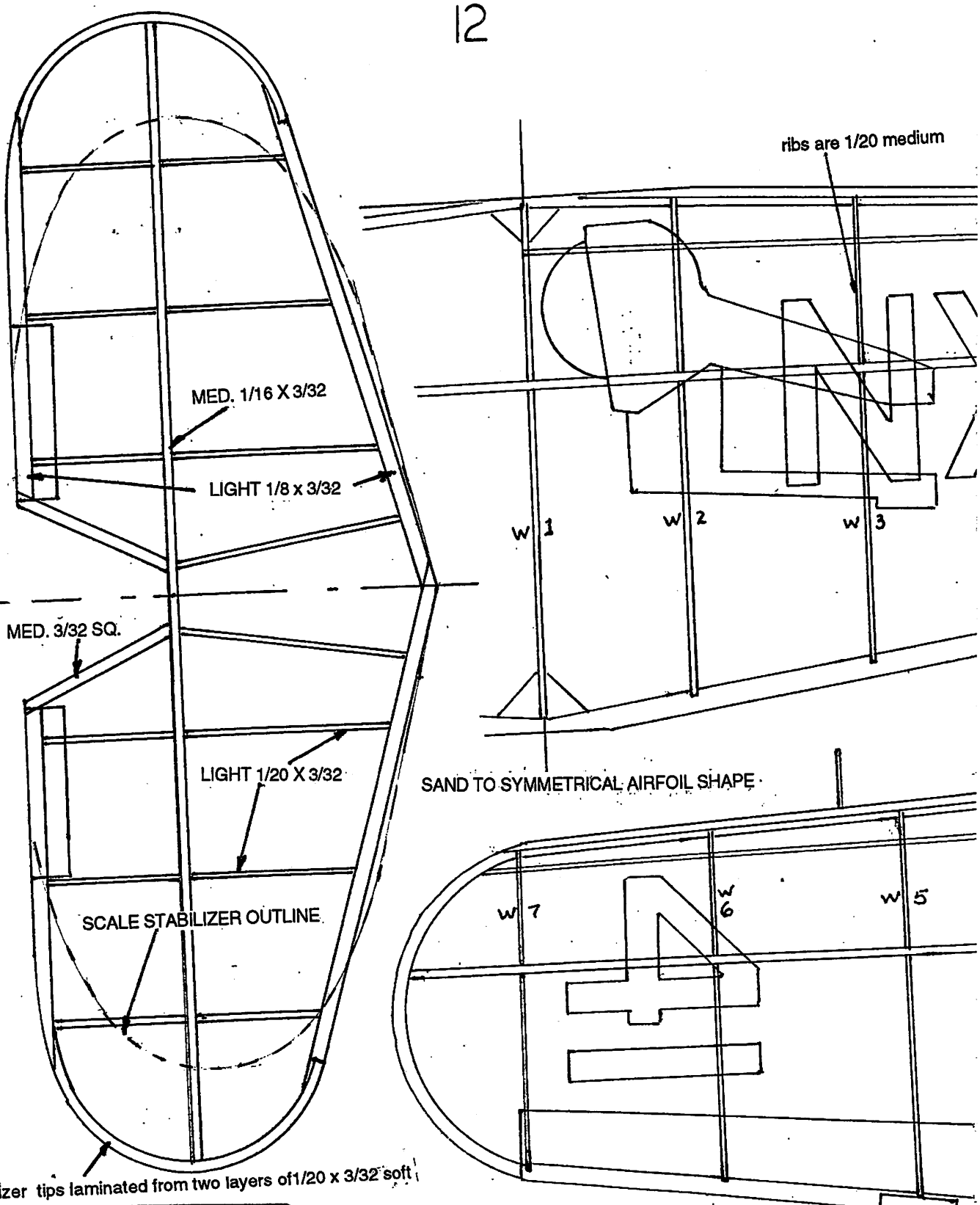


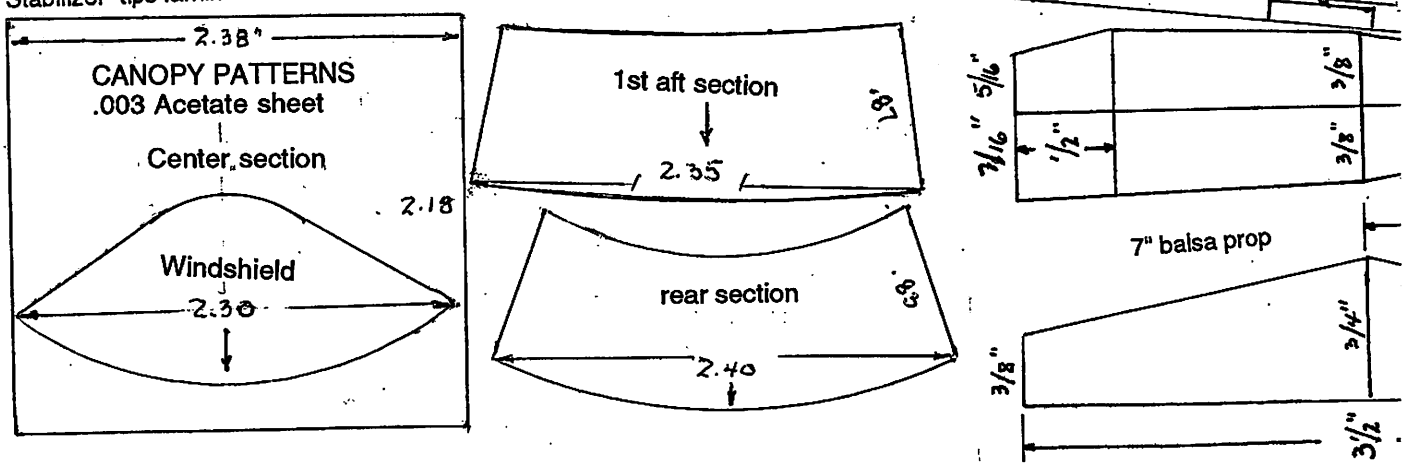
Additional weight* per square foot by application of the following materials on white (Reese) Esaki tissue :

Silver Krylon	.262 grams
Silver Floral spray	.495
Clear Krylon - 2 light coats	.247
Blue Nu-Pastel chalk - one side only	.135
Blue Nu-Pastel chalk - both sides	.187
Berol Marker - three passes - medium blue	.177

* Weighings done by Dr. Vernon Neff on an analytical balance sensitive to .0001 gram. Tissue samples were 5" x 5" . The weight differences between bare tissue and treated tissue were multiplied by 5.76. (144/25).
Note - The silver floral spray, although heavy, gave a much better appearance than silver Krylon on bare tissue.

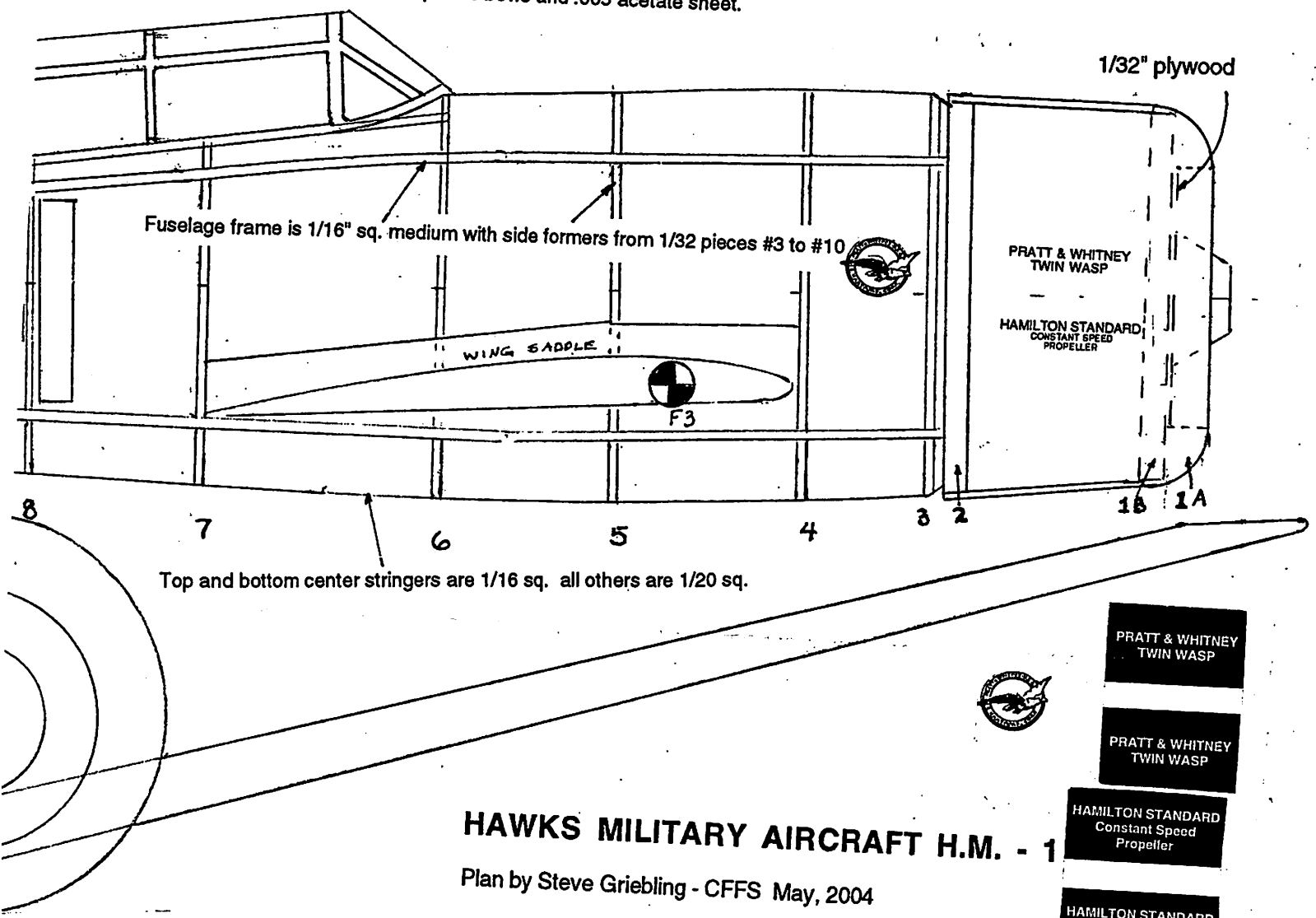
S.T. Griebling 11/20/00, updated 9/27/02 , 10/01/02 and 4/7/04


ribs are 1/20 medium
MED. 1/16 X 3/32
LIGHT 1/8 x 3/32
MED. 3/32 SQ.
LIGHT 1/20 X 3/32
SCALE STABILIZER OUTLINE
W 1
W 2
W 3
W 4
W 5
W 6
W 7
SAND TO SYMMETRICAL AIRFOIL SHAPE
Stabilizer tips laminated from two layers of1/20 x 3/32 soft


2.38"
CANOPY PATTERNS
.003 Acetate sheet
Center section
2.18
Windshield
2.30
1st aft section
1.8"
2.35
rear section
3.8"
2.40
3/16" 5/16"
1/2"
3/8"
3/8"
7" balsa prop
3/8"
3/4"
3/2"

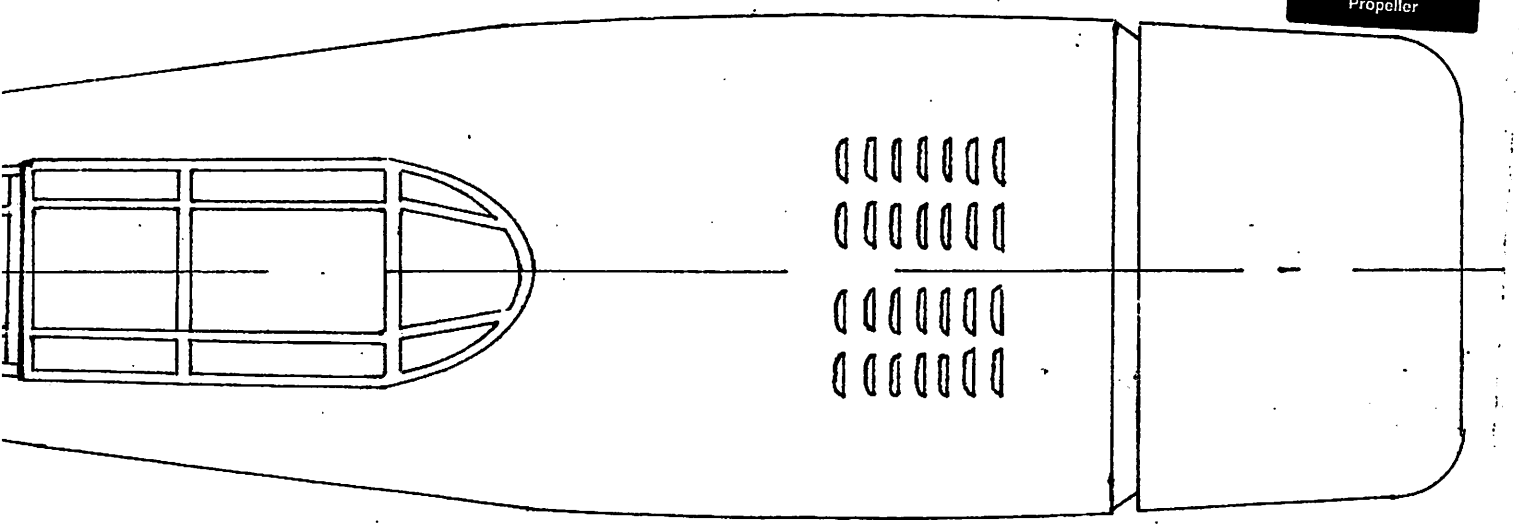
black with yellow letters; flying surfaces are Cub yellow with black lettering.

/ can be vacuformed or built up from 1/32 sq. bass bows and .005 acetate sheet.



HAWKS MILITARY AIRCRAFT H.M. - 1

Plan by Steve Griebling - CFFS May, 2004



Contests - not Lorain Community College (CFFS) meets

Erie Model Aircraft Association:

2004 Contest calendar:
All meets at Prangmore Aerodrome - Millfair Rd. Erie, PA.

August 7, Saturday -10:am to 5:pm - - 30th Annual Great Lakes Scale Contest
October 2, Saturday - 10:am to 5:pm -- 32nd Annual Midwest Scale Contest & Banquet
Fees: $10.00 per contestant - flies any and all events; $1.00 for Juniors.
The ten most contested events will have prizes. Kanones to all events that qualify.
The Erie Model Aricraft Association will honor the year's top achievers at the banquet with a Grand Champion Award and and Endurance Award.

Events at each Contest:

FAC Rubber Scale	High Wing Peanut Scale
FAC Peanut Scale	WWI Combat
Golden Age Civil Scale	Modern Civil Scale
FAC No. Cal .Profile Scale	FAC Dime Scale
FAC Embryo Endurance	FAC Old Time Rubber /Stick
FAC Two Bit O.T. Rubber*	Phantom Flash/ R.O.G. Types
Thompson/Greve Combo Race	

*If your model qualifies for both Two-Bit and O.T. Rubber you may enter as either, but not both.

A Proposal:

Geoff Phillips (CFFS) has proposed by e-mail that FACers consider the following **one design events** and pass on their comments to him eiher by e-mail , phone or snail mail:

1. AT6 Dave Livesay Plan - (canopy and plan are available thru Rich Weber of CFFS).
2. Fokker Dr 1 Triplane - any size - any plan.
3. WWII design Air racers flown between 1945 and 1977 to include such as the Bearcat, P38, P40Q, DH Mosquito, P39, P63, Hawker Sea Fury, F2G, P51, etc.

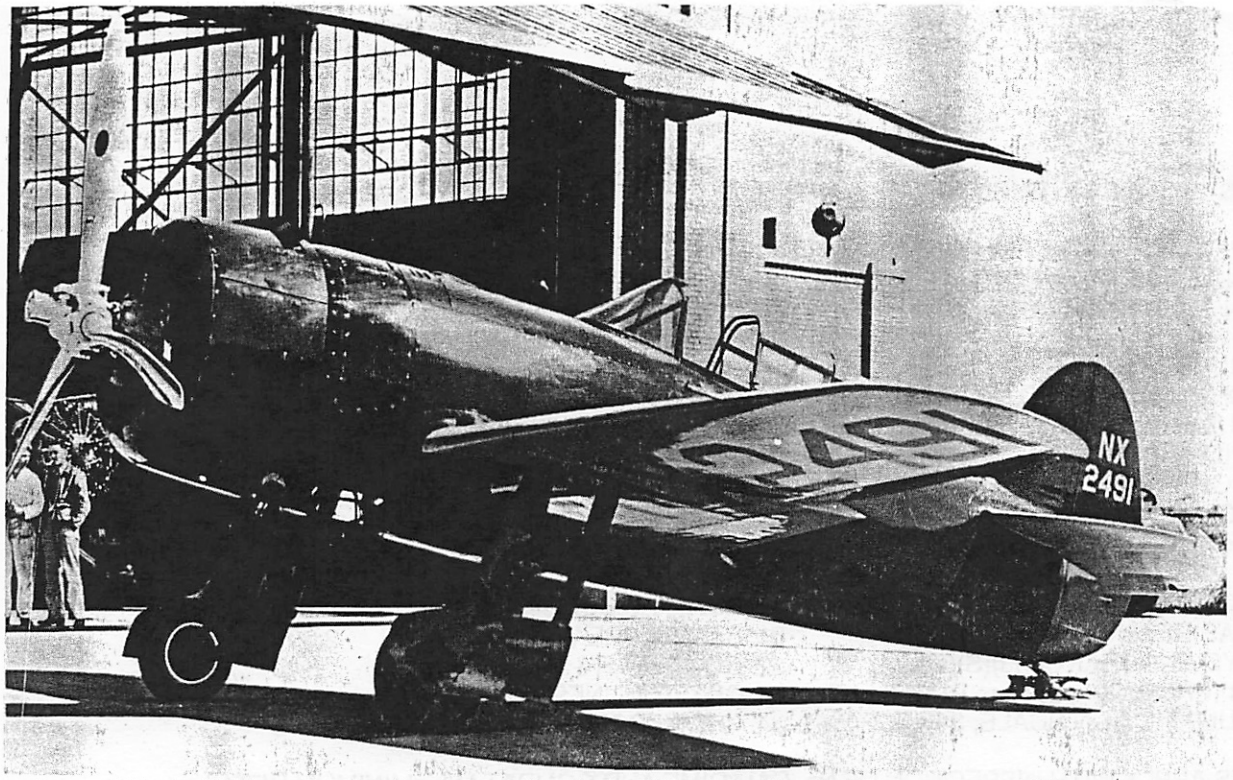
Please present your thoughts to Geoff at geoffsphillips@msn.com or
phone him at (216) 518-0964 - or - snail mail : 13527 Thraves Ave. Garfield Hts., OH 44125.

Other Contests:

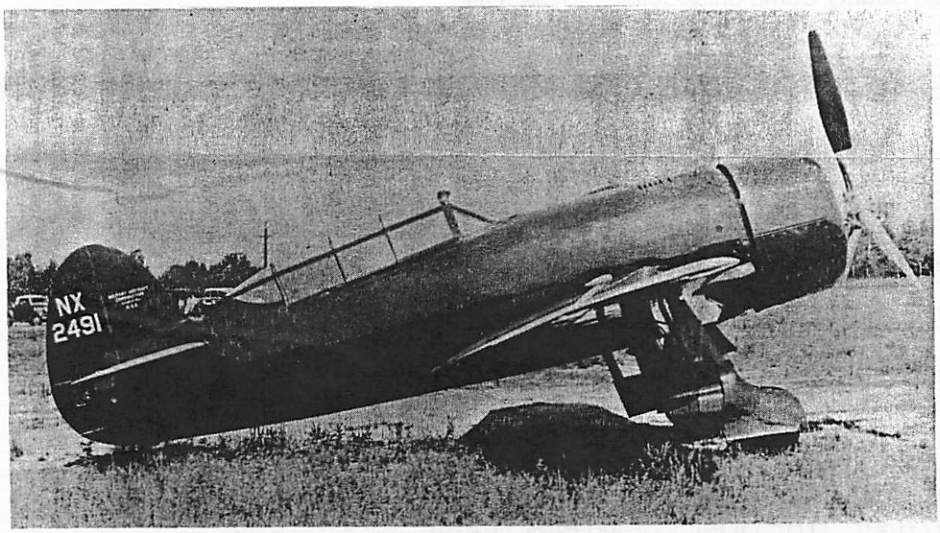
July 16 - 18 FAC Nats - Lin Reichel CD - 3301 Cindy Lane, Erie, PA. 16506 (at Geneseo, NY)
Aug 2-6 USOC/AMA National Championships Phil Sullivan CD - (765) 640-2921 (at Muncie)
Aug20-22 NOFFA FF Contest, CD - Rudy Kluiber (216) 226-6838 (at Muncie)
Aug 27-29 Empire State Championships CD - John Caris (814) 362-7789 (atGeneseo)
Aug 28-29 Aeronuts Midwestern State FF Championships CD- Chuck Markos (847) 945-9225 (at Muncie)
Sept, 11-12 COFFC FF Contest , FAC Outdoor Championships CD - Gene Bowers (614) 436-4120 & Von Rottensox (at Muncie)
Sept 13-17 SAM Champs CD J.P. Kish 22 Pine St. Homosassa Fla, (352) 382-1425 or e-mail catroper@tampabay.rr.com (at Lawrenceville, IL)
Oct. 2-3 Fall Festival FF Contest (Thermaleers) Bob Mattes (636)447-9580 e-mail rrmattes@wans.net (at Muncie)
Oct 9-10 2nd Annual Ted Dock Memorial FAC Contest CD - Lonnie Kinder (765) 945-7626 (at Muncie)

Other Events of Interest:

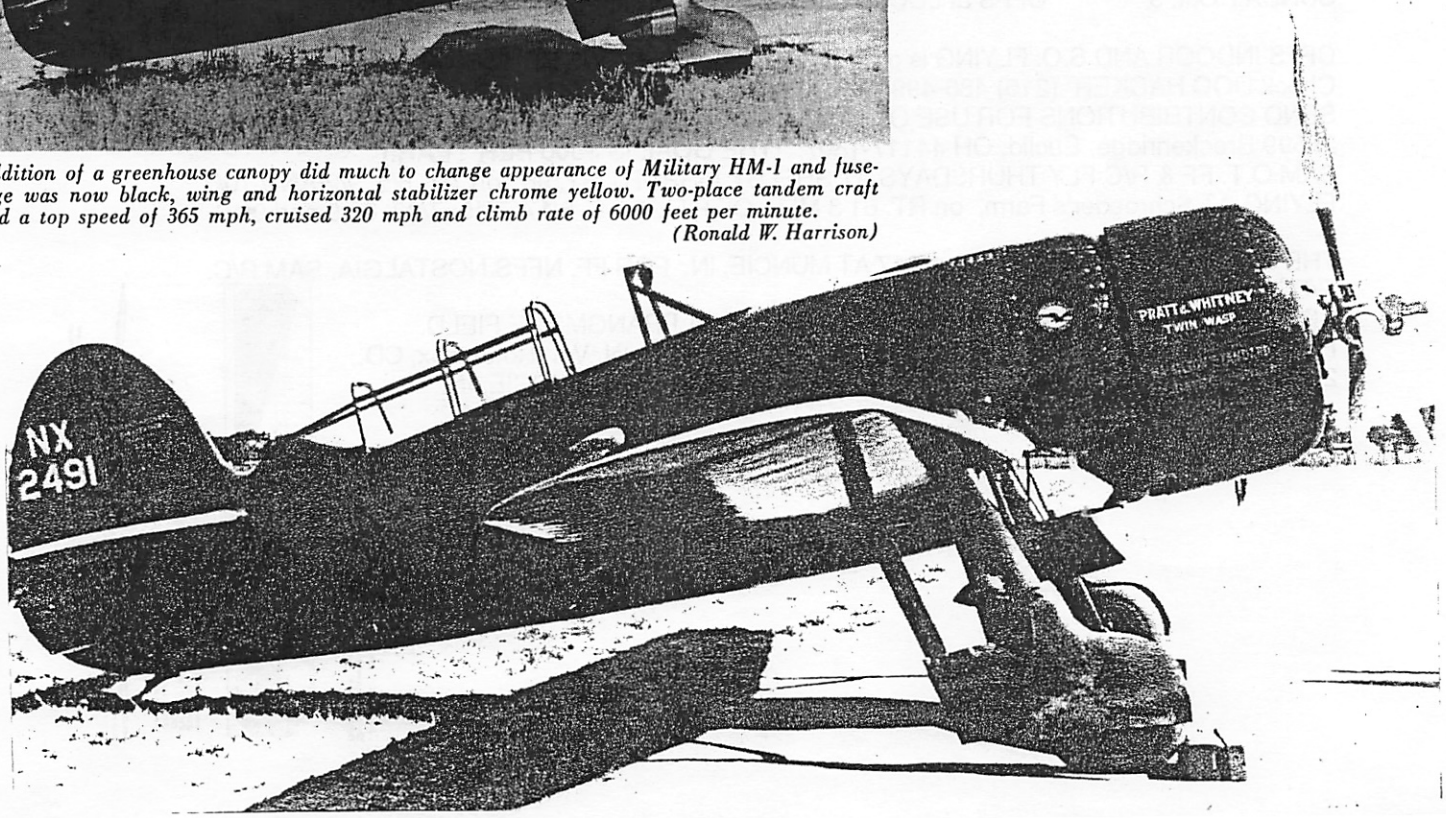
June 26-27	WACO Fly-In at Mt. Vernon, OH Wynkoop Field
July 2-4	70th Anniversary Funk Fly-In at Akron Muni Airport - Fulton Field
July 10-11	Taylorcraft Fly-In at Barber Field - Alliance, OH
July 27 Aug 2	EAA AirVenture at Oshkosh, WI (920)426-4800
Aug 23-25	WACO Field Fly-In at Troy, OH
Sept. 4-6	CFFS - Parma Hobby Display and Jr.HLG at Kiddie Hawk Tent, Burke Air Show.



Damaged Hawks HM-1 was purchased and returned to Springfield where Howell Miller and new Military Aircraft Corporation modified it into a military fighter hopeful. HM-1 was entered in 1938 Thompson and flown by Leigh Wade. Racing jets installed on Pratt and Whitney Twin Row Wasp to keep engine cool gulped so much fuel that Wade had to reduce throttle to finish race. Later in 1938 Earl Ortman tore the Military HM-1 apart in violent acrobatics and bailed out.
(Ronald W. Harrison)



Addition of a greenhouse canopy did much to change appearance of Military HM-1 and fuselage was now black, wing and horizontal stabilizer chrome yellow. Two-place tandem craft had a top speed of 365 mph, cruised 320 mph and climb rate of 6000 feet per minute.
(Ronald W. Harrison)



CFFS CONTEST EVENTS AT LORAIN COUNTY COMMUNITY COLLEGE

1. FAC PEANUT SCALE, FULLPOINTS
2. HI-WING CABIN PEANUT EXPERIMENTAL
3. HI -WING CABIN PRODUCTION
4. FAC DIME SCALE
5. FAC RUBBER SCALE
6. FAC OH FUNK & WACO LTD. ML 11:30
7. FAC JUMBO SCALE
8. FAC PIONEER SCALE
9. FAC GOLDEN AGE CIVIL AIRCRAFT
10. FAC GOLDEN AGE MILITARY A/C
11. FAC No. CAL PROFILE SCALE
12. No CAL WW II 3 FLT. TOTAL
13. FAC POWER SCALE ELWCT, OR CO2
14. O.T. GAS REPLICA ELECT OR CO2
15. EMBRYO ENDURANCE (J)(S)(O)
16. P-20, 8" PROP, 20 gm, 4 gm RUB, 3 FLT.
17. FAC PULP FICTION SCALE, 3 FLT. TOTAL
18. Jr. Rubber. 3 flights, No Max (Jr.)
19. H.L. GLIDER (J)(S)(O) $1 POT PRIZE
20. 6" STICK CATAPULT GLIDER $1 POT
21. FAC O.T. RUBBER 36" W.S. MAX $1 POT
22. FAC O.T. STICK 36" MAX $1 POT PRIZE
23. FAC O.T. TWO BIT 25" MAX $1 POT
24. P.T. JIMMIE ALLEN R.O.T. $1 POT.
25. SHELL DASH 2 FLTS BY 3:00 PM.
26. MODERN MILITARY M /L 12:00
27. WW I MULTI WING PEANUT M/L 12:30
28. WW I MULTIWING FAC M/L. 1:00
29. WW II PEANUT COMBAT 1:30
30. WW II FAC COMBAT M/L. 2:00
31. BENDIX PRE WAR RACE M/L/. 2:30
32. GOODYEAR & F.1 RACE M/L. 3:00
33. GREVE INLINES RACE M/L. 3:30
34. THOMPSON RADIALS RACE M/L.4:00

FAC RULES APPLY WITH INSPECTION OF No. CAL, DIME AND COMBAT M/L. MINIMUM DETAIL AND O.T. PER PLAN. NO SIZE CHANGE FOR 25" MAX PER PLAN O.T.
PRE SELECT EVENT FOR MULTIPLE OPTION MODELS. ALL MAY PICK A PLAN PRIZE.

SUNDAY May 23 — CFFS at Lorain County Community College Elyria, OH
I 90 Exit 148 to Rt. 301S to Hoag Rd. Russ Brown (216) 382-4821.

SUNDAY June 13 — CFFS at LCCC. 9 AM TO 5 PM CD Jim Hyka (216) 481-6525.

THURSDAY - SUNDAY July 15-18 — Flying Aces Nationals at Geneseo, NY CIC Lin Reichel.

SUNDAY July 25 — CFFS at LCCC. 9AM to 5PM CD Gordon Roberts (216) 479- 4817.

SUNDAY August 8 — CFFS at LCCC. 9 AM to 5 PM CD Peter Zbasnik (216) 476-4824.

SUNDAY Sept. 19 — CFFS at LCCC. 9AM to 5PM CD Russ Brown (216) 382-4821.

SUNDAY Oct. 3 — CFFS at LCCC. 9AM to 5PM CD Peter Zbasnik (216) 471-7478.

CFFS INDOOR AND S.O. FLYING is on SUNDAYS AT ANDREWS SCHOOL NOON TO 5 PM.
Check DOC HACKER (216) 486-4990, or DON SLUSARCZYK (440)918-0290.
SEND CONTRIBUTIONS FOR USE OF ANDREWS SCHOOL TO : DR. VERNON HACKER
25599 Breckenridge, Euclid, OH 44117-1807. (THE GOAL IS $600 PER YEAR.)
SAM O.T. FF & R/C FLY THURSDAYS AT SHELBY AIRPORT RT. 96, on 7/1, 8/5, 9/2 AND 10/7.
FLYING AT Schroeder's Farm, on RT. 61 3 MI S. OF RT. 224 - 6/17, 7/15, 7/29, 8/19 and 9/16.

THE SAM CHAMPS is on SEPT. 13-17 AT MUNCIE, IN. FOR FF, NFFS NOSTALGIA, SAM R/C. R/C NOSTALGIA.
ERIE FAC EVENTS are 6/5, 8/7 AND 10/2 AT ERIA, PA PRANGMORE FIELD.
FAC FALL OUTDOOR CHAMPS is on 9/11-12 AT MUNCIE, IN. Von Rottensox, CD.
2nd ANNUAL Ted Dock Memorial FAC Contest is OCT. 9-10 AT MUNCIE, IN.

