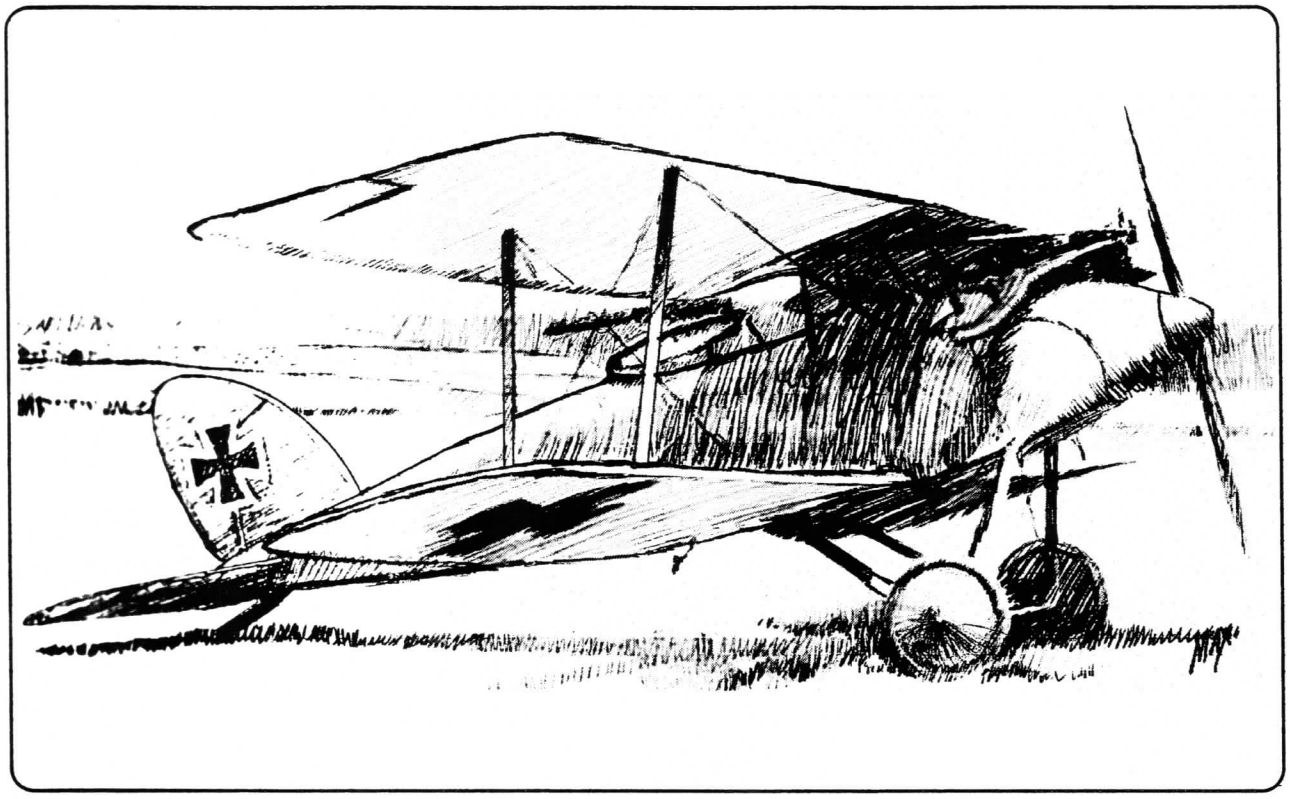
MAXFAX

Journal of the D. C. Maxecuters

... home of the dreaded POTOMAC PURSUIT SQUADRON of the Flying Aces Club

Editors: Stew Meyers & Claude Powell **Jan. - Feb. 2000**



COMING ATTRACTIONS

FEB 6 2000	CAAMA /SAM 10 MECA COLLECTO at Pimmit Hills Tysons Corner Regional Library 2 TO 5PM - CONTACT Marty Schindler 703-938-2975
FEB 12 2000	INDOOR FLYING AT MEMORIAL HALL IN PHILADELPHIA Phone Doug Barber of the SOTS at 609-235-5318 for info.
MAR 4 2000	ARCHIVES RESEARCH AND BULL SESSION -- SATURDAY 8 PM at TOM'S at 11014 Marcliff Road, Rockville, Maryland - 301-530-0327
MAR 11 2000	INDOOR FLYING AT MEMORIAL HALL IN PHILADELPHIA Phone Doug Barber of the SOTS at 609-235-5318 for info.
APR 18 2000	INDOOR FLYING AT MEMORIAL HALL IN PHILADELPHIA Phone Doug Barber of the SOTS at 609-235-5318 for info.
OTHER INDOOR	SCHEDULE FOR INDOOR FLYING AT SHERWOOD IS IN DOUBT but hopefully some more Essex Indoor Dates.
IMPORTANT NOTE	UNTIL FURTHER NOTICE THE MONTHLY MAXECUTER MEETINGS WILL BE HELD THE SECOND SATURDAY OF THE MONTH AT THE COLLEGE PARK AIRPORT.


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PHOTO PAGES

1. The featured plan of this issue is the Halberstadt by Claude Powell.
2. Here is our editor Stew Meyer's R/C Eindecker -- without a FF field many Maxecuters are turning to small scale electric powered R/C. aircraft.
3. Claude seen here ready to launch his Halberstadt at Petersburg last fall.
4. Now this is my kind of Power Scale -- a VC 10 powered by 4 Union Ducted Fans. Lindsey Smith sent us the photo and says it is a good flyer-- look at that flying site!!
5. Ever smiling Bob Flickinger tries everything -- this time a helicopter from an old issue of Flying Aces Magazine.
6. Terry Pittman seen here with his CO2 powered Besson a French floatplane intended for submarine installations.

About this Issue

Stew Meyers

No, this is not another Dime Scale issue. Don and Tom were going to put out this Jan-Feb 00 issue, but the Yk2 bug or something ate Don's publishing software, so I agreed to step in and put it out. Don and Tom of course have heavily contributed to this issue.

I only have two new Dimers done, plus one that has been bare bones for over a year, one that is covered but not assembled, not to mention one stalled on a building board. The loss of a free flight flying field is a real driver here. Under Don's evil influence I have been distracted by Mirco-R/C. I have been flying a Frank Elling 'Request' built from a Micro-Models kit. 30" span 130 sqin. 5.5 oz. This has evolved from a slightly underpowered (6v mini-6) rudder only to a 3 channel setup with plenty of power(Puma 50). Small radio gear now weighs less than 1 oz. It's a pleasure to fly and be able to keep out of the trees.

I had requested a copy of the Sterling Fokker EIII plans in a previous issue. Several members sent me plans and I was even offered a kit. Many thanks guys! I built it suitably lightened from the plans as a 3 channel micro radio job. 25"span 108 sqin 109 grams - not flown yet.

Claude Powell has responded to the request for material for the newsletter and is the guest editor for this issue. In addition to his Tips & Techniques he has plans for a BT-15 and a Halberstadt CLII which won WWI at our Petersberg contest.

FIFTEEN MINUTES OF GLORY

Claude Powell

If this newsletter gets published I will have my fifteen minutes of glory. I've wanted to try this for some time and have been jotting down some ideas just in case I took the plunge. I make no claims of originality of any of the information provided. These tips and techniques are simply the way I've come to do things and hope they might help someone else who's encountered the same difficulties that I have. I'm a realist not a perfectionist. I enjoy model building and when I encounter a hairy problem which makes it seem like work, I look for a simple solution. Many of the techniques that I use are "quick and dirty" rather than a craftsman approach. I use the KISS principal because I understand it and it usually works for me.

I've mentioned a couple of model suppliers in the body of this newsletter because I'm most familiar with them. I'm sure that the other model suppliers will provide the same kind of excellent support to you, just ask. The reduced plan of the KAWASAKI fighter that I've used as an example came from the old Golden Age planbook. Try some of their plans or kits, they have a bunch.

If some of these ideas help you, pat me on the back the next time we meet. If you have complaints, send them to Stew. If you want to try for "fifteen minutes of glory" give Stew Meyers, Don Srull or Tom Schmitt a call, they will be glad to help you out and they could use any help you might offer. Have fun with modeling and remember "more rules mean less fun" and "less rules mean more fun".

HALBERSTADT CL 2

Claude Powell

I drew this plan about 1995 but didn't build it until early this year (1999). The plan is drawn to a wingspan of 16" which I enlarged by 129% for the model I built (20+"). I built this model as a WW1 replacement for my anemic Sopwith one and a half strutter. I've only flown it in one contest (with hurricane force winds) and it was very stable. It has 3/4" dihedral in both wings, a 7" Peck prop and two loops of 1/8" TAN II 21"long. It weighs 39 grams, ready to fly, without rubber. Slight left rudder, 3-4 degrees downthrust and 1-2 degrees right thrust has it flying left/left. The three view I used is provided. It's an old one, probably from Flying Aces mag.

GUILLOW'S HALBERSTADT CL 2

Stew Meyers

I had a Guillow's Halberstadt kit stashed away and Claude's plan urged me to dig it out and look up the plane in Windsock #27 (avialable from Aeroplane Books) www.aeroplanebooks.com and Aircraft Archive WWI Volume 1. Bill Ceresa also sent me some info from Cross & Cockade Vol 7 No 1 1976 and Over the Front.

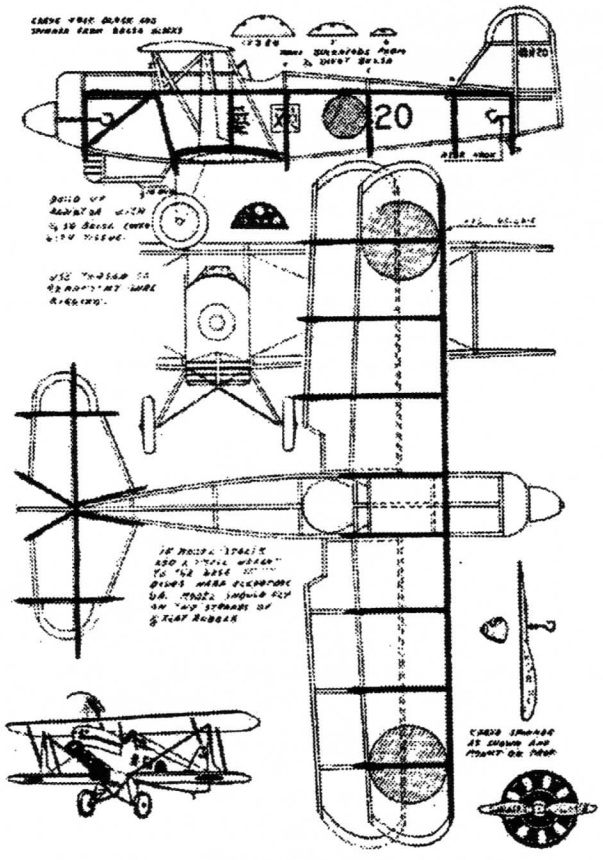
Guillow's WWI 18" series came out in the late 50's with new kits coming out until '64. I have built several for rubber, gas, electric, and CO2 over the years. This series may not be the last word in exact scale, but usually is not that far off. Sometimes the keel construction is not appropriate for the design and they can be considerably lightened.

TIPS AND TECHNIQUES

Claude Powell

1. BALSA

Purchase balsa in 3" x 36" sheets for economy and usefulness. Cut in half {18" lengths} for ease of handling and storage. Store, on edge, in under-the-bed clothes boxes (also drop in some moth balls). These boxes are available in many sizes at K-MART and can be stacked if you have several. Weigh complete balsa sheets vice individual strips and mark the weight on the end of the sheet. This technique will allow general weight control without requiring a super sensitive scale. The PELOUSE mail scale is satisfactory and is less than $10.00 at office supply stores. Also, before storing, wipe a felt tip marker across the top of each end of the sheet. When you strip a 1/16" sq. strip from 1/16" sheet you will always know which side to face up to maintain a flat structure. Although I only exercise "general" weight control over the wood, I do pay close attention to choosing the right grain for the job at hand. You hear everybody talk about 4 lb. balsa but it's only good for certain applications, not for general construction. LONE STAR lets you select medium or heavy balsa without extra cost (verify this when ordering). Their medium balsa is nominally 6-9 lb. I usually order about $40.00 worth at a time (without specifying grain or weight-extra cost !!) and find this gives me a good cross section of weights and grains.



JAPANESE KAWASAKI FIGHTER

Fig 1

2. TISSUE AND COVERING

Store tissue in the same kind of storage boxes. You'll probably have to fold it but it will suffer less damage in the long run (add moth balls).

When covering, use the old method of clear doping the framework and using thinner to adhere the tissue (I use acetone because it's readily available at the hardware store, cheaper, and I always have it around to clean brushes and soften glue joints when necessary). Use thinned white glue to seal down the edges and overlaps, it never comes loose. Spray wings and tail surfaces with water and pin them down to dry. At this point you can place balsa strips under the trailing edge/wingtips for washout. When the water drys the washout will be a built-in warp. Before unpinning the structures, spray them with clear lacquer (instead of brushing on clear dope). Apply several thin coats until you are satisfied with the coverage. You only need to wait a few minutes between sprays if you spray lightly. After the lacquer is completely dry, unpin the structures. You will find the "set" is locked in. Now spray the other sides, You don't have to pin them down again. You will find the sprayed on lacquer will only weigh about 25-30% of the weight of brushed on dope and it's much faster to apply. This will make a significant difference in the total weight of your model. The type of spray lacquer is important!! The one that's ON-SALE seems to work best.

Many plans call for bond paper cowlings and wing fillets. Adhere your colored tissue to the bond paper with UHU glue sticks and let dry. The bond paper will feel like thin card stock and the tissue color will perfectly match the surrounding tissue. Incidently, I've used the AVERY purple glue stick and don't see any difference between it and UHU.

3. CONSTRUCTION

I use basswood for laminated outlines. It's stronger than balsa, doesn't fracture like balsa, and you only need half as many pieces as balsa when laminating parts. 1/32" sheet is the thinnest that's advertised, and that's too thick for me. I called LONE STAR and asked how thin can they could really cut it. They offered to run it through their sander a couple of times and get it to approximately 15 thousandths for 25% more than the price of 1/32" sheet. They did, and it works great. $10.00 worth will last a lifetime.

When I build any part of a model I pick a reference line and build from that reference. For example (Fig 1), my reference is the top longeron of the fuselage side. I pin this in place and glue the uprights to it. Leave them overly long and then cut them off at the bottom longeron. Glue the bottom longeron to the bottom of the uprights. This is faster and more accurate than trying to custom fit uprights between the top and bottom longeron. Incidently, before I glue the bottom (curved) longeron in place I wet it (not soak) and sheath the water off by pulling it between my fingers. When dry, the tension in the curve will be relieved and it won't distort the side frame. Use the same techniques when building the wing and tail pieces (Fig 1). The leading

edge of the wing is my reference and I glue the ribs to it. I always cut ribs too long and trim them at the trailing edge the same way I do the fuselage uprights. For the stab and rudder I use the center spar as my reference (Fig 1).

Since I build mostly from plans, rather than kits, I have to transfer the parts onto sheet balsa. I simplify this task by copying only the outside edge of the parts. I use a homemade two-blade cutter (MAX-FAX/Jul-Aug 1993) to cut out the parts (Fig 2). Following the outline with one blade will automatically cut the inside edge of the part. I have several two-blade cutters of different widths, 1/8", 5/32", and 3/16".

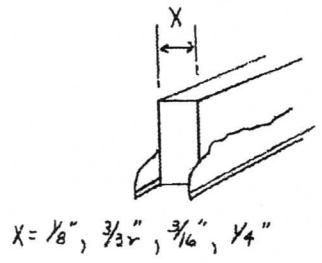
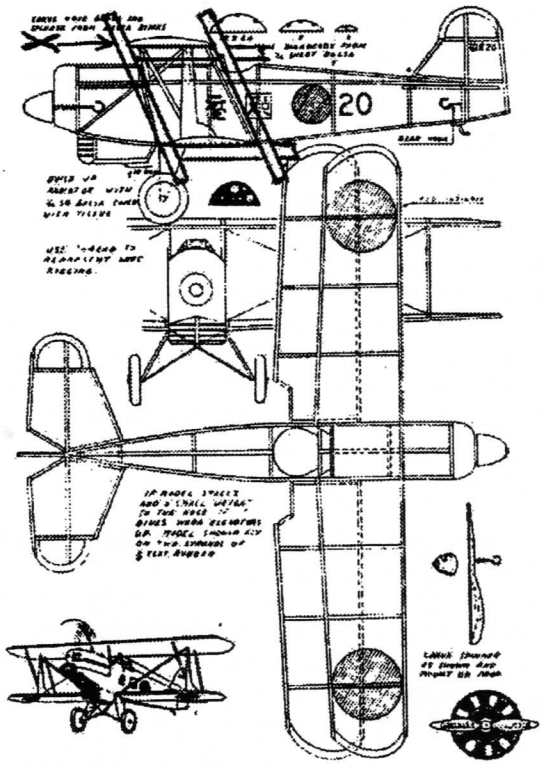


Fig 2

I use the one which is closest to the width of the part as shown on the plan. When cutting the parts for a wing tip, cut them overly long. To cut them exactly to length, overlap them on the plan and cut through both at the same time (scarf the joint). You will have a perfect fit. Use the same two-blade cutter technique for cutting fuselage formers when building a crutch type fuselage. Incidently, I use a fine-point ball point pin to trace the outlines on balsa because a pencil doesn't always leave a clear line. Since the ink line is only on the outside of the part it is always sanded away.

After fighting bi-plane wings for a long time I've settled on the following method, It's fast, easy, painless and accurate. This method assumes that both wings are one-piece wings, the fuselage has saddles for mounting the lower wing, and the wing has pockets for the struts. Pin down a piece of balsa (1/8" x 1/2" x ? length) under each wing (Fig 3). Connect these together with another piece of balsa (called part X) at the leading edge of each wing and one at the trailing edges (allow 1/8" extra space at the trailing edges). Make two of these frames. Now pin these frames down over the top wing plan with part X flat on the plan (Fig 4). Locate them between the wing struts and the fuselage. Place the completed wings on the frames (Fig 5). Position them accurately with respect to each other. The easiest way I've found to hold them in place is with a strip of balsa pressing down on the top of the wing. CYA the balsa strip to the front and rear of the frame. With the wing held in the proper position you can now fit the struts into the wing pockets. The struts need to be slightly long because you slide them into the upper pockets and then back down into the lower pockets thereby having a part of each end of the strut in a pocket. Now glue them in place. After all the wing struts are installed simply cut the frames apart with a pair of dikes. The two wings are now accurately joined to each other at the correct angles and spacing. Slide the wings over the fuselage from the rear (you haven't glued on the rudder, have you??). The lower wing is glued into the wing saddle.5 Complete the job by adding the cabane struts.



JAPANESE KAWASAKI FIGHTER

Fig 3

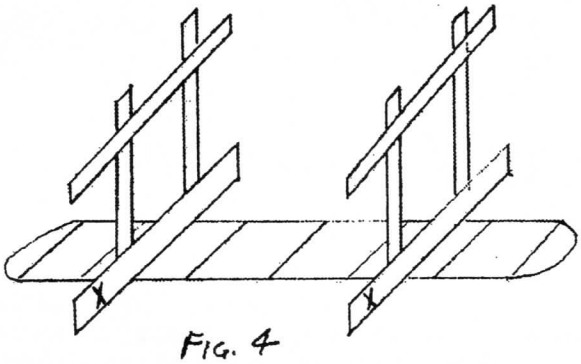


Fig. 4

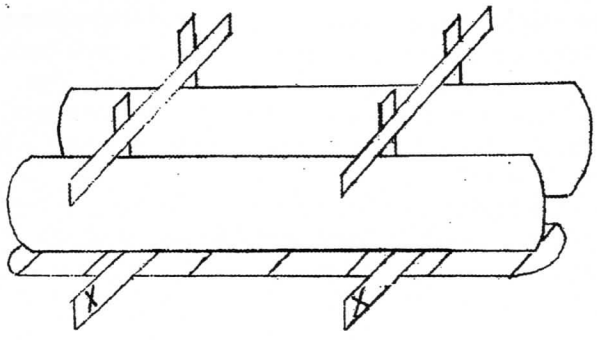


Fig 5

4. ELECTRIC

If your battery pack or your charger stops working correctly (not holding a charge or not charging to its' rated capacity) you can easily troubleshoot the problem. You will need a voltmeter capable of measuring 1.0-10.0 volts DC. Radio Shack has them for about $15.00. Let's say your HiLine MEC-04 charger is only recharging to 3.6 volts instead of 4.8 volts. One of the cells has probably failed. Fig. 6 shows four batteries in series as they are in the HiLine charger. To identify the bad cell, set the meter to read DC volts and connect the ground lead from the meter to the battery ground. Now touch the positive meter lead to the positive terminal of each battery from battery #1 to #4. The voltage of each battery should add to the previous one. Let's say that battery #3 gives the same voltage reading as battery #2 (2.4 volts). This tells you that battery #3 has shorted and isn't providing any voltage. Same situation, except that battery #3 is reading 0.0 volts while battery #2 is reading 2.4 volts. This tells you that battery #3 has opened and consequently has failed. A bad solder/weld joint between the batteries would also give this type of indication (an open circuit}. Any battery pack (series connected) can be tested this way (even the one in your battery operated hand drill).

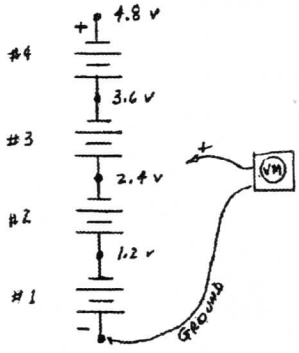


Fig 6

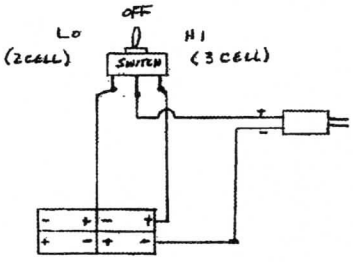


Fig 7

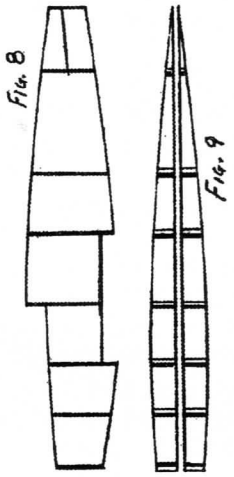
I use a MEC-04 charger but I always carry a backup charger to contests. My backup charger is four alkaline D cells connected as shown in Fig. 7.

The battery case is plastic and the switch is a three position toggle switch, both available from Radio Shack. The left switch position charges a two cell battery pack and the right position charges a three cell pack. The center position of the switch is not connected to either and consequently the charging plug is not hot and cannot short out.

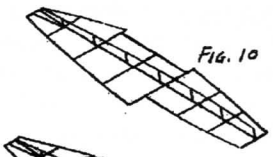
After field charging a model it's easier for me to put the switch in the center position than it is to slide on the plastic protector for the charging plug (not enough hands).

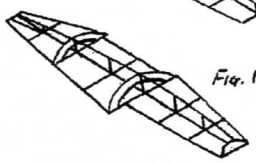
5. BUILDING HALF-SHELL FUSELAGES MADE EASY

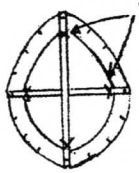
Although I did a short article about this subject in the Jul-Aug 1983 issue of MAX-FAX I wanted to update it to reflect the methods that I currently use. It seemed appropriate to revisit the information since it is the suggested method to build the VULTEE plan in this issue. This method easily accommodates any plan with a side and top view of the fuselage. It works well with the early plans that utilized large, hollowed balsa fuselages, existing kit plans with plastic front ends and makes scratch built plans much easier to develop. It absolutely guarantees straight fuselages. If you don't want to build the VULTEE, try one of Earl Stahls' plans with half-shell construction (P-39 or P-40). They are a snap.



Construct a frame of the side view using only single strips for keels (Fig. 8) and place uprights where formers are designed (it will look like a NOCAL). Remember to build to the reference line as described in the TIPS and TECHNIQUES section. Build through open areas such as cockpits to maintain the integrity of the frame. Any extra wood can be cut out later. Leave the side frame pinned down and construct two halves of the top view separated by the thickness of the stripwood (Fig. 9). When building the top-view halves, placement of the uprights (siderights ??) is critical. They should be offset to the outer edge of the upright shown by the plan. This will allow a half-former to be glued directly on the side view upright and then glued to the side of the top view upright. This insures that the half-former is vertical at 90 degrees to the side view. When the top views are completed, glue one on the centerline of the side view or the indicated position for the side keel (Fig.10). Make half formers using the two-blade cutter (appropriate size} explained earlier in the Tips and Techniques section.







(NOTE: The nose former should be a complete half). Glue the half-formers in position (Fig.11). Now lift the structure from the building surface and add the other half of the top view and the remaining half-formers. Use a sanding stick or a jewelers' file to notch the formers for placement of the stringers. Be sure to alternate (opposite side) the stringers as you glue them in place. Glue another nose former (whole) to the front of the fuselage with the grain at right angles to the first nose half-formers. Now cut a hole in the nose former and make a nose block to fit. Add all necessary planking, sheeting and wing saddles. Fuselage is ready for sanding and scalloping. When finished, spray the fuselage with water and let dry overnight. This action will relieve the stresses in the

stringers. Fuselage is now complete except for removal of the internal cross-structure. I use a pair of long nose end-cutters (similar to long nose pliers but with a cutting edge at the tips). Reach between the stringers and cut at the X's (Fig.12). Continue cutting the internal structure apart until the pieces can be shaken out. Using this method has allowed you to build a fuselage jig, internal to the structure, very accurately and with very little effort. Try my method and then adapt it to your skills, tools or goals. There are many adaptations that I didn't try to cover such as "How thick the nose formers should be", that's your choice. Or, on short nose models, you can use 1/16" formers from the nose to the CG, 1/20" formers from the CG to halfway to the tail and then 1/32" formers from there to the tail to help keep the weight in the nose.
Or, how about undercutting the half-formers so you don't have to notch them for the stringers. If this method works for you, you can now tackle all those plans that you have been avoiding.

6. MISCELLANEOUS

If you only have one model book on your shelf it should be the one by William McCombs called "MAKING SCALE MODEL AIRPLANES FLY". Get it if you don't have it. His address is 2106 Siesta Drive, Dallas, Tx. 75224-3628 ($18.95 ppd).

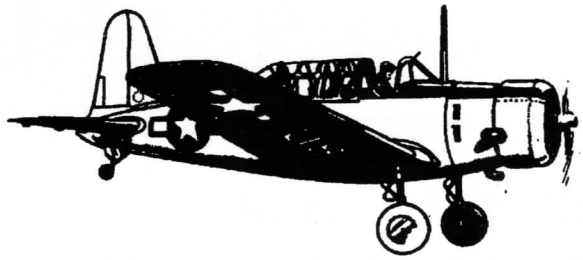
Another product that I find indispensable is the rubber stripper made by Robert Oppegard at 10837 N.57th Drive, Glendale, Az. 85304. I think the cost is $125.00 (verify). The price might sound high but it's a lifetime item and you can will it to your grandkids (you are raising modelers, aren't you ?). I buy only 1/4" rubber (by the pound) and strip any size I want. I seem to use a lot of 5/32" which you can't buy anyway.

I use silver thread to simulate rigging wire. It's easy to work with and cheap. Thread a needle and do your rigging. A spool will last a lifetime.

I use .011" fishing leader wire as glue pins in the end of struts. It's easier to use than monofilament and just as thin. I also use it to pin the trailing edge of the stab to the fuselage tail post. I can then shim the leading edge of the stab with balsa to set the glide. It can be purchased at a fishing tackle store in 25' lengths for about $3.00 in many different diameters.

I don't draw plans very often but when I do I size them for two sheets of 8 1/2" x 11" or one sheet of 11" x 17" paper. These are usually 16" wingspans. There are several advantages to this size wingspan and using this size paper. One is that a NOCAL can be built directly from the plans. The second is that it's so easy to manipulate if you want to reduce or enlarge the plan and, if you do a good one, for the newsletters to publish. Most 16" wingspan models are built with a nominal 1/16" balsa. If the plan is reduced for a P-NUT then 1/20" balsa is called for and if enlarged then 3/32" balsa can be used. The main tool I use when scaling up a plan from a 3-view is a set of homemade proportional dividers that were featured in the May 1976 Model Builder mag by Al Lidberg.

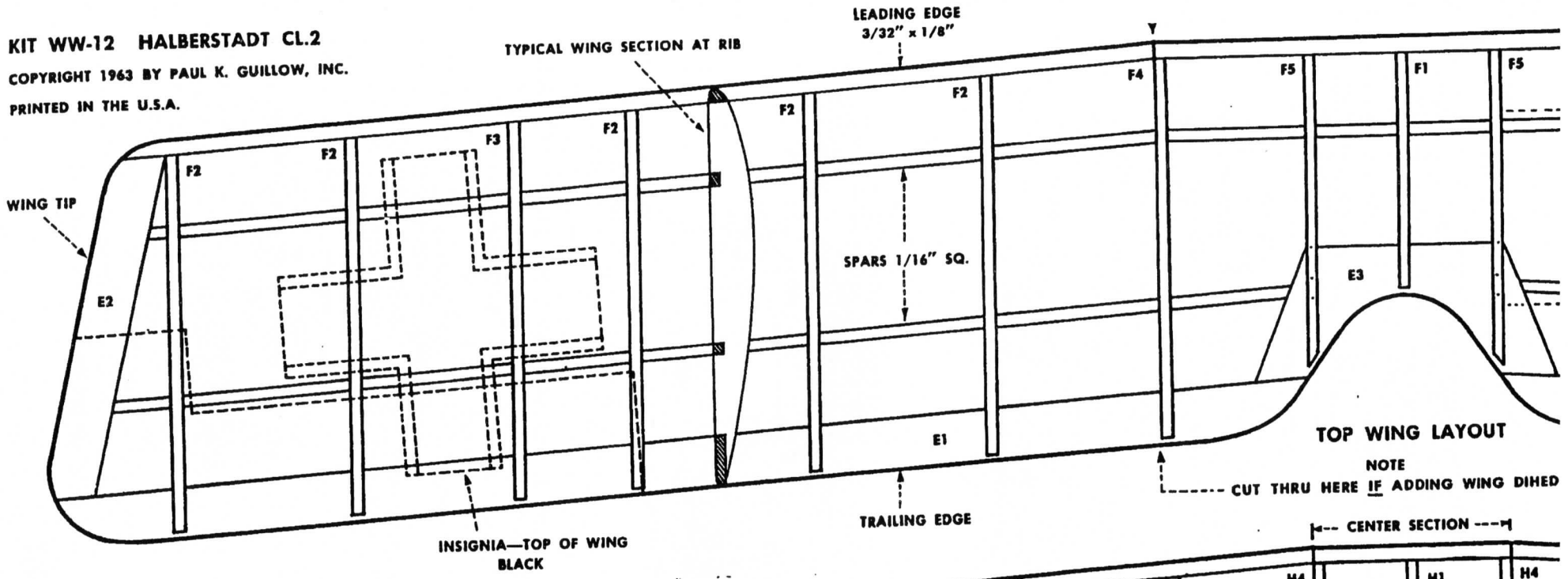
Here is a trick I recently learned while trimming out a new model (everybody may already know this but I didn't). I guessed the model would fly on 1/4" rubber and the length of the testing loop would be about 15" long. Instead of making up a new loop of 1/4" I used two old single loops of 1/8" which were leftover from other models. Each was already braided and I simply installed them side-by-side, Guess what!! When these were wound up and the prop ran down, they were braided together perfectly. Hmm!! Actually this makes sense if you think about it. Look at the choices I have now. The model is now trimmed to fly on two loops of 1/8" rubber (individually braided). However if I want slightly less power (indoor ?) I can substitute a loop of 3/32" for one of the 1/8" loops without replacing the whole motor or for slightly more power (bad weather} I can substitute a loop of 5/32" for one of the 1/8" loops. All combinations will braid together as if they were a single loop, doubled. Also, if a loop breaks in a mass launch event the unbroken loop may hold up long enough to get a short flight. If the motor was a single loop doubled over you would simply have a blown motor. I also added a third single braided loop to the first two to see how it would respond. All three braided themselves together. Try it!!

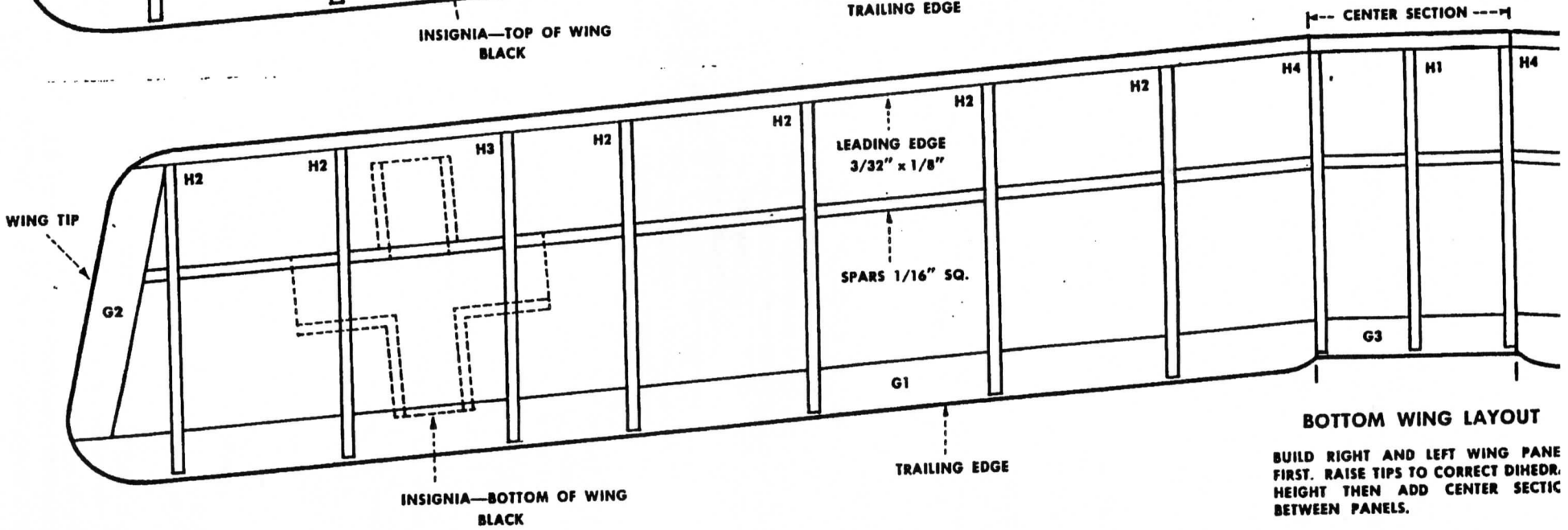


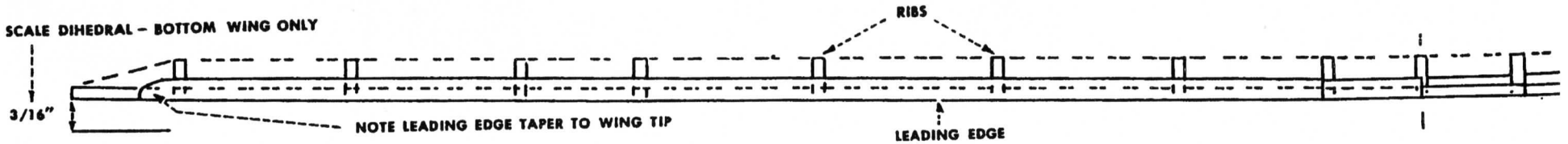
VULTEE BT-15

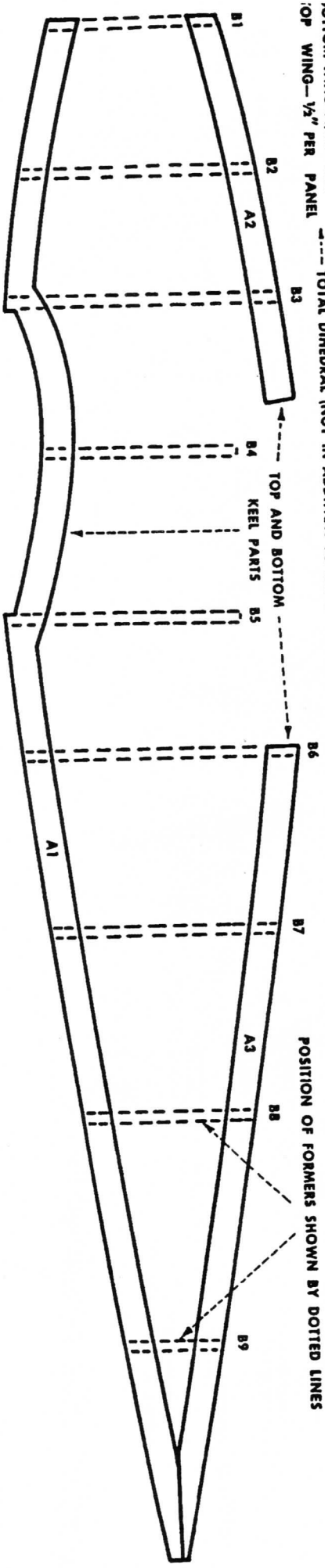
I drew this plan in late 1997 after being reminded of Ned Kragness in the Jul-Aug 1997 issue of MAX-FAX. The 3-view I used is provided. You will need to refer to it for the model details. I had talked with Ned several times about this plane (he had flown it) because I had always wanted to build it. The only plan I had seen was an old Whitman plan that I didn't care for. Ned sent me a plan he designed for RC but it was the wrong size for my likings. So after thinking about Ned some more I decided to draw it up. I was attempting a pseudo dime scale plan but I'm not sure that's what I ended up with. I built the model in early 1998 and am still trying to trim it out. I thought I would hedge my bets by putting a picture of Ned in the front seat and one of Hurst Bowers (they were buddies} in the back seat. This ploy DID NOT work because it DID NOT fly right off the building board. I've reduced the size of the rudder, from the one on the plan, and this seems to be helping but I'm not there yet. I have 1 1/2" of dihedral in the wings and I'm using a 6" Peck prop. The model weighs 17 grams, balanced to glide but without rubber. I'm flying with a loop of 1/8" TAN II. Why don't one of you build it, trim it out and tell me what I'm doing wrong.

KIT WW-12 HALBERSTADT CL.2



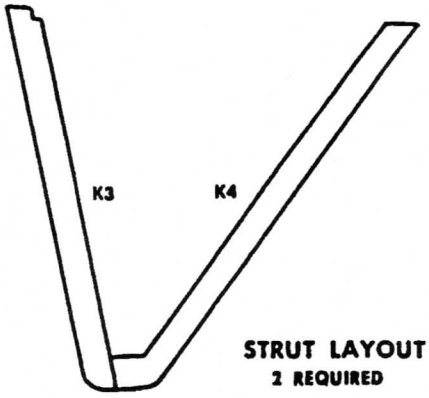




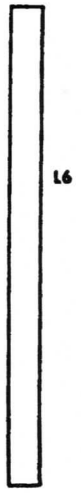


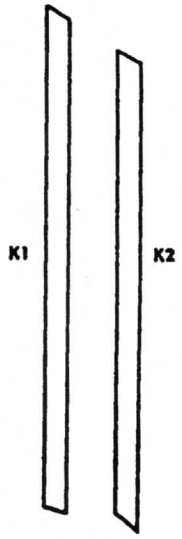
NOTE: INCREASE OR ADD WING DIHEDRAL FOR BETTER FLYING-STABILITY

BOTTOM WING-11/16" PER PANEL
TOP WING— ½" PER PANEL ---- TOTAL DIHEDRAL (NOT IN ADDITION TO SCALE DIHEDRAL)

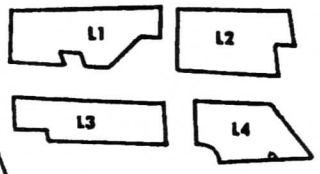


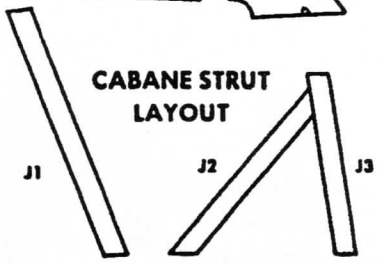
STRUT LAYOUT
2 REQUIRED



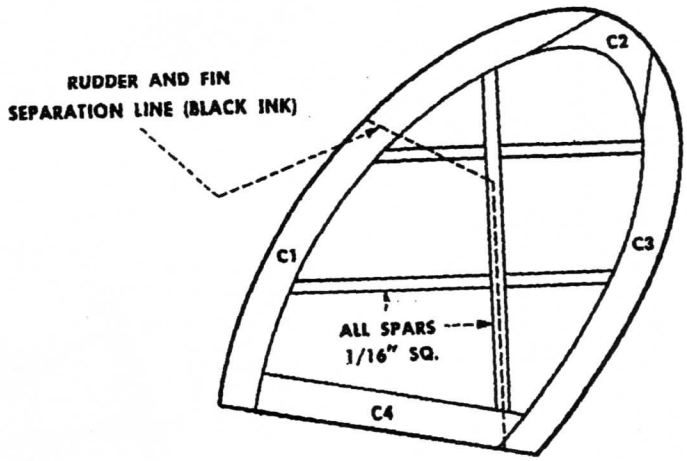


WING STRUTS
2 OF EACH
REQUIRED





2 OF EACH REQUIRED



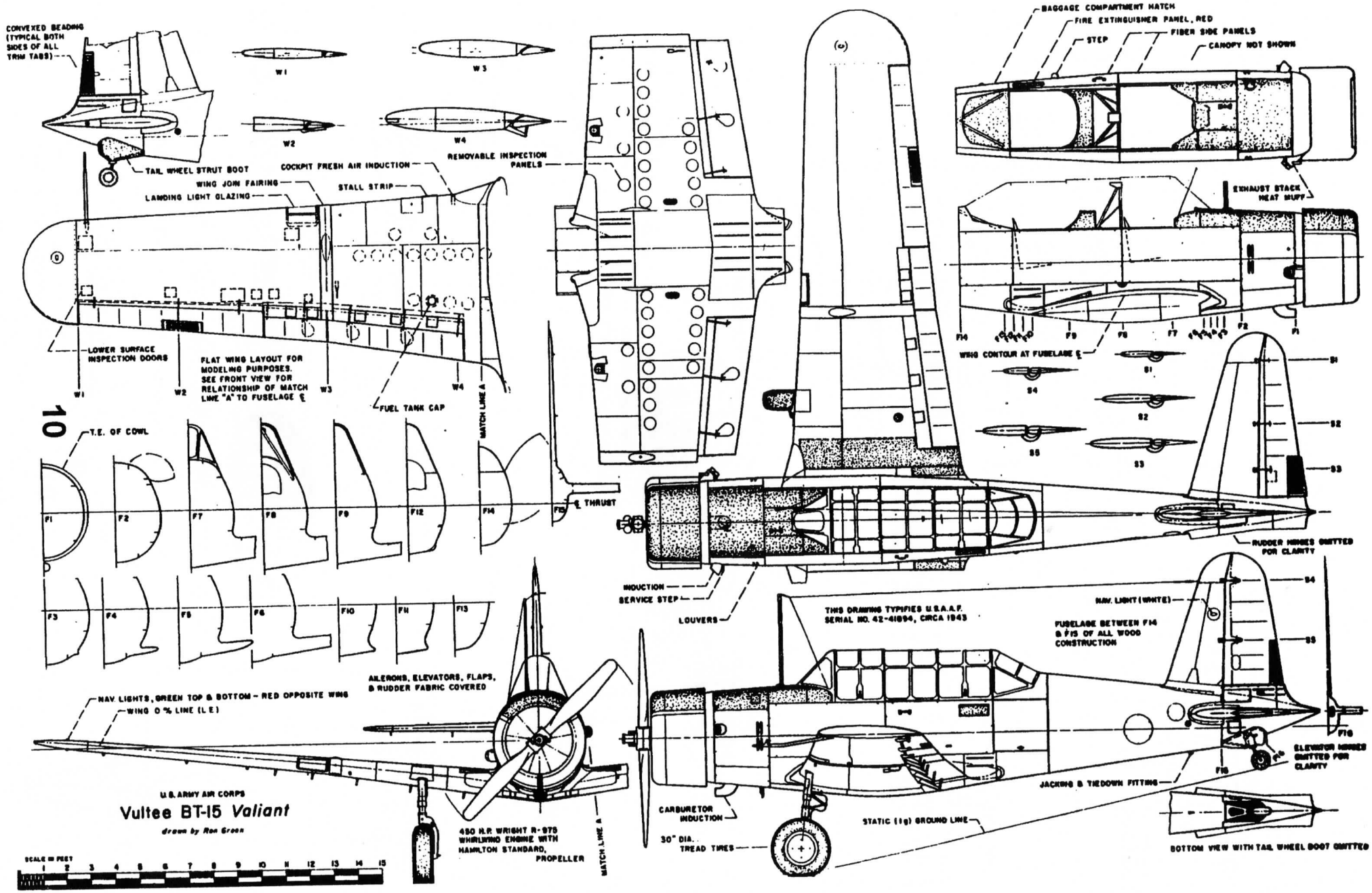
RUDDER LAYOUT

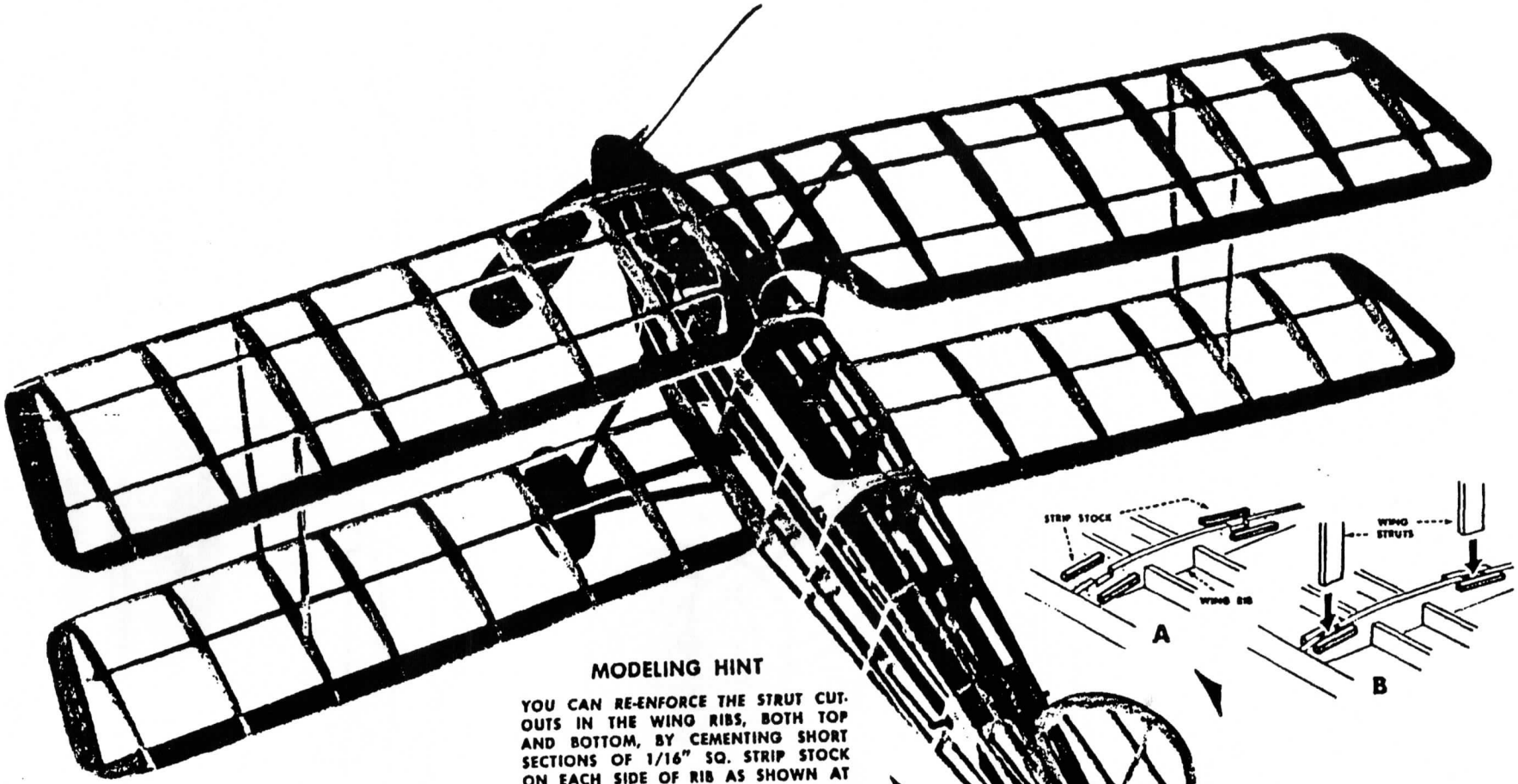
KIT WW-12

Guillow's HALBERSTADT CL.2

WING SPAN—18" App. Scale 5/8" = 1'-0" LENGTH—12½"

PAUL K. GUILLOW, INC., WAKEFIELD, MASS.


CONVEXED BEADING (TYPICAL BOTH SIDES OF ALL TRIM TABS)
W1
W3
W2
W4
TAIL WHEEL STRUT BOOT
COCKPIT FRESH AIR INDUCTION
REMOVABLE INSPECTION PANELS
WING JOIN FAIRING
STALL STRIP
LANDING LIGHT GLAZING
BAGGAGE COMPARTMENT HATCH
FIRE EXTINGUISHER PANEL, RED
STEP
FIBER SIDE PANELS
CANOPY NOT SHOWN
EXHAUST STACK HEAT MUFF
LOWER SURFACE INSPECTION DOORS
FLAT WING LAYOUT FOR MODELING PURPOSES. SEE FRONT VIEW FOR RELATIONSHIP OF MATCH LINE "A" TO FUSELAGE ℄
FUEL TANK CAP
MATCH LINE A
WING CONTOUR AT FUSELAGE ℄
10
T.E. OF COWL
℄ THRUST
RUDDER HINGES OMITTED FOR CLARITY
INDUCTION
SERVICE STEP
LOUVERS
THIS DRAWING TYPIFIES U.S.A.A.F. SERIAL NO. 42-41894, CIRCA 1943
NAV. LIGHT (WHITE)
FUSELAGE BETWEEN F14 & F15 OF ALL WOOD CONSTRUCTION
AILERONS, ELEVATORS, FLAPS, & RUDDER FABRIC COVERED
NAV. LIGHTS, GREEN TOP & BOTTOM – RED OPPOSITE WING
WING 0 % LINE (L.E.)
ELEVATOR HINGES OMITTED FOR CLARITY
JACKING & TIEDOWN FITTING
CARBURETOR INDUCTION
30" DIA. TREAD TIRES
STATIC (1g) GROUND LINE
U.S. ARMY AIR CORPS
Vultee BT-15 Valiant
drawn by Ron Green
450 H.P. WRIGHT R-975 WHIRLWIND ENGINE WITH HAMILTON STANDARD, PROPELLER
BOTTOM VIEW WITH TAIL WHEEL BOOT OMITTED
SCALE IN FEET

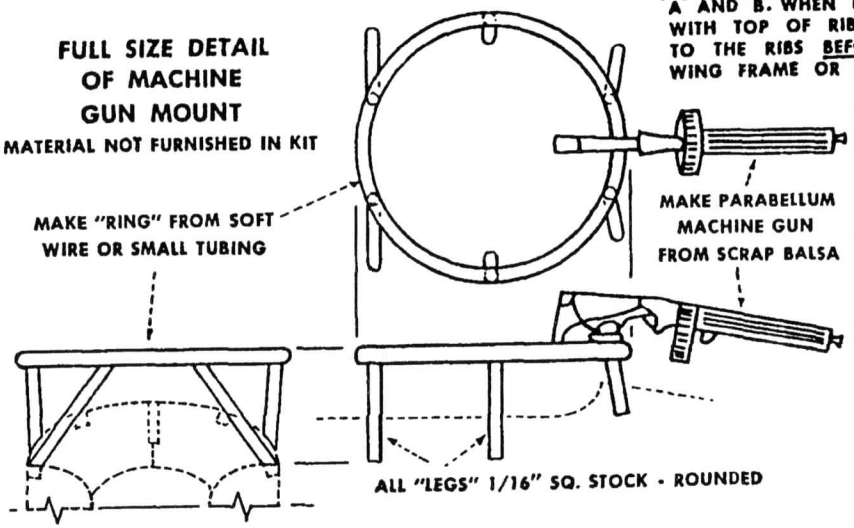


MODELING HINT

YOU CAN *RE-ENFORCE* THE STRUT CUT-OUTS IN THE WING RIBS, BOTH TOP AND BOTTOM, BY CEMENTING SHORT SECTIONS OF 1/16" SQ. STRIP STOCK ON EACH SIDE OF RIB AS SHOWN AT "A" AND "B". WHEN DRY SAND SMOOTH WITH TOP OF RIB. ADD THE STRIPS TO THE RIBS BEFORE CONSTRUCTING WING FRAME OR FRAMES.

FULL SIZE DETAIL OF MACHINE GUN MOUNT

MATERIAL NOT FURNISHED IN KIT

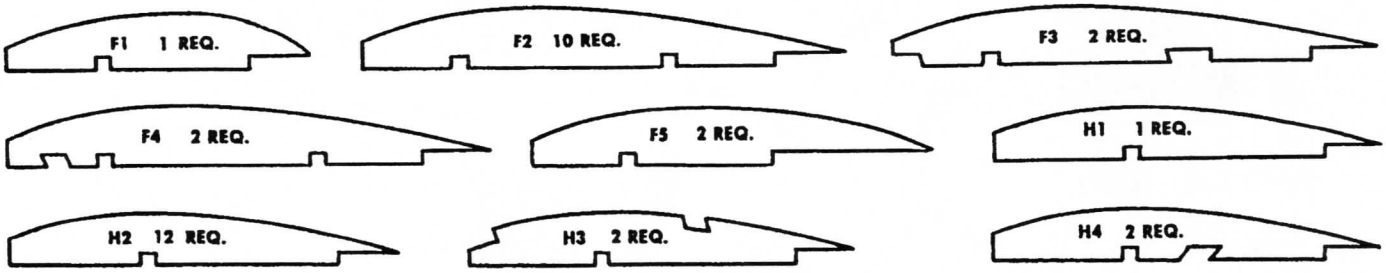


Balsa flies BETTER

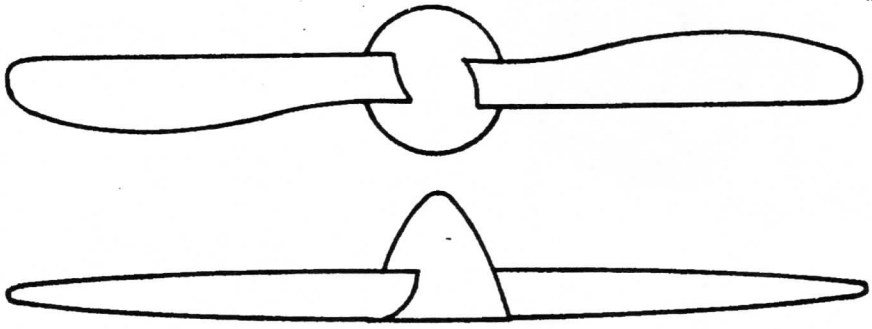
NOTE: ALL FRAMES ARE COVERED WITH TISSUE BEFORE ASSEMBLY

FOR A SUPER LIGHT FLYING MODEL, DO NOT USE COLORED DOPE. APPLY ONE COAT OF CLEAR DOPE OVER TISSUE THEN ADD DECALS.

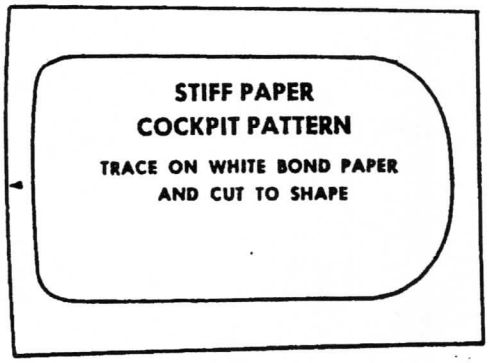
WINDBREAKER PATTERN
CUT FROM CELLOPHANE
OR THIN ACETATE SHEET

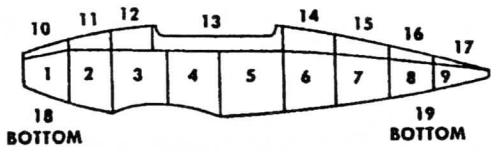


WING RIBS



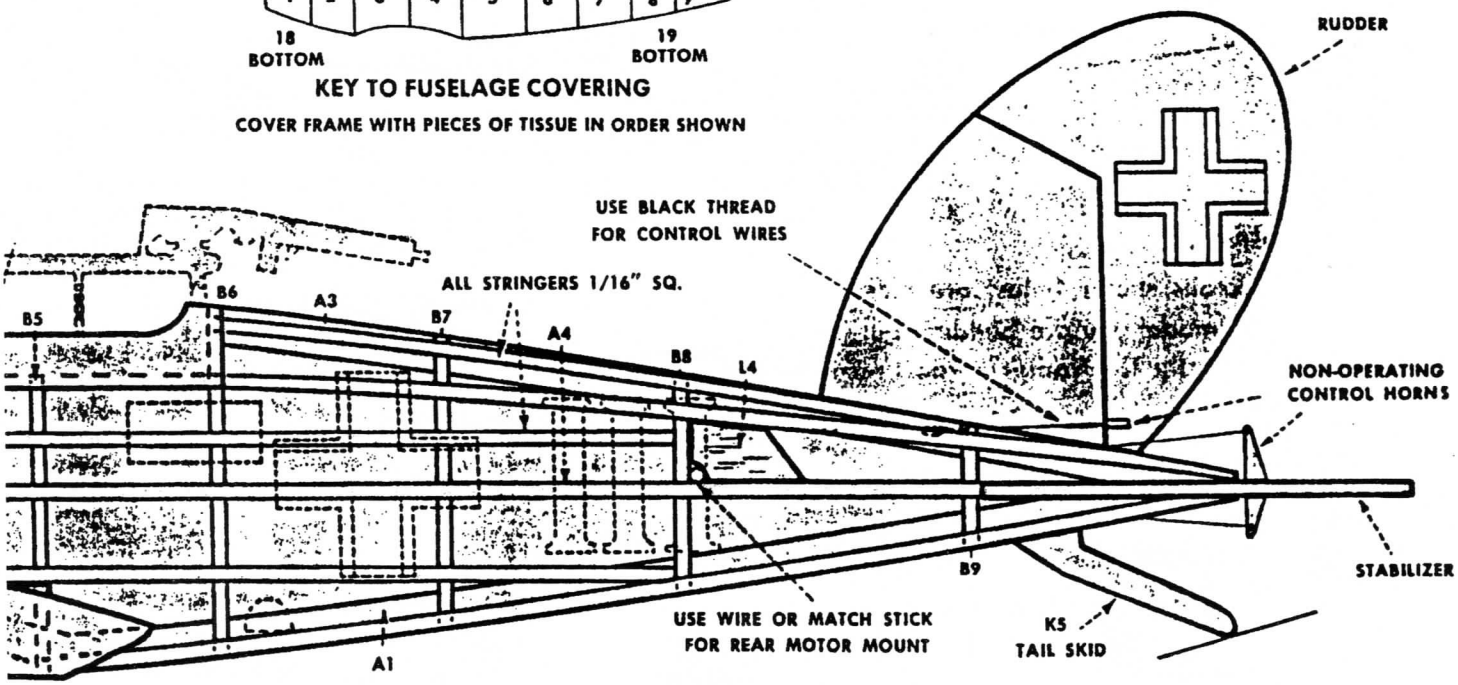
FULL SIZE SCALE PROPELLER
MATERIAL NOT FURNISHED IN KIT



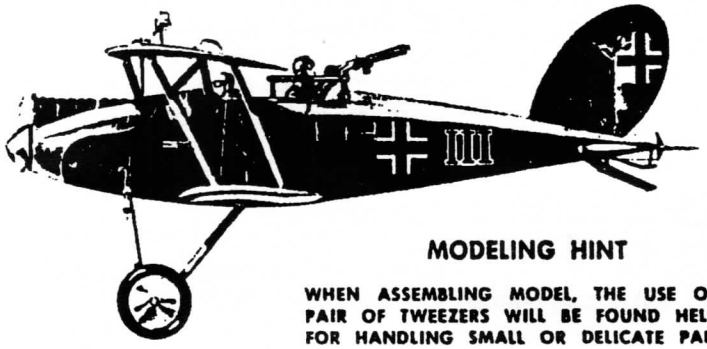


KEY TO FUSELAGE COVERING

COVER FRAME WITH PIECES OF TISSUE IN ORDER SHOWN

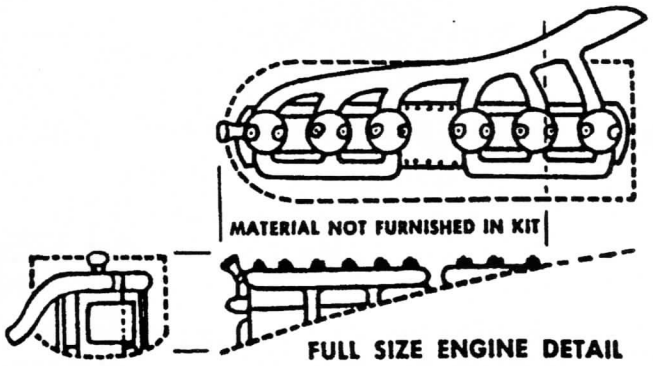


FULL SIZE SIDE VIEW



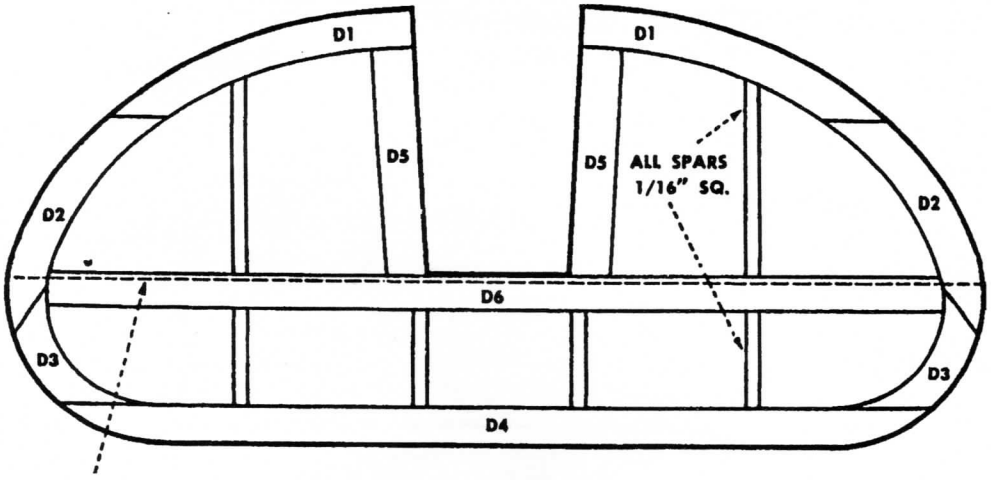
MODELING HINT

WHEN ASSEMBLING MODEL, THE USE OF A PAIR OF TWEEZERS WILL BE FOUND HELPFUL FOR HANDLING SMALL OR DELICATE PARTS.

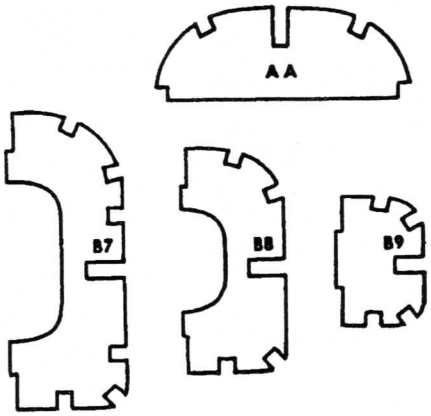


FULL SIZE ENGINE DETAIL

THE ENGINE PARTS CAN BE MADE FROM SCRAP BALSA, SOFT WIRE, ETC.



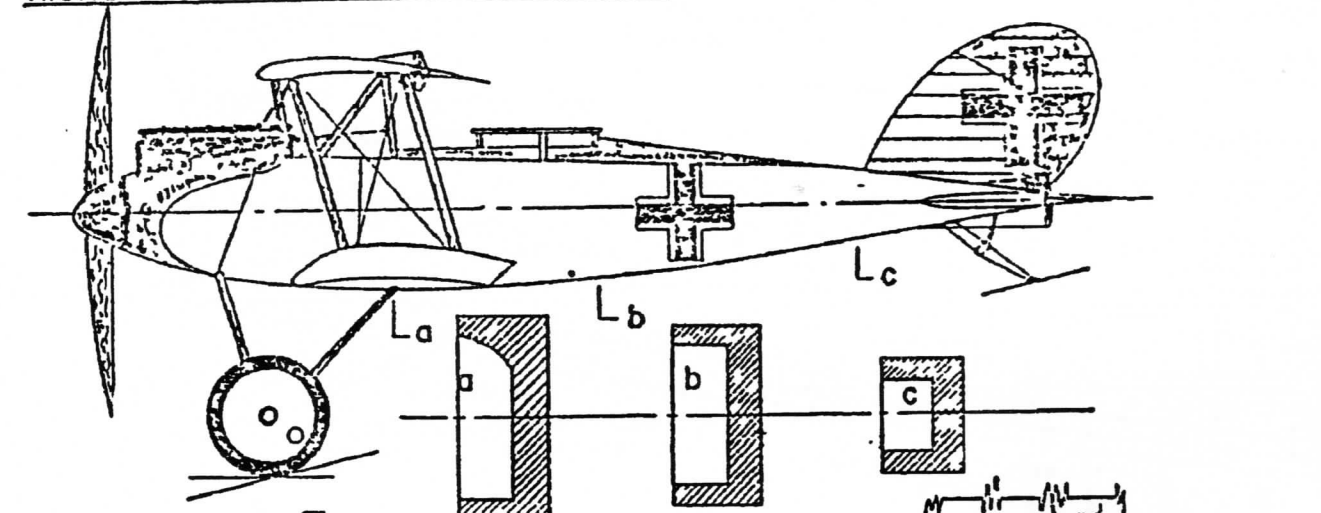
STABILIZER LAYOUT

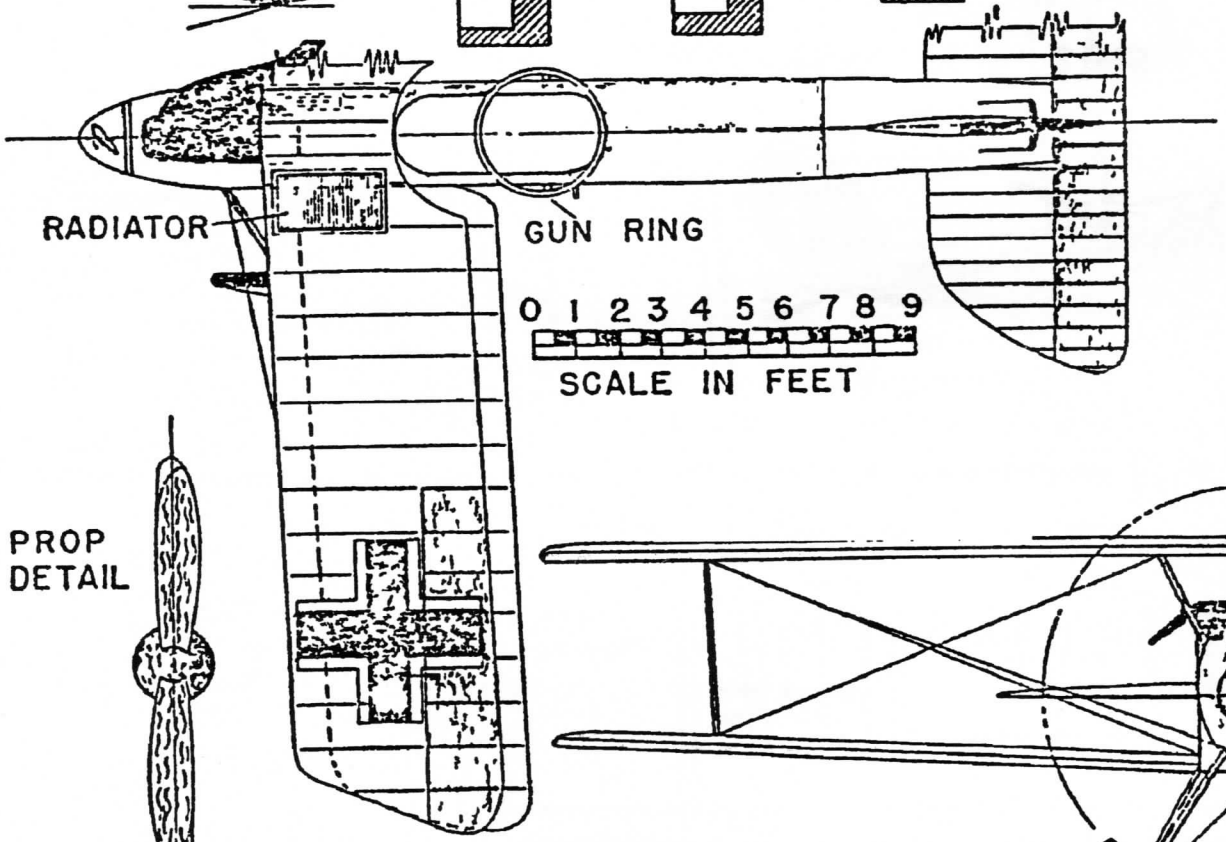


Claude's Three View

GERMAN HALBERSTADT CL-2 OF 1917

THIS TWO SEATER WAS PRODUCED BY THE HALBERSTADTER FLUG-ZEUGWERKE AT 10,000 FEET IT MADE 97 MPH. POWER WAS FURNISHED BY A 180 HP MERCEDES





0 1 2 3 4 5 6 7 8 9

SCALE IN FEET

PROP DETAIL

COLOR SCHEME

BROWN —

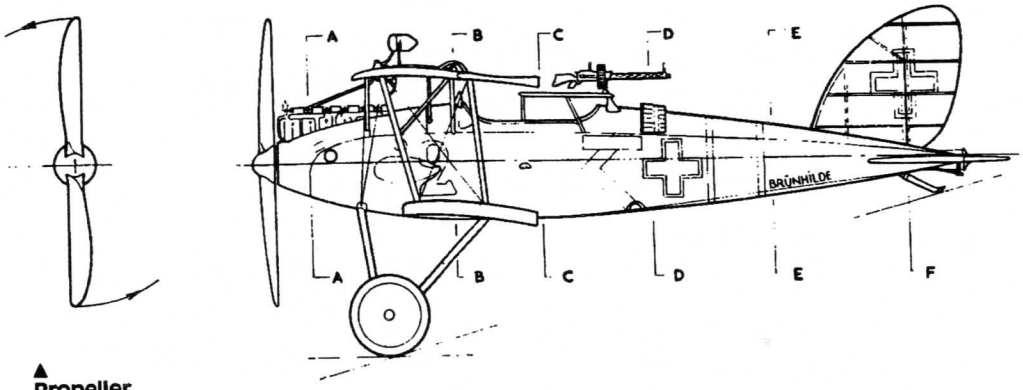
WHITE —

BLACK DETAILS

By Wittman

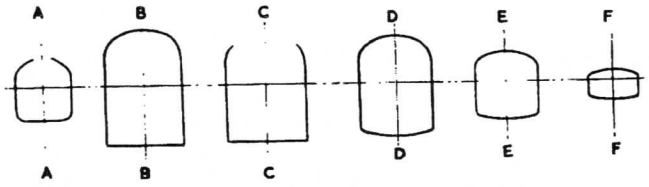
Halberstadt CL II

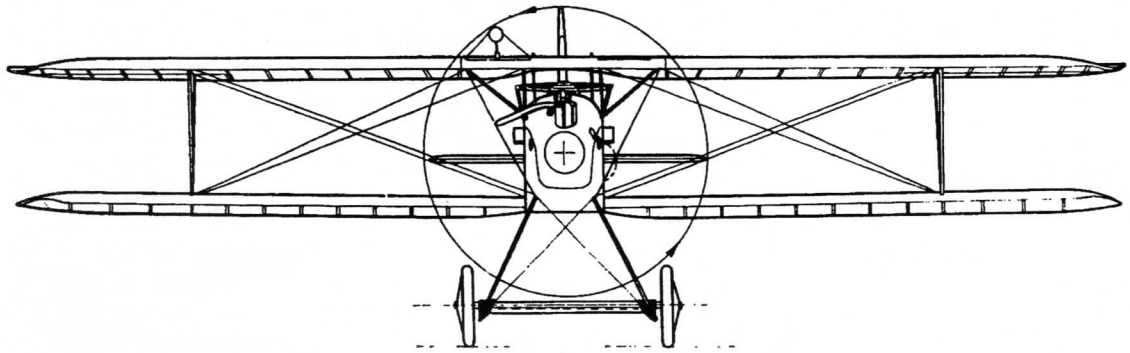
DRAWN BY P L GRAY
AIRCRAFT ARCHIVE VOL 1

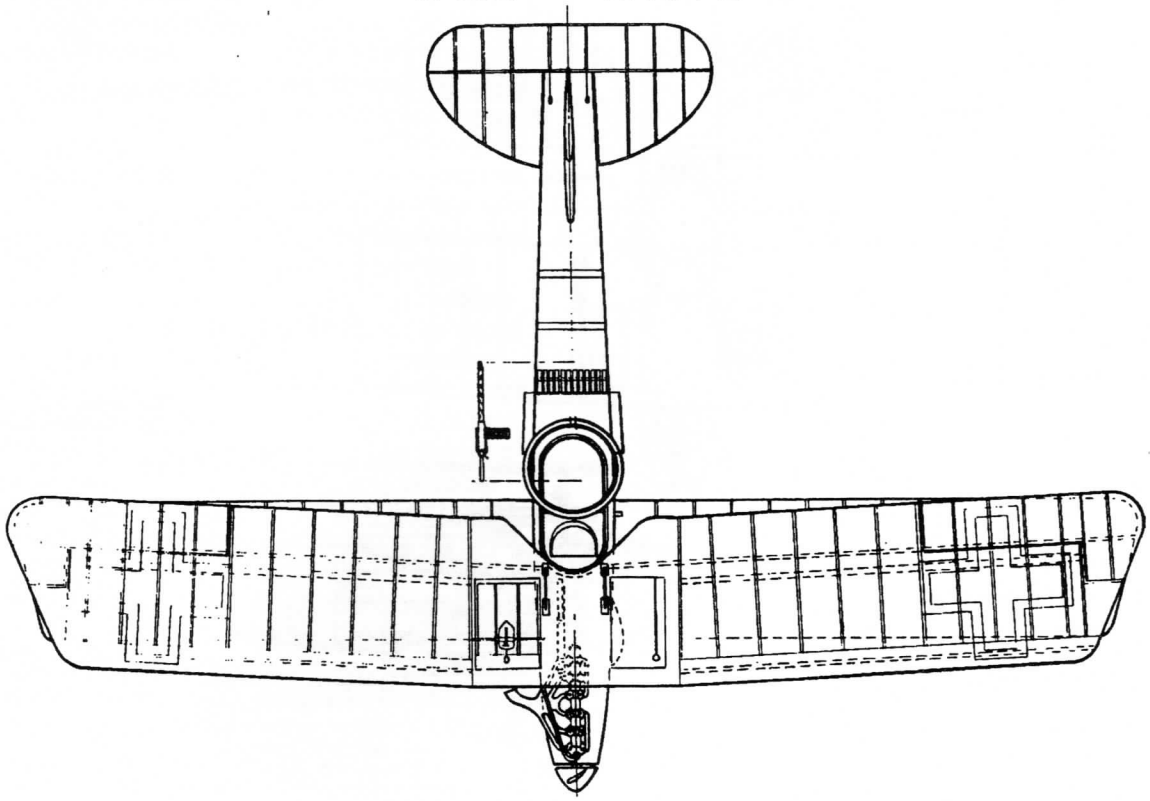


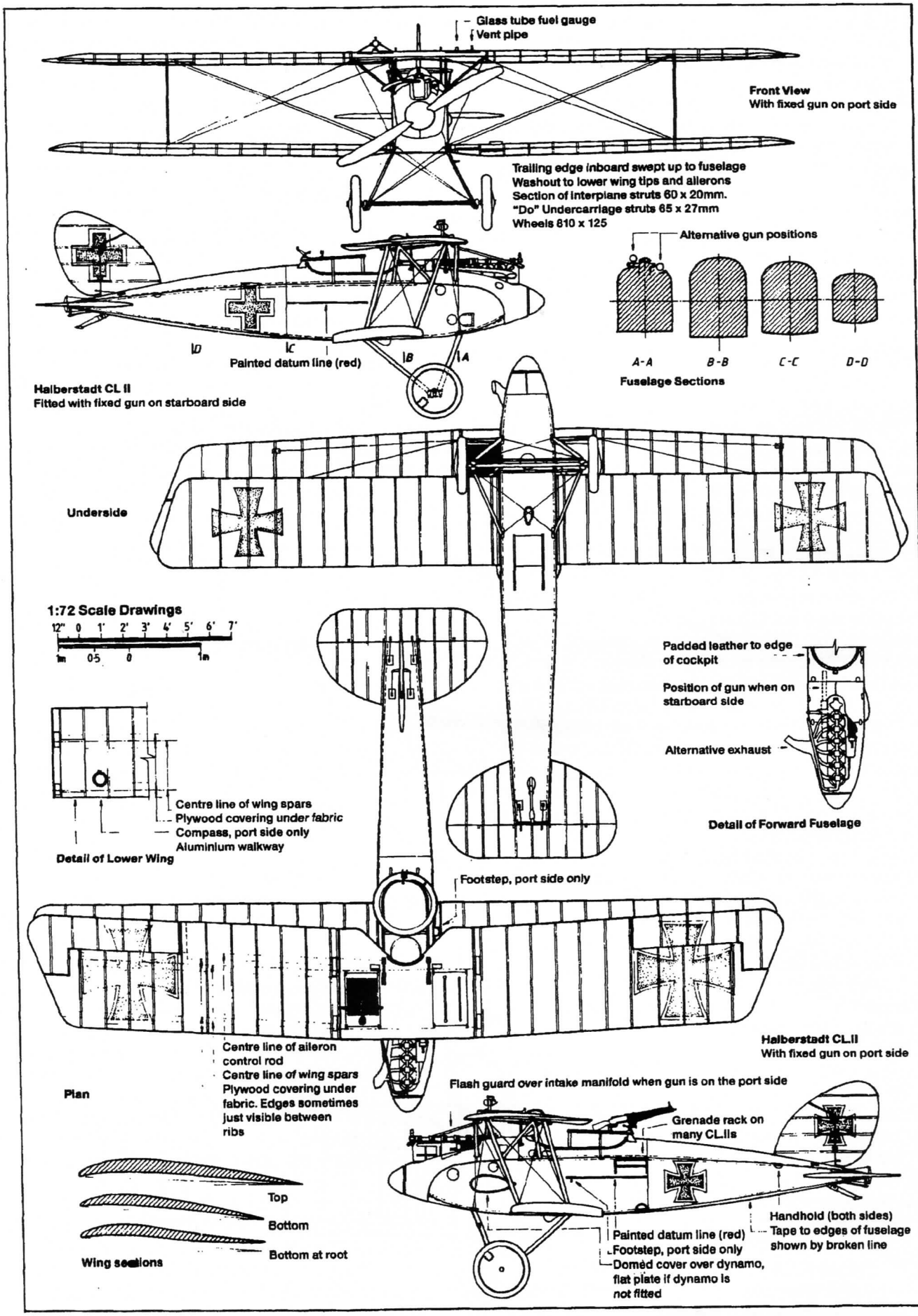
▲ Propeller

Scale
0 1 2 3 4 5 6 7 8ft
0 1 2m

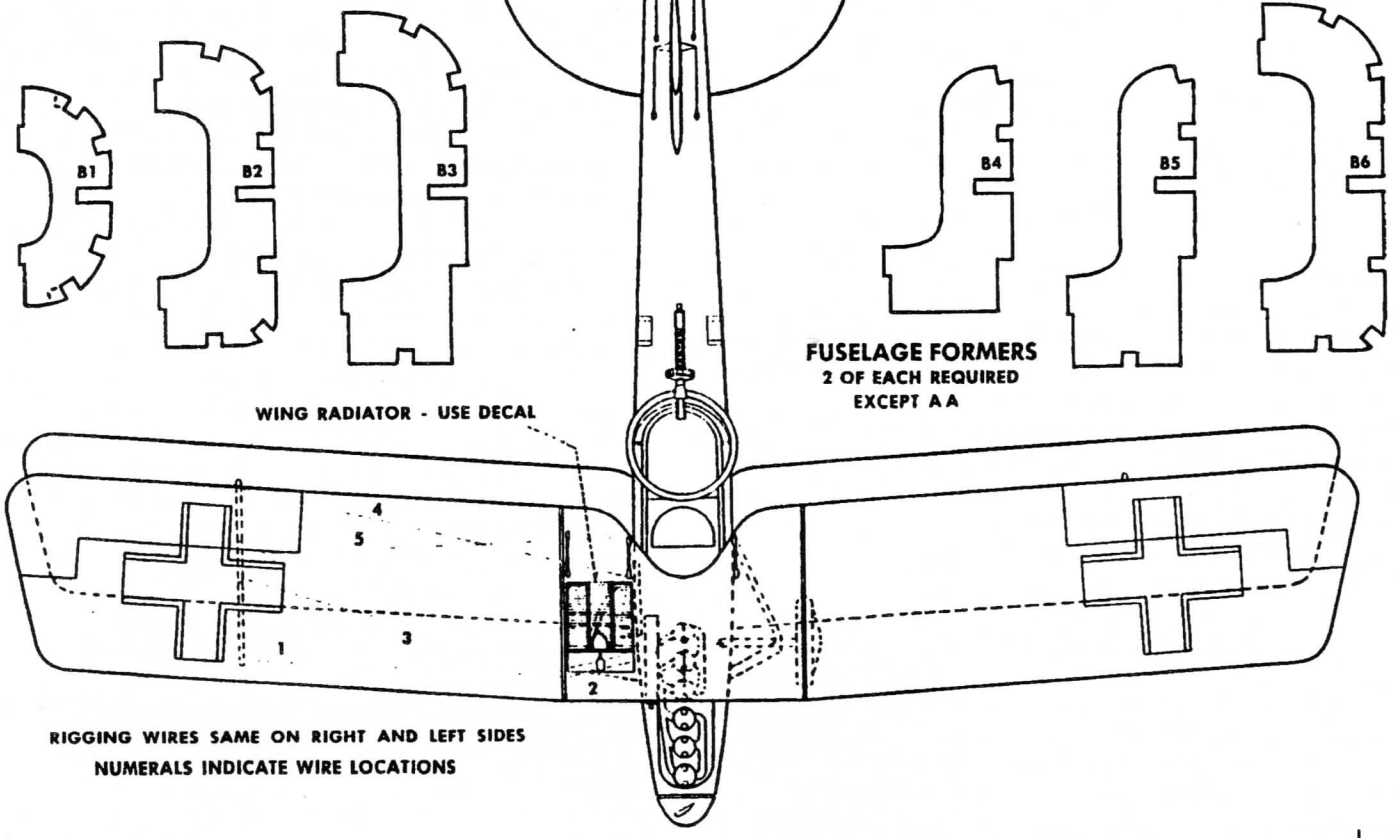




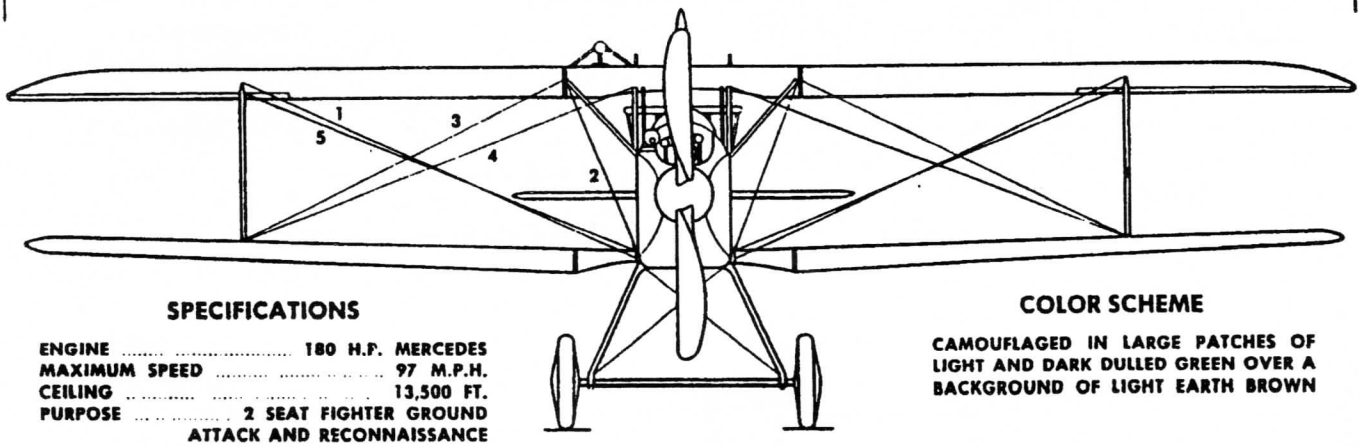




GUILLOW 3V



FULL SIZE WING SPAN 35'-3"

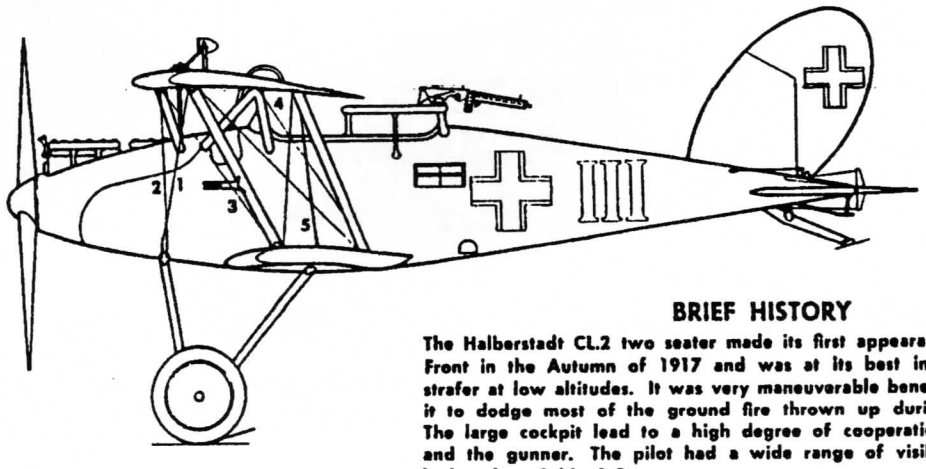


SPECIFICATIONS

ENGINE	180 H.P. MERCEDES
MAXIMUM SPEED	97 M.P.H.
CEILING	13,500 FT.
PURPOSE	2 SEAT FIGHTER GROUND ATTACK AND RECONNAISSANCE

COLOR SCHEME

CAMOUFLAGED IN LARGE PATCHES OF LIGHT AND DARK DULLED GREEN OVER A BACKGROUND OF LIGHT EARTH BROWN



BRIEF HISTORY

The Halberstadt CL.2 two seater made its first appearance over the Western Front in the Autumn of 1917 and was at its best in the role of ground-strafer at low altitudes. It was very maneuverable beneath 1000 ft., enabling it to dodge most of the ground fire thrown up during a straffing attack. The large cockpit lead to a high degree of cooperation between the pilot and the gunner. The pilot had a wide range of visibility and the gunner had a clear field of fire.

18 " Guillow WWI models

WW1	Albatross D5A	WW7	Bristol Bullet
WW2	Nieuport 28	WW8	Nieuport 27
WW3	SPAD	WW9	Fokker D-8
WW4	Fokker D-7	WW10	Sopwith Snipe
WW5	SE-5	WW11	Pfalz D-3
WW6	Sopwith Camel	WW12	Halberstadt CI-2

Halberstadt Critiques

The most annoying problem with the profile view of the Guillow kit is the too sharp nose and overly long u/c legs. Of course the profile slope of the front cabine and Pfalz like tail don't help either and the lower wing should not be swept. The cabine, tail, and wing are easily fixed and we'll forgive the extra gap and longer u/c. After much study a simple fix for the front fuselage was arrived at. Flatten the fuselage contour from the cockpit forward and curve the nose in from B2 to a 5/8th in. dia. spinner base and use a blunter spinner or none. They did fly with out spinners.

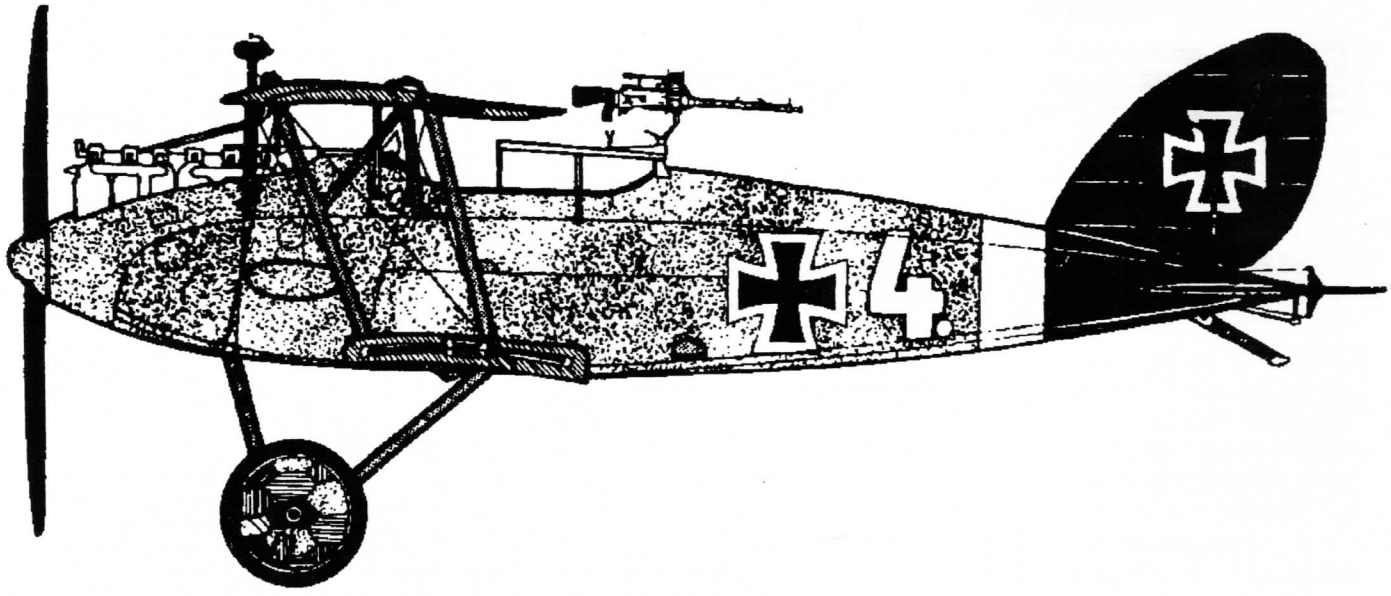
HALBERSTADT COLORS

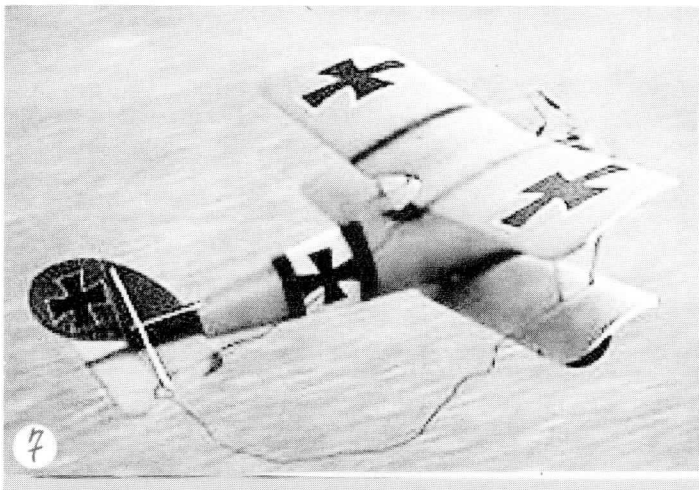
The Halberstadt CL.II factory finish is detailed in a British report. The fabric-covered surfaces of the wings, tailplane, fin and rudder were covered with lozenge fabric, usually five-color. The fabric on the wings was applied at an angle of 45 degrees to the spars. As for the plywood-covered fuselage and upper wing center section, they were covered with a "scrumble" of colours in indefinite areas and shading into one another. The colors used are a cloudy yellow, dark and light green, mauve, and red-brown. The belly of the fuselage and under side wing center section were yellow (varnished plywood). Chuck Wojtkiewicz has developed a method of applying this "scrumble" with a torn sponge as a stamp using acrylic paints.

PHOTO PAGES

7. Another electric powered R/C by Stew -- the all foam Pfalz available from Hobby Lobby and other sources. Here it is taking off for a short test flight from the parking lot at our College Park Airport Meeting location. This is what small electric scale R/C is all about --there are many locations suitable for flying them.
8. The Nakajima 91 by Nate Sturman -- Nate sent the photo and his plan will be featured in the March/April issue of MAXFAX.
9. Lindsey Smith sent this photo of his photogenic Airmodel Tigermoth.
10. John Hunton adapted an AirHog compressed air motor to his Herr GeeBee -- Our local CA Guru Bert Phillips did the pumping --some fairly good flights.
11. Our master model builder Bob Schlosberg sent this photo from way out in Arizona of his Hollandair 'Libel' H-100. It is a double size version of Walt Mooney's Peanut plan.
12. Another pretty aircraft, John Lewars Comper Swift Peanut -- great photo by Tom Hallman.
13. Wally Farrell waits for the Mass Launch countdown with his 10-center Fokker D-VII.

You have the choice of either Maltese or Latin crosses and a wild variety of staffel markings such as the black tailed Schlafta 2 below. White stripes were often applied to wings and/or tail as identifiers on this ground attack machine to ward off 'friendly' fire. See the 'Circus Colors" illustration on the back cover. Go get Windsock Datafile #27 for details.





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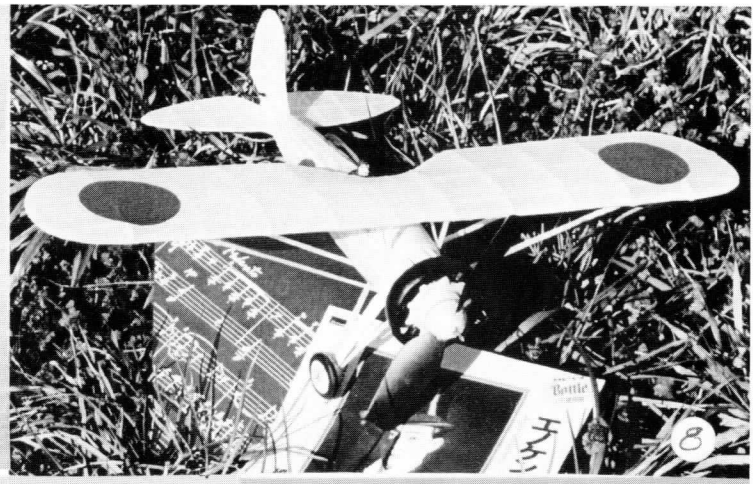

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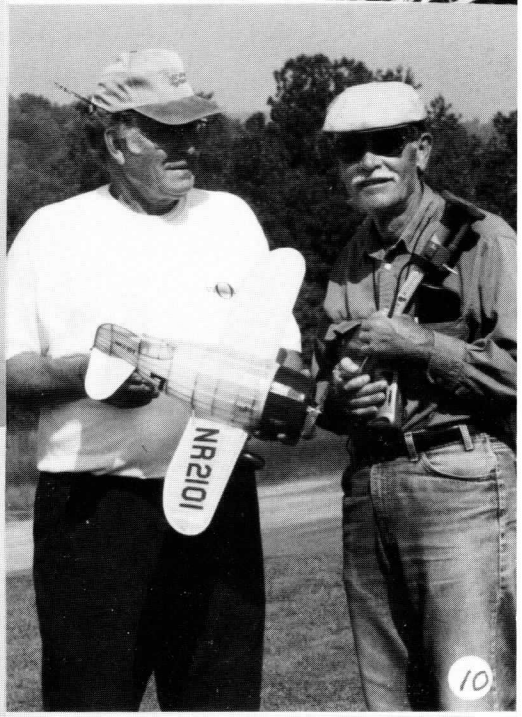
9



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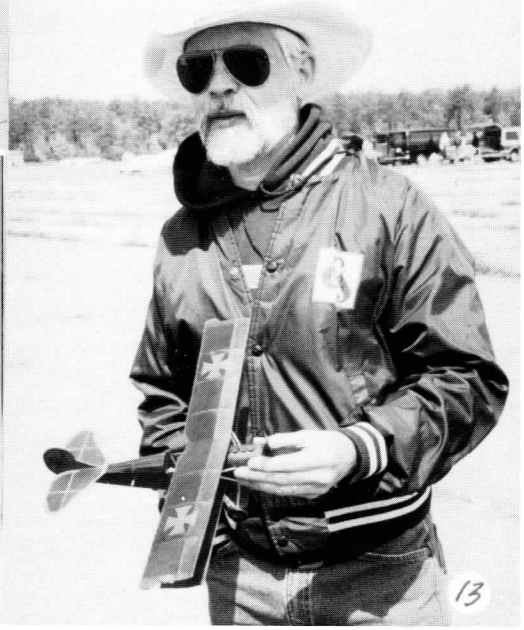
11

12



13

Eastern U.S. Free Flight Championships
AAA Contest at Ingleside, MD Eastern Shore
Tom Kerr & Joe Wagner CD's
Saturday and Sunday, April 8 and 9, 2000
FAC Events Both Days, Sponsored by the SOTs and Maxecuters

Saturday, April 8, 10Am to 6PM

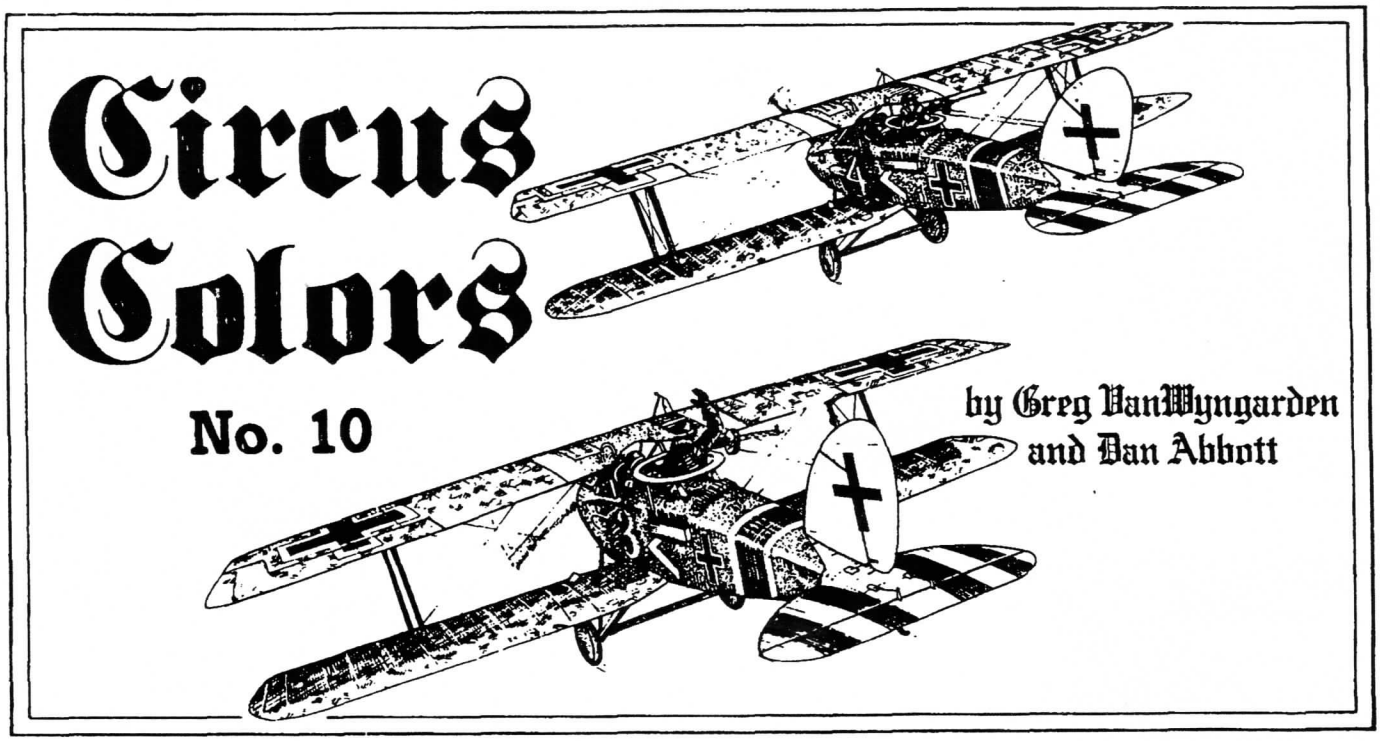
FAC Mass Launch Events:
WWI (rigging not required)
WWII
Racers
(any FAC racing event racer can enter)
Dime Scale
No Cal (WWII fighters only!)

Sunday, April 9, 8AM to 4PM

FAC Timed Events
FAC Rubber Scale
FAC Power Scale
Embryo

FAC Mass Launch Events
PeaNut Scale
Golden Age Scale

For further FAC event details, call Rus Sandusky at 410-668-3056

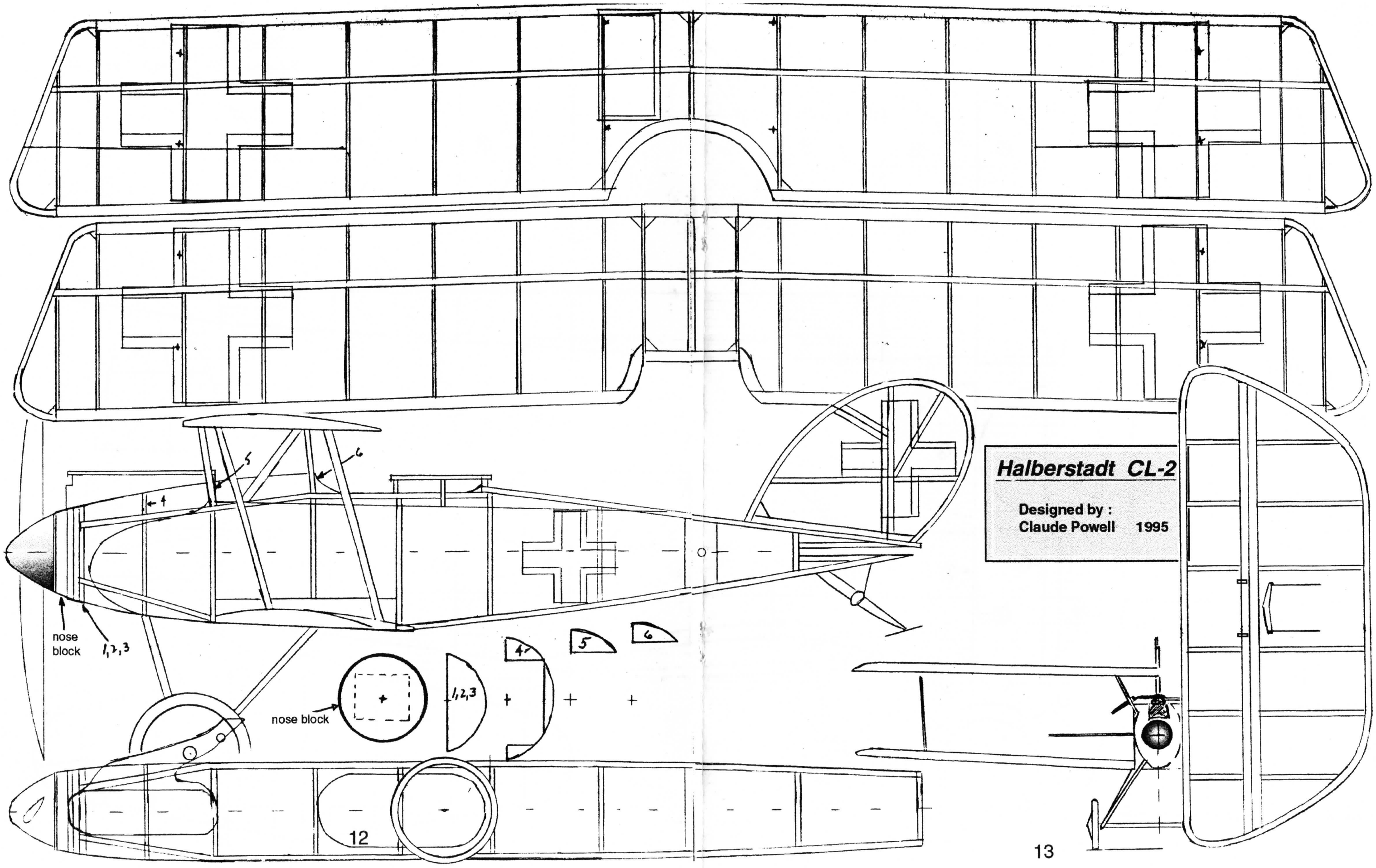


NOTE : Your Dues Are Due

CLUB OFFICERS President: Hurst Bowers, 1649 Birch Rd., Mclean, VA 22101
Secretary: Bert Phillips, 1709 Crofton Pky, Crofton, MD 21114-2305
Treasurer: Stew Meyers, 8304 Whitman Dr., Bethesda, MD 20817

MEETINGS - The D.C. MAXECUTERS hold meetings on the first Tuesday of every month at the College Park Airport, the oldest continuously operating airport in the world.

MEMBERSHIP - Dues for membership in the D.C.MAXECUTERS are $15 per year for residents of the USA, Canada, and Mexico, and $25 for all other countries. Your mailing label indicates the year and month of the last issue of your current membership. A red "X" in the box above is a reminder that your dues are due. Send a check, payable to the "D.C. MAXECUTERS", to the treasurer.



Halberstadt CL-2

Designed by :
Claude Powell 1995

VULTEE BT-15

DESIGNED BY CLAUDE POWELL
1997