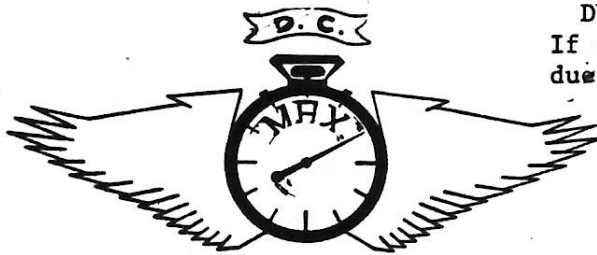


PRESIDENT & SENIOR EDITOR
ALLAN SCHANZLE
8311 Exodus Dr.
Hagersburg, MD 20760
(301) 840-9883



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MAXCUTERS

"MEETING AT COLLEGE PARK AIRPORT - THE NATION'S OLDEST"

"INCLUDES BLUE FLIGHT-POTOMAC PURSUIT SQUADRON NEWS"

MAX - FAX

JULY-AUGUST 1980

NEXT MEETING DATES: No August meeting, Sept. 3, Oct. 1.

TIME: 7:30 p.m.

LOCATION: College Park Airport

CONTEST CALENDER:

- Aug. 8-10 - 2nd Flying Aces Nationals - Wright Field, Dayton, Ohio
 - Aug. 10-17 - AMA Nats, Dayton, Ohio
 - Aug. 24 - Eastern States Champs - Johnsville, Pa.
 - Sept. 6 - D.C. Maxcuters Summer Fun Fly. See Flyer, in this issue.
 - Oct. ? - FAC GHQ Fall Contest, Durham, Conn.
-

CLUB NEWS

Allan Schanzle

This issue begins a new concept with MAX-FAX. Each issue will be under the control of a single individual, but our traditional contributors will continue, we hope, to support this newsletter with their bi-monthly words of wisdom. Allan Schanzle is in charge of this issue, and Don Srull, Hurst Bowers, Tom Schmitt, Stew Meyers, and Bill Winter have each agree to take charge of one issue.

With this philosophy, no one individual will be burdened, as Pat Daily has been in the past, with getting something put together every two months. It should also introduce an interesting variation in the theme and technique for presentation. We may even instill a little competitive spirit in putting out a newsletter just a tweek better than the previous guy, but please, lets not go overboard. The individual in charge for each issue will collect separate contributions and put the thing together.

A group effort will then take it to the copier, pick it up, staple together, stick on the lables, circle those whose dues are due, put on the stamp, fold the monster, staple again, and take it to the Post Office. Yep, your right; it does take some time to put together a respectable newsletter

Needless to say, any of you folks out there that would like to make a contribution, please put pen in hand and get going. We now send out 118 of these newsletters, so there must be some of you who have original plans, ideas, photos, or suggestions as to what you would like to see in MAX-FAX. One request has been made that I know of, and that relates to boxes used to carry models. Sometime in the near future we'll include a section on this subject.

The next item concerns your mailing lables. I've computerized this in an effort to minimize the work, but even so, this is a first class pain in the center hip pocket. The past lables had a month listed next to your name, and that was the month your 9 smackers were due. But then people would pay in January when their dues were due in July, and keeping the books became a second pain in the tush, not to mention the work required to find out whether a subscriber had paid 6 months early or 6 months late. Sooooooooo..... from now on, you will find some numbers (or an "F" = free, JR= junior) next to your name, and these can be decoded as follows:

Joe Thermal
O.O.S. Rd.
Skysville, USA

YYMM

The YY digits are the year and MM the number of the month of the last issue of MAX-FAX coming your way, at least according to our records. For example, 8104 says your last issue will be dated March/April 1981. Needless to say, this still takes some work to update the mailing list every two months unless I were to write a much more sophisticated program for the lables, and I can't justify that at this time. So please-check your records and see if your canceled checks confirm what is printed on your lable. If you find something screwed up, drop me a note with a copy of a canceled check and I'll have a talk with the computer. And oh yes; make the checks payable to D.C. Maxcuters.

Also, your copy of MAX-FAX will be marked in red in the upper right hand section of page 1 for the last two issues before your membership expires. After that, your O.O.S. with MAX-FAX.

So much for general ramblings. This issue has some plans by Don Srull for a Siemens-Schukert E-1 (designed about 1968), photos by Tom Schmitt, a bunch of construction hints by yours truly, and some other goodies of general interest.

PANEL LINES

Allan Schanzle

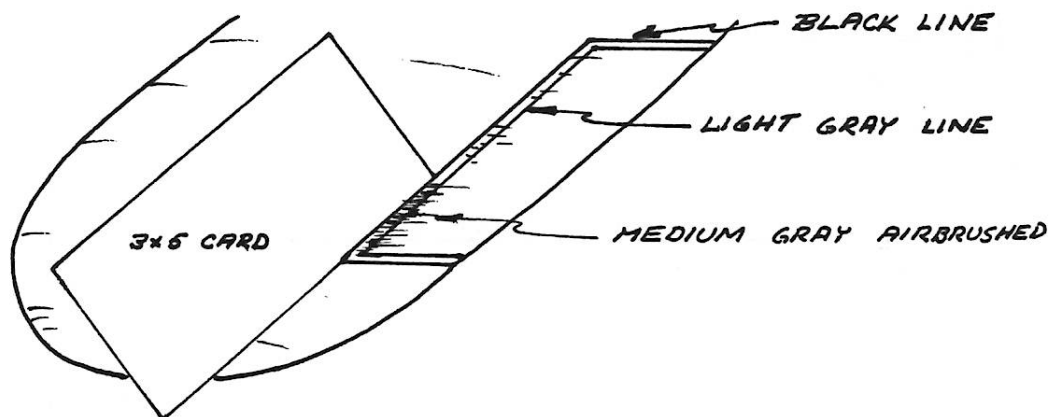
The new 1980/1981 rules for indoor and outdoor F/F rubber scale state the following: "...on metal or plywood covered aircraft in which the internal structure is not visible, major panel seams, joints, and fasteners should be indicated with ink, paint, tissue strips, etc., to receive maximum scale points." So now there is no penalty for simulating metal covered aircraft by using tissue, provided you show the major panel lines, which traditionally are indicated by drawing black lines on the model after

it has been painted. While this does the job, it's about as aesthetically pleasing as observing the growth of crabgrass. If you look at some of Dave Platts models you can't help but think he has discovered a chemical for "instant shrink" of real aircraft. Everything is subtle-no obvious lines for suggesting panels. So again, there must be a better way than the traditional approach.

Several ideas have crept into the gray matter, and all look better than just drawing lines. For example, how 'bout drawing the lines first, then spray painting over these lines. It makes them much less obvious. And lets not just stick to black ink to draw lines. Try white, gray, or silver ink if you can find some. It doesn't take as much paint to obscure the lines.

When it comes to lines for indicating moveable surfaces, such as ailerons, try the following. Draw a black line as thin as possible to indicate the aileron outline, and draw an adjacent light gray line, about 1/32" wide, as shown in the figure below. Now take some thinned down paint, the color of the wing, and with a small brush, put a thin wash over the light gray line. Finally, put a 3 x 5 card next to the black line and very lightly airbrush, in the direction of leading edge to trailing edge, some medium gray paint for the effect of dirt and streaking. Don't go overboard with the airbrush. One third of the aileron chord is more than adequate.

Here's something I just discovered today. (July 15). Some panel lines, such as in WW-II aircraft, are hardly discernible. These can be simulated after the painting is completed by using, are you ready for this, a soft (2H) pencil!!!! You bet-and if you don't like their location, erase the bloody-fool things. When finished, rub gently with the eraser in the direction of airflow to give the hint of streaking. Good grief!!! The simplicity of it all.



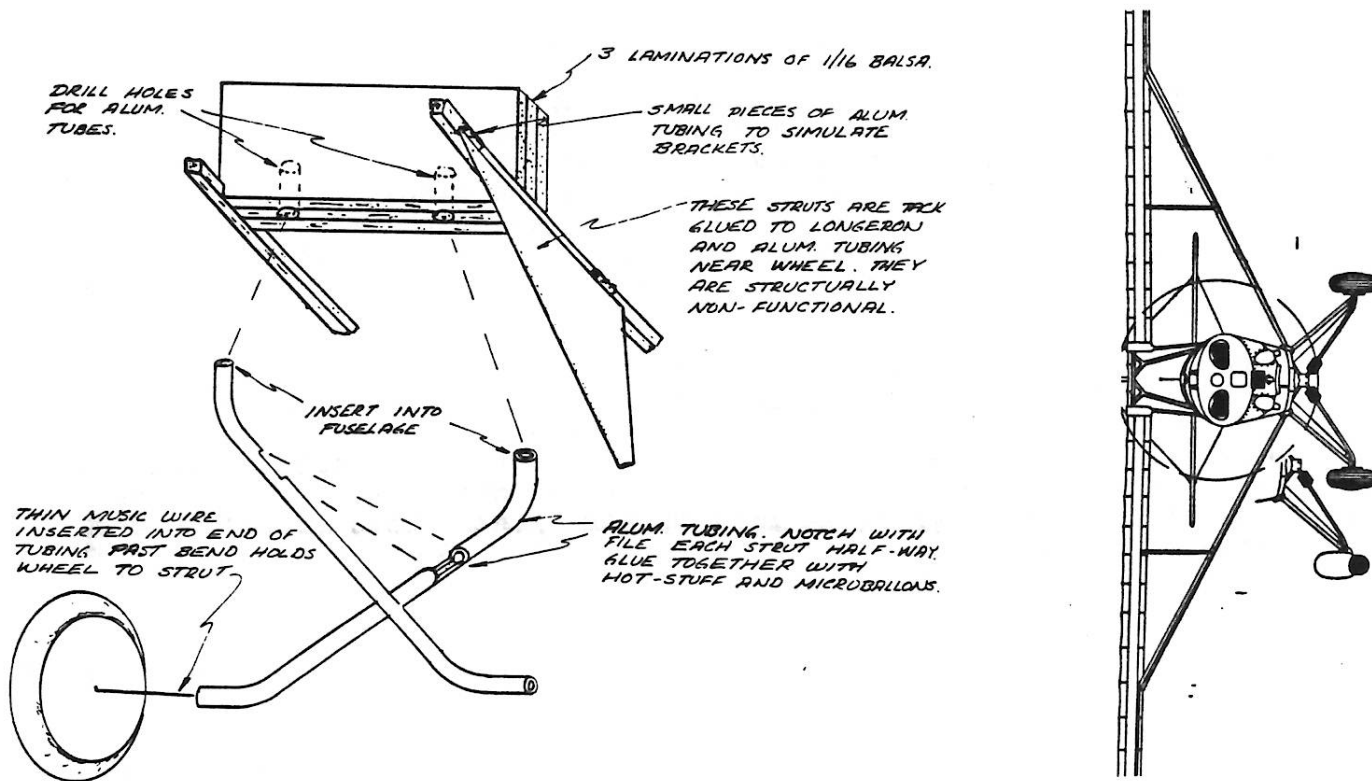
LANDING GEAR DESIGN

Allan Schanzle

I recently built a Porterfield Collegiate from an old TERN AERO kit, and decided that there had to be a way to avoid those crunched lower fuselage longerons, compliments of the landing gear, with each hard landing. I

also wanted a true scale appearance, which is tough, since the steel tubing on the full scale shock struts have curves near the wheels (See the drawing, lightfingered from American Aircraft Modeler, Aug. 1968). For some silly reason, known only to Murphy, I've never been able to get balsa to bend and stay in said position. But alas, there had to be a way. What evolved doesn't take much extra time, but it survived several severe prangs at the Hindenburg Hilton at Lakehurst, N.J. this past April.

The basic idea is to use small diameter aluminum tubing, which can be easily bent to the desired shape (See sketch). Using three laminations of balsa in the fuselage gives a firm hold for the tubing. Gads!!!-- it's so simple. Why didn't I do this years ago.



MAKING AND APPLICATION OF SCALE NUMBERS AND LETTERS

Allan Schanzle

One of the things that make scale models look good are letters and numbers that are well defined and neatly applied. I've tried quite a few different techniques, however, one has worked out better than others. Naturally, it takes the most time and is the most tedious, but that sorta follows from good 'ole Murphy.

Start by collecting the following:

1. A good quality metal straight edge.
2. A sheet of K&E 10 x 10 to the centimeter graph paper.
3. Some new #11 X-ACTO knife blades.
4. Colored (or spray painted) tissue paper that matches the color of your scale documentation.
5. A piece of clear glass that can be illuminated from underneath. I use a photographers slide sorter, which uses plastic rather than glass.

6. Scotch tape.
7. A sharp pointed water soluble felt tip marker. "Pilot" makes a pen called "Razor Point" which is good.

To begin, draw the letters and numbers to proper size and shape on the graph paper. You'll find the small grid very useful for getting uniform looking outlines. Of course, if you can find rub on letters the proper size, swell. Put them on a piece of vellum drawing paper.

After each letter is drawn, color the interior of each letter with the felt tip marker. Next, put 2 or 3 layers of scotch tape over each letter. This will protect your drawings for future use. Now tape the piece of graph paper to the glass. We're now ready to cut out the symbols, but first, lets discuss the source of tissue paper. If your intention is to create black letters, then good 'ole black tissue does a fine job. Stay away from the stuff at the local art store, as this is too porous.

If your needs are not satisfied by colored tissue, then create your own by spraying or hand painting any water proof dope. I've used POLLY-S with good success, but I would think any other dope would work well.

Now put a rectangular piece of this colored tissue, somewhat larger than one letter, over the graph paper and hold it down on all four sides with tape. Turn on the light under the glass, and you're ready to start cutting.


Using a new #11 blade (old ones make the task a memorable disaster) and the metal straight edge (or a french curve, if necessary) cut out the letters. There are some tricks to selecting which edges to cut first so as to minimize slippage of the tissue, but that varies with each letter or number. I've tried cutting two letters at a time by taping two layers of tissue over the graph paper, but this has produced varied results, depending upon the complexity of the letter being produced.

Now let's put these little suckers on the plane. We'll assume it's been covered, doped, and painted. If you're using black tissue, hold a number in position with one hand, and take a small bursh dipped in acetone in the other. Touch the letter with the brush and watch capillary action do its thing. The acetone will dissolve the dope on the wing under the letter and make it stick. Keep the amount of acetone to a mininum. I've never encountered any bleeding thru, but too much acetone would probably cause such a situation.

If you're using painted tissue, then here's a trick I just learned while working on my Spitfire for the AMA NATS. Make sure the dope or paint is completely dry. Then cut out the symbol as noted above, and soak both sides of this symbol with water. Also put water on the model in the vicinity of where the symbol is to be applied. This will let you slide the little devil around for proper placement on the model. Work any wrinkles out, applying more water if necessary. Thin down some white glue (1 part water, 1 part glue) and apply this adhesive only around the edges of the symbol. Again watch mother nature do her thing, as the glue is drawn under the edge of the symbol. Remove any excess with a damp cloth. Let it dry, and bingo--you've got a neat looking set of markings.


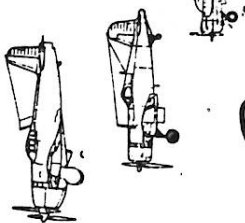
SPECIAL THANKS TO LORIE SCHANZLE FOR TYPING THIS ISSUE!

- 1) The bones of Allan Schanzle's Spitfire. Notice the scale rib spacing for ailerons, elevator, and rudder. Also, the wing spars, which converge at tips.
- 2) The instrument panel in the Spitfire. Technique discussed in this issue.
- 3) Another angle of the Spitfire. Uses laminated formers and sliced ribs. Wing span is 28 inches. These bones, as shown in pictures, weigh 1.25oz. All up weight, ready to fly with rubber and landing gear is 2.7oz.
- 4) Don Srulls Jumbo Santos Dumont Bis 14 to survey "Shangrila". Note "fangs", used to minimize damage to front end during testing.
- 5) Pat Daily launches his Hurricane for test flight. Will probably be finished in Battle of Britain Colors.
- 6) Don Srull launches the Santos Dumont. This one will get attention of all FAC'ers at Dayton.
- 7) Pat Dailys Nieuport, powered by CO₂, makes turn on final approach.
- 8) The Nieuport, with Jon Pierre at the controls, arised again to search for enemy aircraft over La Ferte'-sous Jouarre.



FUN FLY

D.C. MAXECUTERS SUMMER '80

DATE: SEPT 6 (rain date SEPT 7)
 LOCATION: COMSAJ FIELD
 TIME: 9AM till dark
 ENTRY FEES: \$2 per plane
 \$5 unlimited entry
 Juniors (under 16) free

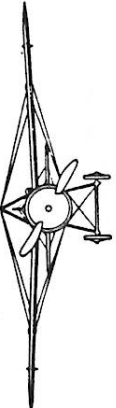



EVENTS AND TIMES

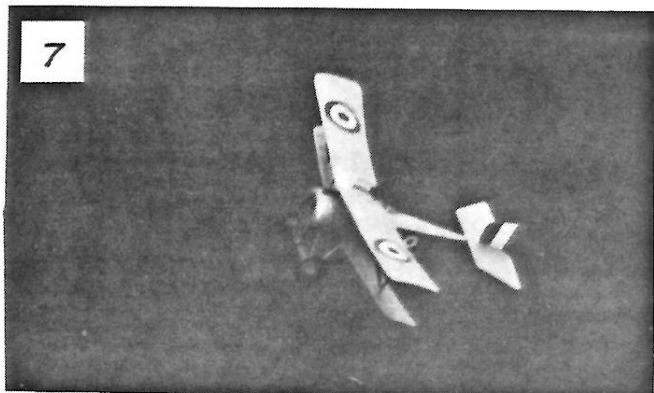
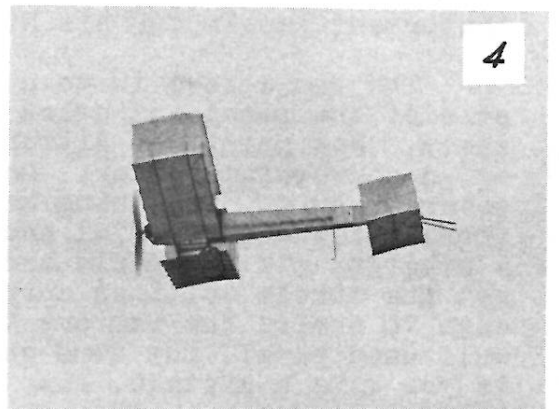
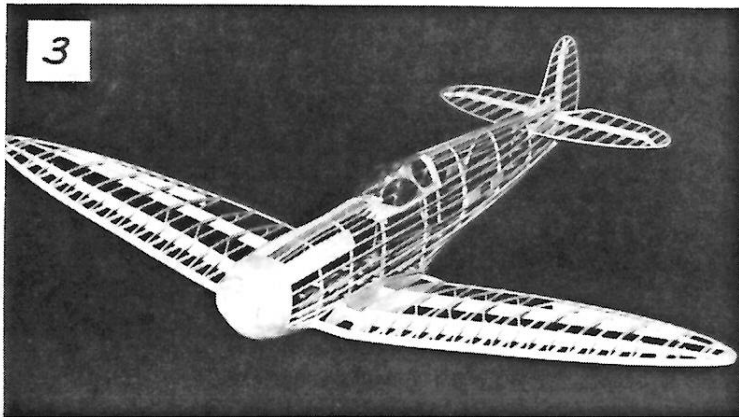
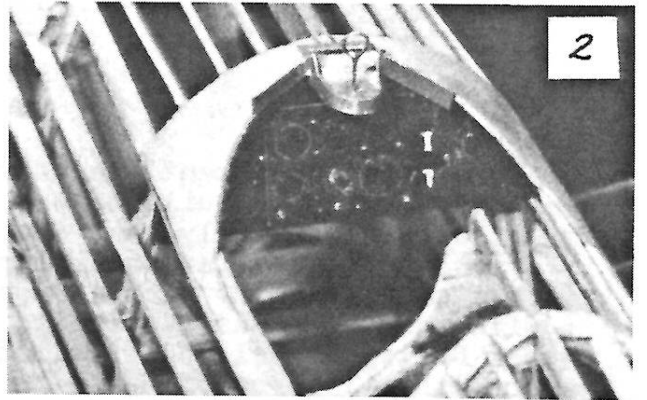
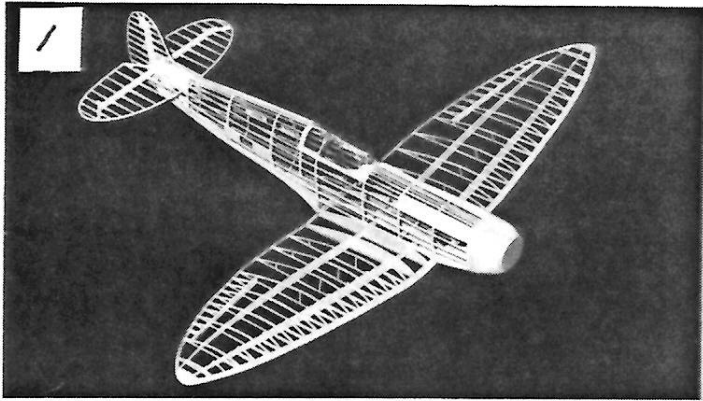
1. F.A.C. SCALE - must present plane for judging by noon or earlier--need to make at least one official flight for judging.
- * 2. WORLD WAR I COMBAT -- 1 PM
- * 3. WORLD WAR II COMBAT -- 2 PM
- * 4. THOMPSON-GREVE RACES -- 3 PM - any Thompson or Greve Race including MR MOLLIGAN OR PAGE NAVY RACER
- * 5. Golden Age -- 4 PM - any plane 1920-1935
- * 6. Battle of Britain Combat-- any plane in Battle of Britain 5PM
7. EMBRWO ENDURANCE
8. Catapult Glider
9. Hand Lanuch Glider

CONTEST DIRECTOR:
 ALLAN SCHANZLE
 840-9883

NOTE: ALL MASS LAUNCH EVENTS WILL ADHERE TO THE 40 POINT MINIMUM FOR APPEARANCE AND SCALE JUDGING

THE DECISIONS OF THE JUDGES WILL BE FINAL



INSTRUMENT PANELS

Allan Schanzle

The Spitfire I mentioned earlier has become a labor of love. I've committed myself to building the best model I've ever constructed. The AMA rules state clearly that the instrument panel is not to be judged, but it sure can leave a favorable impression on the judge when it come to "workmanship" points. I tried several different techniques before I came up with something that satisfied the ego. I showed the results to local member Dudley Prisel and supplied him with the basic ingredient-sticky back paper with silver coloring on the non-sticky side. If you can't find any of this paper, you can lightfinger a product from the,.....oh good grief, forgive me, R/C boys, and try some silver trim monocote. Dudley made some instrument panels for his RYAN ST and they are superb.

The basic idea is to cut a piece of the silver sticky back paper to the size of the panel and stick it to a similar sized piece of 1/32 inch balsa sheet. Now paint the silver with 2 or 3 coats of Floquil "grimmy black" or an appropriate color. Let it dry for 30 minutes, but not more than several hours. Something happens to the Floquil after several hours which prohibits the successful accomplishment of the next step, which is to take a straight pin or needle and a circle template and scribe thru the paint to get the circle outlines corresponding to the instruments. Then use a straight edge to scribe the various tick marks on the instruments. If you want a well used panel, put some scratches in the little devil. And best of all, if you make a mistake, simply repaint and rescribe.

To get a glossy appearance over the instruments, put a drop of any clear drying glue (such as MICRO KRISTAL KLEER) over the dial. Dudley used decal liquid, and it looked great.

REALISTIC FINISHES FOR WW-II AIRCRAFT

Allan Schanzle

Here we go again with the Spitfire, but I've learned a wealth of information while constructing this plane. Lets start with the choice of paint. I've tried Sig and Aero Gloss without much success. Then it was Floquil, and that works well, but it still requires an acetone type thinner, and I'm hearing more and more from the medical community about the long term effects of exposure to such chemicals. So the other alternative is POLLY-S, another product of Floquil, but this one is water soluble until it is dry, and then water no longer affects the end product. Somewhere, I read that denatured alcohol is a good thinner, and I agree. It works better than water.

In general, the POLLY-S is a superb product. The bottles are small and cost about 85 cents each, but when you airbrush this product with a thinning rate of 3 or 4 parts alcohol to 1 part of paint, you get a lot of covered area for your money. The paint gives a flat finish and comes in military colors, as well as a variety of standard reds, blues, and others.

Now here is the beauty of POLLY-S. Most WW-II fighters had fuel tanks in the wings, and your typical GI wasn't exactly Mr. Clean when it came to wiping up any spills. So if you look at photos of these war birds, you'll see fuel stains around the fuel tank caps. To simulate these spills (and other oil stains) simply set the plane on a surface which simulates an "on ground" configuration, and put a drop or two of alcohol on the wing at the fuel tank cap position. Let the alcohol run where it will. After it evaporates, you will see a lovely outline of a typical fuel spill.

C. A. V. U.

"Ceiling and Visibility Unlimited"

by Rolfe Gregory

Along about this time of year my thoughts always turn to the impending NATS, the World Series of Aeromodeling. This year we can enjoy a double header because it will be preceded by the FAC Nationals at Wright Field on August 8,9,&10 as you probably know. Some of the many interesting features are the racing events-Thompson, Greve, Aerol-copies in the miniature of those long ago trophy events of the National Air Races. Funny thing, the model events arouse almost as much excitement today as the full scale races did years ago, to a smaller group of course!

Along about this time of the year many thoughts turn back also to those full scale Nationals at Cleveland, the World Series of air racing. Looking at my small rubber powered model of "Suzy" brings back memories of those days and of the pilots name lettered under the cockpit: R.A. Kling.

In 1938 a fellow employee at Luscombe Aircraft Co. in Trenton, Ralph Coston who hailed from Corpus Christi Texas, and I drove to the Cleveland races. One thing we should have learned from previous races was never go without room reservations unless you are prepared to sleep in your car, under the wing of an airplane, or on a park bench. We had left Trenton N.J. at 4 a.m. and at 1 a.m. next morning we had not found a place to lay our weary bones. We stopped at a drive-in hamburger stand and Coston asked if they knew of anyplace we might find a room. Someone in another car overheard and said "I know of a place, follow us". They led us on a merry chase all over the Ohio country side and for a while we began to think they were just having fun at our expense. However, they finally stopped at a house in a small town named BEREA near the Cleveland airport. A girl from the car ran into the house. A few minutes later lights came on and we were invited in. (I hate to disappoint you but its not going to be that kind of story!)

The girl's mother said they had a bedroom they usually rented only during the Air Races each year and that it was vacant. We were so tired we would have slept on the floor. She showed us the room and I noticed a framed picture of a man and woman who seemed familiar. "Yes" she said, "Mr. and Mrs Rudy Kling always had this room during the races but, unfortunalely, they won't be here this year-you know Mr. Kling was killed in a race at Miami last December. What a shame. they were such a nice couple".

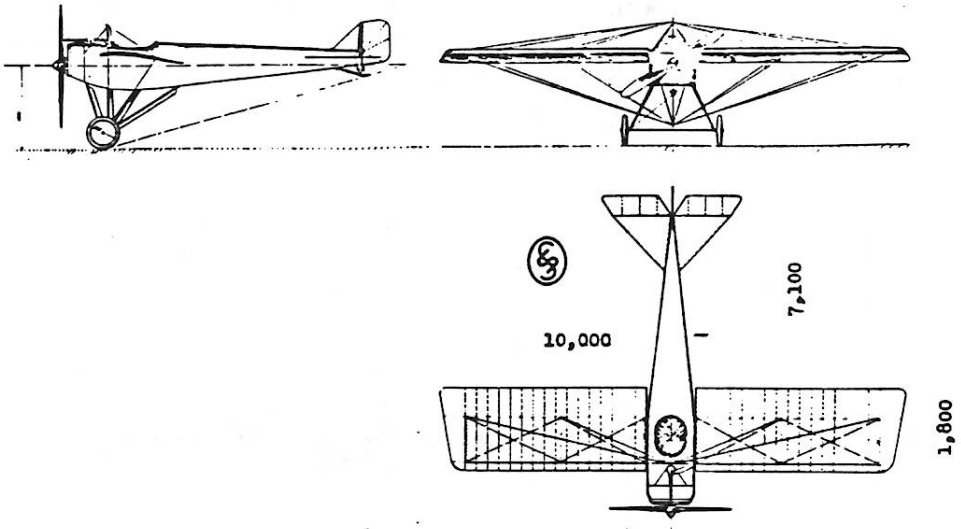
ARTHRITIS IS TWINGES
IN THE HINGES

3-VIEW

FOR THE PLANS

IN THIS ISSUE

A DEFICITE IS WHAT
YOU HAVE WHEN YOU
DON'T HAVE AS MUCH
AS IF YOU HAD
NOTHING



TAKEN FROM THE 1969 DCRC SYMPOSIUM

this guy wants us to believe that not only is weather just one of four major factors affecting airplanes, it's the least in importance!

How come?

Let's take each item now and the answer to this, and a whole lot more, shall be revealed.

Color Perspective

Stand by a tree. Look at it and we see that the bark is brown and the leaves are green, basically, but there are many shades of each. Now move away 100 yards and look again. Right away, the varied shades have disappeared and the trunk is plain brown, the leaves plain green.

Move another quarter-mile and we now see a much more even color throughout -- brown seems less brown and green less green. Matter of fact, it would be difficult to tell just what color a tree is at this distance if we didn't already know so well that it's brown and green.

Move away again -- now the tree is on the horizon a mile-and-a-half away. The color of this tree is now a medium grey all over with no color distinctions.

This effect is known as color perspective. It happens because the air we look through is neither as clean nor as transparent as we think. Between our eyes and the tree, there was airborne dust in untold quantities. And dust is grey.

What difference does this make to our scale model? Consider this: looking at a 1/8 full size model from 10 feet is the same as looking at the real plane from 80 feet away, right? Wrong! It's wrong because when we looked at the big one, there was eight times as much atmosphere between our eyes and the real plane as there was between our eyes and the model. This had the effect of toning-down the colors on the real plane more than those on the model.

We must compensate for this. We do it by giving the model an even and very light spray-coat of medium-grey after the color-scheme is completed and all markings are on. The coat should cover all surfaces including the glass areas.

I gave color-perspective first place on my list because it is the most inevitable. Even a model of a so-called "factory-fresh" and unused airplane is subject to this universal law.

(Having mentioned the words "factory-fresh" let's explode another myth. Many times a builder of a glassy scale model will excuse himself by falling back on the theory that his model represents a "factory-fresh" airplane. So how, one asks, did it get squadron markings and crests, and a victory tally?)

Usage

Chronologically, the next appearance changes to a full-size plane are caused by usage. We can sub-divide this category into these major items:

- a) Dirt and grime
- b) Paint chipping and scratches
- c) Oil and fuel stains
- d) Burns

ADDING REALISM TO RC SCALE MODELS

by Dave Platt

When we construct a scale model we are attempting to reproduce a subject airplane in a miniature, but otherwise identical form. To do this, we scale all the dimensions down by the same factor and this guarantees that our model will be a recognizable facsimile of the Design of that subject.

If we now attend carefully to the color layout and markings of the chosen subject, our model takes on the appearance of that airplane in a more particular way and we now also have the Purpose of the subject.

At this point most builders stop, believing the model to be finished. It isn't. One vital ingredient is missing: one that is more important to the final effectiveness of the model than Purpose or minor niceties of design.

This ingredient is Character. If we forget this, our models will always be just that -- nice models; nothing more. We must somehow capture the air, the dignity, the very soul of this proud machine that flies or stands on a runway like it is King Of the Universe.

Sounds a bit romantic? Well, I'd have to admit that it does. But if we can at least be aware of this mysterious something that radiates or exudes from an airplane, we are on the road to creating a work of art that transcends the Model and becomes a true Replica.

I'm going to assume that the modeler can design, build and paint his model in the correct color scheme; so let's forget about these aspects for a while and discuss how we might inject this Character we've spoken about.

An airplane is a tool. It's a tool for doing a specific job. That job may be to carry passengers or its owner from A to B -- in this case it's a vehicle of transport like a car. Or the job could be to destroy -- to drop bombs, shoot up or shoot down the enemy's tools. Because an airplane is a tool it is subject to the same treatment as any other tool: a whole lot of abuse and a whole little of respect. It's called upon to do its designed job (and more than it was designed for) with unflinching willingness and reliability, coupled with the barest minimum of essential care and maintenance. Let's itemize some of the effects that this love and attention have on the appearance of an airplane and also some other inevitable effects that are not man-made.

I've written them in order of importance:

1. Color perspective
2. Usage
3. Mechanical
4. Weather

In a minute we'll take these items one by one and discuss each more fully. But first, did you notice something about this list? The adding of realistic effects to a model is commonly known as "Weathering". Yet,

e) Damage.

a) is best represented by careful and very soft sprays of dark (charcoal) grey on the completed model. Remember here that dirt normally follows the line-of-flight. Thus, it will form behind protuberances on the aircraft and diminish as the distance from the protuberance increases. Panels of slightly unequal levels, e.g., along wing, stab and fuselage sheeting joints, also show the effect to a lesser extent, especially those opposed to the line-of-flight.

b) Simulate paint chipping and scratches with silver paint on a small stiff-haired brush that has been scrubbed on a piece of scrap paper until almost dry. Then jab the brush on the model to leave irregularly-shaped wear marks.

These marks most commonly occur at the places where the crew enter the plane and where mechanics perform routine work. Fuel fillers, ammunition storage areas and inspection hatches or panels gather wear of this kind in an unbelievably short time in use -- especially military use, where a proud owner is not around to moan about the least mark! I have personally examined a fighter which was withdrawn from service after 6 weeks service; it had precious little paint on the wing roots.

c) Oil and fuel stains are best applied by rubbing the model at the appropriate places with some staining agent on a soft cheesecloth.

d) Burns form around and behind exhaust pipes. Soot from the exhaust often marks an aircraft for several feet. At the recent Kansas Nats we examined Lockheed P2V's with exhaust marks that were very prominent and reached the trailing edge of the wing. Use near-black or fawn, apply by spray.

Before applying such marks, find out whether burns of this kind are characteristic of the type of plane: Skyraiders always mark, Spitfires seldom do.

This brings up an important point. Study as many photos as possible of your chosen subject. Look "through" the jazzy schemes and study the usage-marks, noting which ones seem to occur consistently. Concentrate on these parts of your model.

e) Damage, of course can happen anywhere and to any degree. This is impossible to detail. Just use your imagination.

Mechanical

Mechanical causes of significant appearance changes can be broken down

as:

a) Repairs

b) Holes (bullet and otherwise)

a) Repairs to an aircraft typically take the forms of patches in damaged metal or fabric. Very often, patches in metal structure have fresh paint applied which shows as a sharply contrasting color even when the colors are "the same". Patches in fabric may have the same treatment, or can be painted in red primary-dope which often is left just this way. It is not uncommon to encounter airplanes with dozens of such red patches in wartime.

b) Imagine this situation: Someone decides to add some device or other onto an airplane and goes ahead and bolts it in place. Later, it is decided to remove the gadget. Do you think that they then bother to fill in the holes after removing it? NOT likely! On a trip to the Smithsonian I noticed this on a few aircraft. Here again, use your imagination -- But

don't over-do it.

Weather

So finally we come to weathering. I say finally, because the other things described previously have a rapid effect on the appearance of an airplane, whereas weathering takes time. Even then, the effects are subtle and a good deal of caution is necessary here.

- a) Fading
- b) Cracking and peeling
- c) Rust and other corrosion.

Fading. All paints fade in time. Under certain conditions, such as continued exposure to strong sunlight, fading to a noticeable extent can happen in 2 months.

I simulate fading with a very light coat of pale grey sprayed from a distance and in merging formation. The upper surface of the wings and stab and top of the fuselage fade more rapidly than the sides of the fuselage and the fin; the whole undersurface scarcely at all.

Cracking and peeling are best done by flaking off the odd area of paint with a knife. Here's another trick which I have used: after spraying the color dope and before it has a chance to cure properly and become fuelproof, rub in some fuel on a rag. The paint will lift and flake off.

Rust is easy. Simply buy a pot of Rust enamel from the hobby shop (sold for model railroad use) and paint it on. Don't use too much -- tatty and beaten airplanes may be, but rusty they aren't. The odd spot here and there is all you need.

TOOLS

To finish up, with a short paragraph about the "tools of the trade".

Really, apart from masking tape and some more of the usual stuff found in any modeler's workshop, there is only one tool. This is an airbrush. A really good airbrush. The type of "airbrush" that has a hole which you block with your forefinger to spray, then release to stop, is fine for plastic models but will not do for really intricate detail.

Also, an airbrush with a vertical paint nozzle which is raised or lowered relative to the horizontal air nozzle in order to control the paint flow is no good either because we have to stop spraying in order to alter the setting. What we need is an airbrush which has a trigger that is controllable by a screw, so that we can adjust the flow for more or less paint while spraying. It should be possible to adjust the spray down to the point where a 1/16" diameter "mottie" can be sprayed from a distance of 3" or so, and take several seconds to form.

These simple tests will ensure that you get the right kind of airbrush; one that will serve you for all work. Such brushes are not cheap -- mine cost nearly \$100.00 without the compressor.

The compressor should be fitted with a water trap, or you will be forever blowing out the water which forms when air is compressed. Usually, high-humidity conditions and/or small nozzle openings aggravate this problem.

As with any new-experience area of modeling, mistakes will be made, and first results are far from good. But persistence will pay off. Best of luck and here's to more realistic scale models!

A LIST OF PROFILE PUBLICATIONS

Scale models, and particularly those powered by rubber, have certainly become the dominant interest for the local MAXECUTERS. For those who have entered or judged a scale event, the value of documentation, as well as its presentation to the judge is well appreciated. "Profile Publications" are among the best available, and will be accepted as authentic by any judge involved in our level of scale competition. Unfortunately, Profile Publications are no longer being printed, but I have recently seen books called "AIRCRAFT IN PROFILE", which are extensions of "Profile Publications." Since these are of value and general interest, we thought it would be useful to include a list of all aircraft covered in this series. Happy Hunting.

Aircraft Profile Check List

- | | | | | |
|--------------------------|--------------------------|-------------------------------|---------------------------|---|
| 1 S E 5A | 62 de Havilland D H.9 | 122 Polikarpov I-16 | 182 Handley Page Heyford | 231 Lublin R-XIII variants |
| 2 Boeing P-12E | 63 Fokker D XXI | 123 Reggiane RE 2000 | 183 Consolidated PBV | 232 Martin Maryland & Baltimore (RAF) |
| 3 Focke-Wulf FW 190A | 64 Macchi MC 200 | 124 Curtiss SB 2C-1 Helldiver | Catalina | 233 Kawanishi 4-Motor Flying-Boats |
| 4 Hawker Hunter 6 | 65 Lancaster I | 125 Vickers Wellington I & II | 184 Messerschmitt Bf 109F | (H6K 'Mavis' & H8K 'Emily') |
| 5 Vickers Vimy | 66 Vickers Valiant | 126 Hawker Sea Fury | 185 Yak 9 Series | 234 Heinkel He 177 Greif |
| 6 Bristol Bulldog | 67 Fokker D VIII | 127 Albatross DI-III | 186 Canadair Sabres | 235 Avro Lancaster Mk. II |
| 7 P-47D Thunderbolt | 68 Thomas Morse | 128 Curtiss Shrike | 187 Junkers Monoplanes | 236 Mitsubishi A6M5/8 'Zero-Sen' ('Zeke 52') |
| 8 P-51D Mustang | Scouts | 129 Mitsubishi A6M2 Zero | 188 Fiat G 50 | 237 Bristol F.2B Fighter (RAF: 1918-30s) |
| 9 Albatros DV | 69 Henschel Hs 129 | 130 Messerschmitt Me 262 | 189 Short Sunderland | 238 Mikoyan MiG-21 ('Fishbed') variants |
| 10 Gloster Gauntlet | 70 Nakajima Ki-84 | 131 Lockheed | 190 Mitsubishi A6M3 | 239 LTV (Vought) A-7A/E Corsair II |
| 11 Handley Page | 71 Hawker Seahawk | F-104G/CF-104 | Zero-Sen | 240 Fairey Barracuda Mk. I-V |
| Halifax III | 72 Vickers Viscount 700 | 132 de Havilland Tiger Moth | 191 Westland Whirlwind | 241 Aichi D3A ('Val') & Yokosuka D4Y |
| 12 Gloster Meteor B | 73 Sopwith Triplane | 133 B.E. 2a & 2b | 192 Boeing 707 | ('Judy') Carrier Bombers |
| 13 Sopwith Pup | 74 Short 184 | 134 Fokker G-1 | 193 Bristol M1 A-D | 242 IK Fighters (Yugoslavia: 1930-40s) |
| 14 Boeing P-26A | 75 P.Z.L. P-11 | 135 Dewoitine D 520 | 194 Curtiss SOC Seagull | 243 Avro (Hawker Siddeley) |
| 15 Heinkel He 111H | 76 Junkers Ju 87A & B | 136 Curtiss P-40 Kittyhawk | 195 Potez 63 Series | Shackleton MR 1-3 |
| 16 Fiat CR 42 | 77 Boeing B-17E & F | 137 Bristol Beaufighter | 196 Douglas SBD | 244 Reggiane Re.2001 Falco II, Re.2002 Ariete |
| 17 SPAD S XIII | 78 Gloster Meteor IV | I & II | Dauratless | & Re.2005 Sagittario |
| 18 Hawker Fury 1 | 79 Nieuport 28 | 138 SAAB J-21 | 197 Hawker Tempest I-VI | 245 Boeing B-52A/H Stratofortress |
| 19 Consolidated B-24 | 80 Curtiss Hawk 75 | 139 Bristol Scouts C & D | 198 Hawker P.1127 & | 246 Supermarine Spitfire (Griffons) |
| J Liberator | 81 Hawker Typhoon | 140 Hawker Audax | Kestrel | Mks. XIV/XIX & XVIII |
| 20 N. American F-86A | 82 Mitsubishi Ki-46 | 141 Nakajima B5N "Kate" | 199 Pfa:z D XII | 247 Martin (General Dynamics) B-57A/G |
| Sabre | 83 Boeing B-47 | 142 Short Stirling | 200 Martinsyde Elephant | Canberra |
| 21 Bristol F. 2b Fighter | 84 Short C-Class Boats | 143 Dassault Ouragan | 201 Blich 151 152 | 248 de Havilland D.H.9A (RAF: 1918-30s) |
| 22 Fiat CR 32 | 85 R.E. 8 | 144 de Havilland Rapide | 202 Douglas A-20 Series | 249 Douglas R4D variants |
| 23 Messerschmitt Bf 110 | 86 Schuckert DIII/IV | 145 de Havilland D H 10 | (7a to Boston III) | (USN's DC-3/C-47s) |
| 24 Hawker Hurricane IIC | 87 Fokker C V | 146 S. Marchetti S M 81 | 203 Heinkel He 162 | 250 Title to be announced |
| 25 Fokker D VII | 88 Ilyushin IL2 | 147 M. Sautler M S.406 | 204 Lockheed P2V | 251 Vought-Sikorsky OS2U/OS2N Kingfisher |
| 26 de Havilland D H 4 | 89 Savoia S.M.79 | 148 Junkers Ju 88 | Neptune | already published |
| 27 Boeing F4B-4 | 90 L.T.V. Crusader | Night Fighters | | |
| 28 Macchi C.202 | 91 de Havilland D.H.2 | 149 Lavochkin La 5 & 7 | | |
| 29 Junkers Ju 88A | 92 Grumman F.3F | 150 F4U-4 to F4U-7 Corsair | | |
| 30 N. American F-100 | 93 Bristol Blenheim I | 151 Aviatik D.1 | | |
| Super Sabre | 94 FW 190D/TA 152 | 152 Avia B 534 | | |
| 31 Sopwith Camel | 95 Republic F-84F | 153 AW Whitley | | |
| 32 Westland Wapiti | 96 Douglas DC-3 | 154 Commonwealth | | |
| 33 Gloster Gamecock | 97 American D.H.4 | Wirraway | | |
| 34 Fairey Battle | 98 Gloster Gladiator | 155 North American T-28 | | |
| 35 Curtiss P-40 | 99 Focke-Wulf FW 200 | 156 Ford Tri-Motor | | |
| 36 SAAB J-29 | 100 N. Am. P-51B/C | 157 Breguet 14 | | |
| 37 Curtiss JN-4 | Mustang | 158 Ryan PT ST Series | | |
| 38 Fokker Monoplanes | 101 Boeing B-29 | 159 Westland Lysander | | |
| 39 Supermarine | 102 Douglas A-4 | 160 Mitsubishi G3M "Nell" | | |
| S4-S68 | Skyhawk | 161 Messerschmitt Me | | |
| 40 Messerschmitt | 103 S.E.5 | 210/410 Series | | |
| Bf 109E | 104 P.Z.L. P-23 | 162 Avro Vulcan | | |
| 41 Supermarine Spitfire | 105 Kawasaki Ki-45 | 163 Roland C II | | |
| I & II | 106 Lockheed Lightning | 164 Dornier Do 17E-Z | | |
| 42 N. Am. FJ Fury | P-38J-M | Series | | |
| 43 Pfalz D.III | 107 Grumman F8F | 165 Bell P-39 Airacobra | | |
| 44 Fairey III F | Bearcat | 166 Supermarine Spitfire V | | |
| 45 Curtiss Army Hawks | 108 de Havilland Comet | Series | | |
| 46 Nakajima Ki-43 | 1-4 | 167 Hawker Hunter | | |
| 47 Vought F4U-1 Corsair | 109 Harriot HD1 | 2 Seaters | | |
| 48 D.H. Vampire 5 & 9 | 110 Fiat BR.20 | 168 Avro York | | |
| 49 Nieuport 17 | 111 Hawker Hurricane I | 169 Sopwith Dolphin | | |
| 50 Sopwith Snipe | 112 Martin B-26B C | 170 P.Z.L. P-24 | | |
| 51 Gee Bee Racers | Marauder | 171 Douglas TBD Devastator | | |
| 52 D.H. Mosquito I to IV | 113 Messerschmitt | 172 Mitsubishi Ki-21 | | |
| 53 Grumman Wildcat | Bf 109 G | 173 Loire et Olivier LeO 45 | | |
| 54 E.E. Canberra 1 to 4 | 114 E.E. Lightning 1 | 174 de Havilland Hornet | | |
| 55 Fokker D.R.I | 115 Gotha G.I-G.V | 175 Phoenix Scout | | |
| 56 Fairey Flycatcher | 116 Curtiss Navy Hawks | 176 Fokker T.VIII | | |
| 57 Hawker Hart | 117 Boulton Paul Defiant | 177 Junkers Ju 52 Series | | |
| 58 Handley Page | 118 Kawasaki Ki-61 | 178 Commonwealth | | |
| Hampden | 119 Fiat G.91 | Boomerang | | |
| 59 B-25 Mitchell N.Am. | 120 Lockheed | 179 Gloster Javelin 1-8 | | |
| 60 Douglas Skyraider | Constellation | 180 Sud Caravelle 3 & 6 | | |
| 61 Ansaldo Scouts | 121 Sopwith 1/2 Strutter | 181 de Havilland D.H.5 | | |

MODEL AVIATION IS LIKE A SEWER - WHAT YOU GET OUT OF IT DEPENDS UPON WHAT YOU PUT INTO IT.
 TO THOSE WHO ARE ALWAYS SAYING THAT LIFE IS HARD, I WOULD LIKE TO ASK, "COMPARED TO WHAT?"

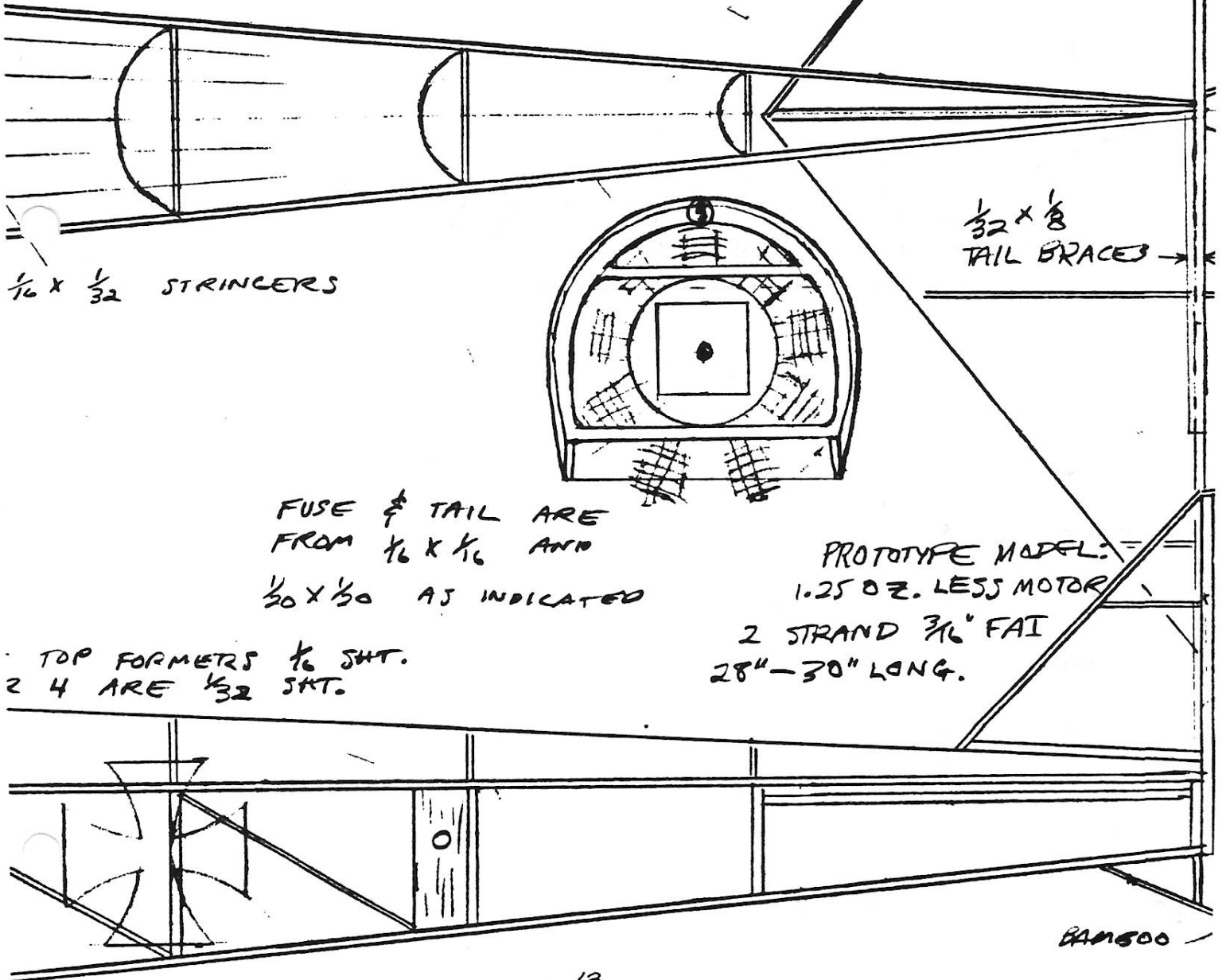
COLOR APPEARED TO BE
 CLEAR DOPED FABRIC,
 ALUM. COWL PANELS,
 & BLACK CROSSES.

SIEMENS - SCHUCKERT E-1

24" SPAN

Don Small '68

INSPIRED BY WALT MOONEY'S AUG. 67
 M.A.N. ARTICLE.



$\frac{1}{16} \times \frac{1}{32}$ STRINGERS

$\frac{1}{32} \times \frac{1}{8}$
 TAIL BRACES →

FUSE & TAIL ARE
 FROM $\frac{1}{16} \times \frac{1}{16}$ AND
 $\frac{1}{30} \times \frac{1}{30}$ AS INDICATED

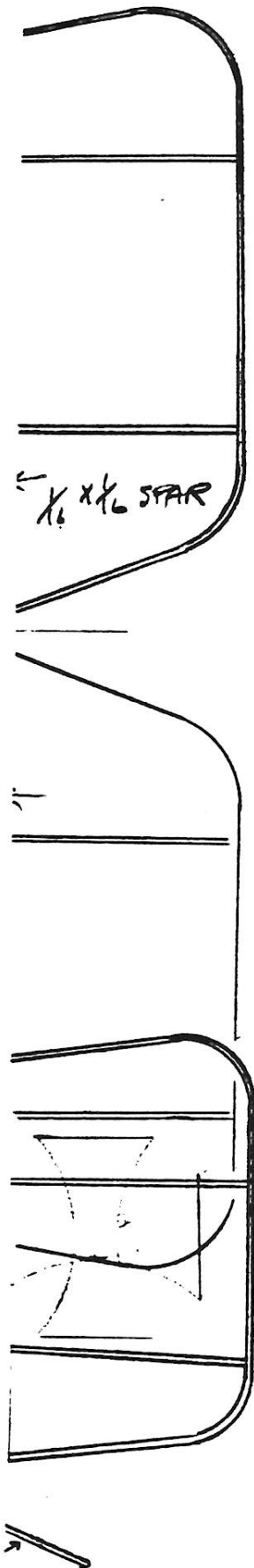
PROTOTYPE MODEL:

1.25 OZ. LESS MOTOR

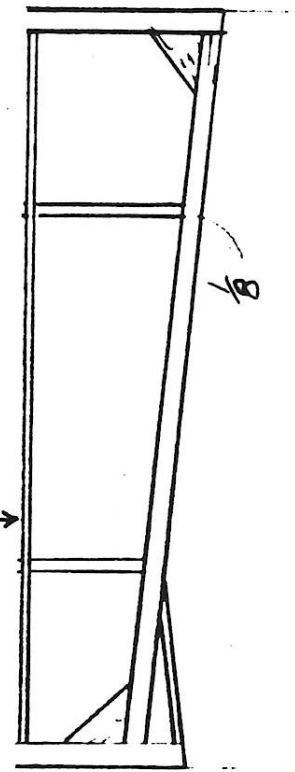
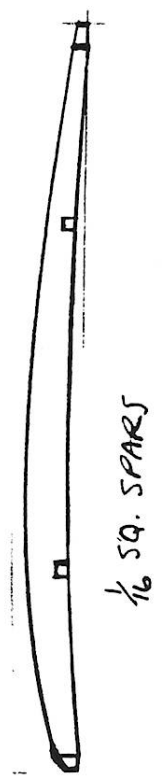
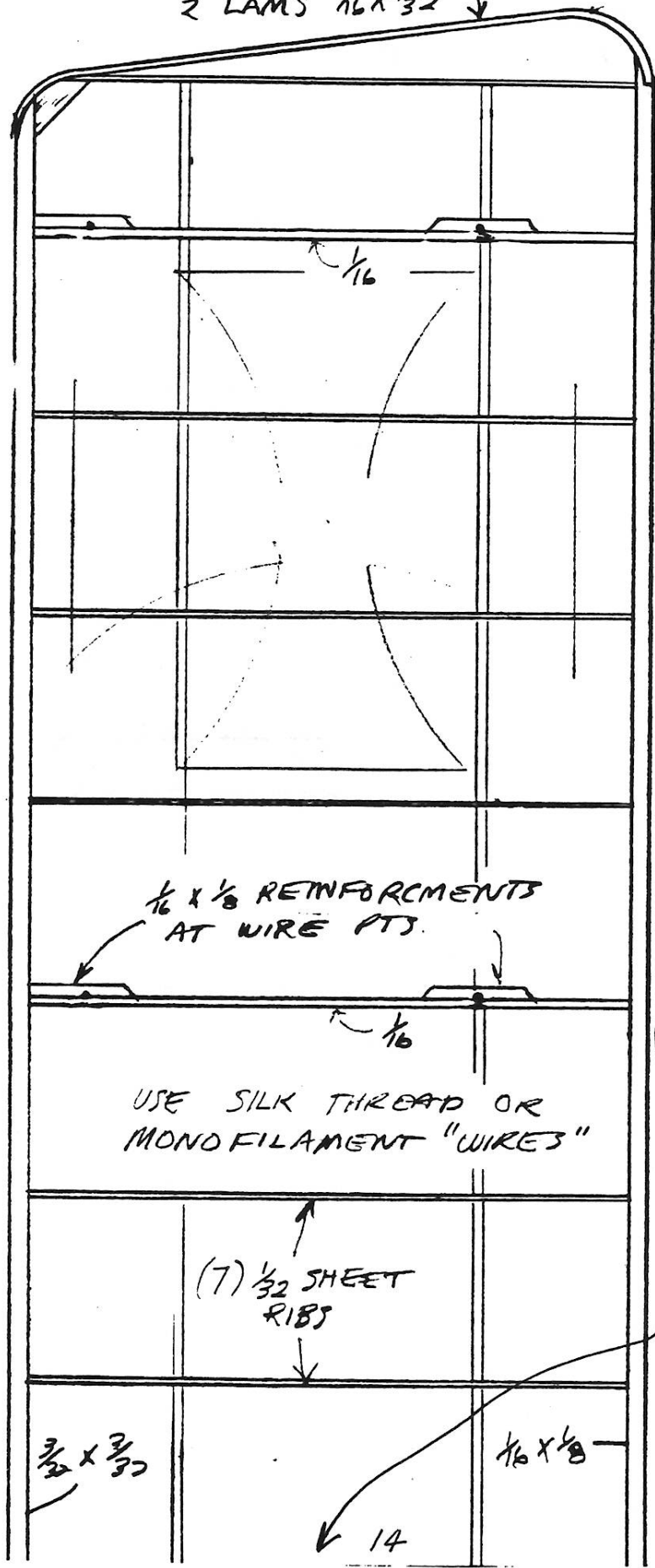
2 STRAND $\frac{3}{16}$ " FAL
 28" - 30" LONG.

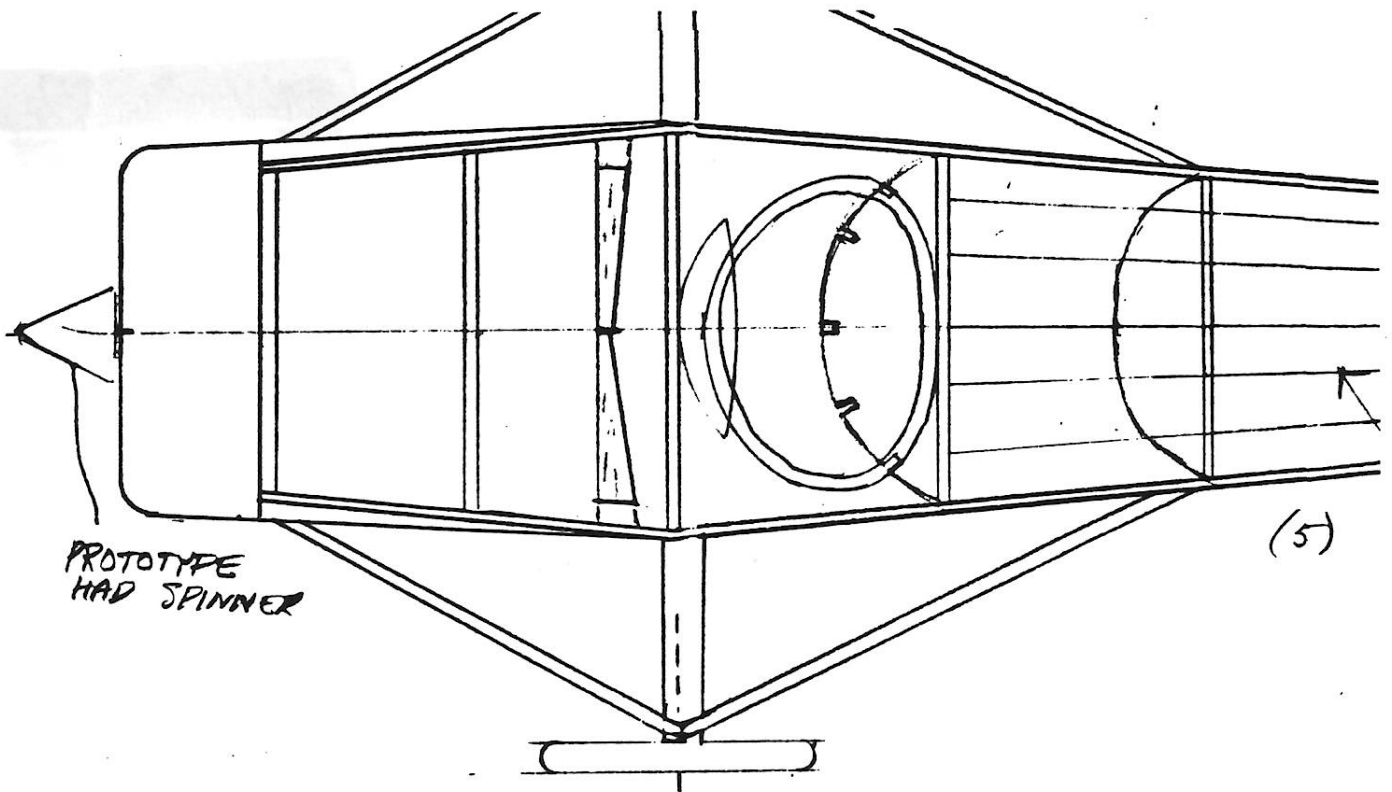
TOP FORMERS $\frac{1}{16}$ SHT.
 2 4 ARE $\frac{1}{32}$ SHT.

BAMBOO



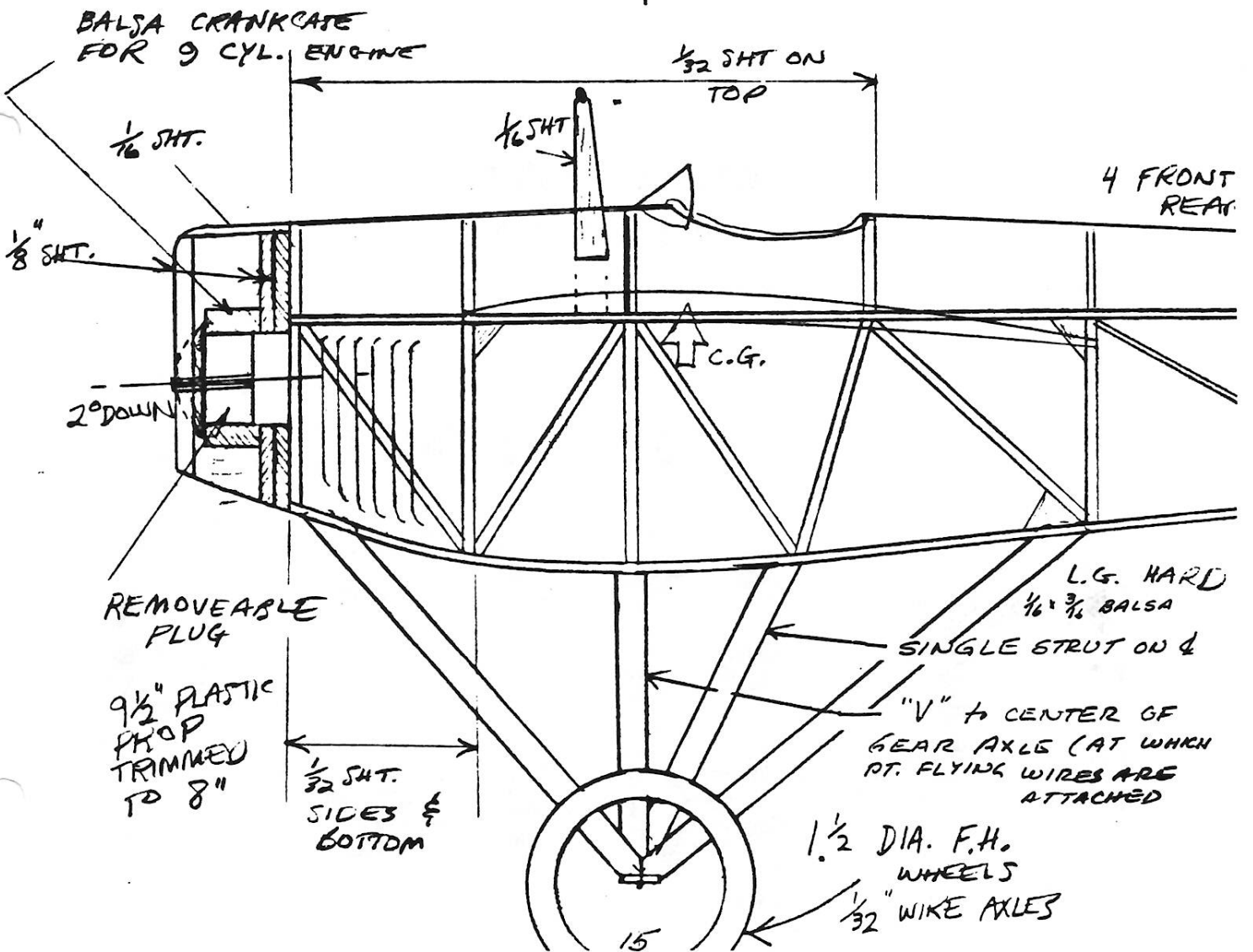
2 LAMS $\frac{1}{16} \times \frac{1}{32}$





PROTOTYPE HAD SPINNER

(5)



BALSA CRANKCASE FOR 9 CYL. ENGINE

$\frac{1}{32}$ SHT ON TOP

$\frac{1}{16}$ SHT.

$\frac{1}{16}$ SHT

4 FRONT REAR

$\frac{1}{8}$ SHT.

C.G.

2° DOWN

REMOVEABLE PLUG

9 1/2" PLASTIC PROP TRIMMED TO 8"

$\frac{1}{32}$ SHT. SIDES & BOTTOM

L.G. HARD $\frac{1}{16}$ 3/16 Balsa
SINGLE STRUT ON 4

"V" TO CENTER OF GEAR AXLE (AT WHICH PT. FLYING WIRES ARE ATTACHED)

1 1/2 DIA. F.H. WHEELS
 $\frac{1}{32}$ WIRE AXLES

15

MAX-FAX
8311 EXODUS DR.
GAITHERSBURG MD. 20760

MAX-FAX

JULY/AUG 1980

