

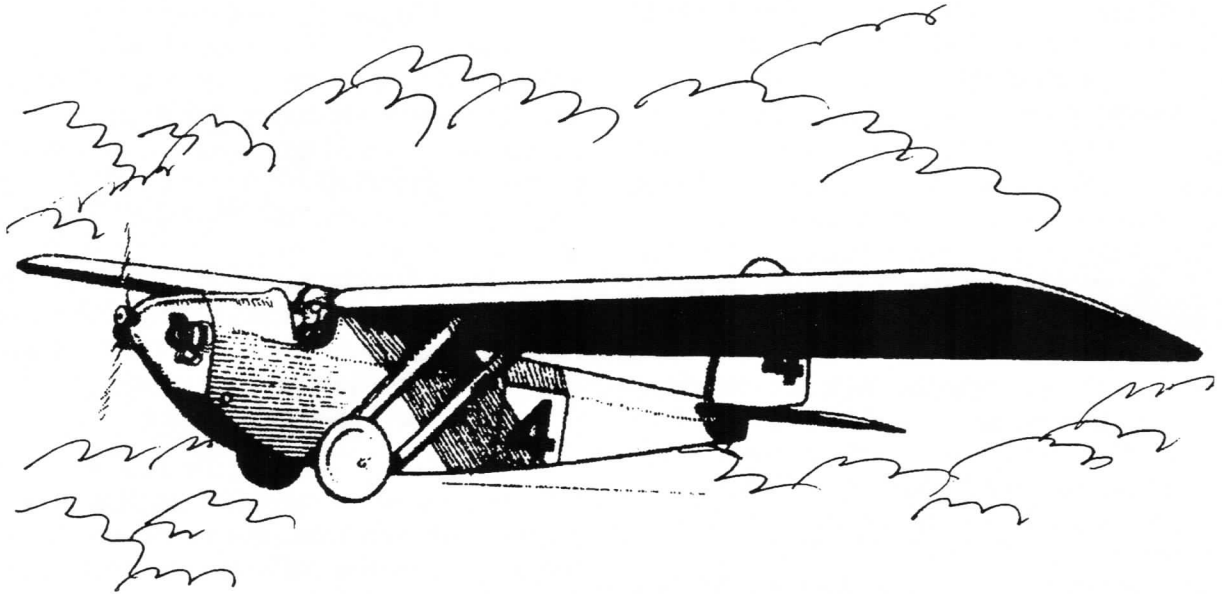
MAX FAX

Journal of the D. C. Maxcutters

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

Editors: Tom Schmitt & Don Srull

January—February 1994



Beardmore "Wee-Bee"

COMING ATTRACTIONS

JANUARY 9 MECA Region 11 collecto at Fairfax County Tysons-Pimmit Regional Library, 7584 Leesburg Pike, Falls Church, Virginia, 1 to 5 PM. For INFO call Marty Schindler (703) 938-2975.

JANUARY 15 Bull session at Pat Daily's home about 5 PM preceded by a 1 PM visit to the Air Museum at RIA. For additional INFO see map in this issue.

JANUARY 28 Friday evening indoor flying at Sherwood High School 7:30 to 9:30 PM. — Contest Flying — BOSTONIAN (BOGUS SCALE & NO SCALE) and 7 GR NO-CAL.

FEBRUARY 4 Friday evening indoor flying at Sherwood High School 7:30 to 9:30 PM. — Contest Flying — PRECISION CARRIER LANDING (ALL AIRCRAFT & NAVYSCALE AIRCRAFT).

FEBRUARY 11 Friday evening indoor flying at Sherwood High School 7:30 to 7:30 PM. — Contest Flying — PEANUT SCALE and OLD TIME KIT SCALE.

FEBRUARY 19 Bull session at Ray Rakow's Saturday 7PM, 9111 Crosby Road, Silver Spring, MD

MARCH ?? PAX RIVER INDOOR CONTEST - date uncertain - see announcement this issue.

MARCH 25 Friday evening indoor flying at Sherwood High School 7:30 to 9:30 PM. — Contest Flying — Any scale aircraft built from a newsletter plan.

1994 ALREADY?! We have more than a few nifty items this month to launch the first '94 issue of MAXFAX at full winds. Terry Pittman drops the other shoe with his second and final installment covering his and Tom Schmitt's recent trip to Prague. We also include a neat full-size plan by John Lewars of the attractive 1923 Lymne ultralight "Wee Bee". It's designed around the little HiLine MICRO-4 electric motor. But wait - we have a second full size plan, this one a handsome rendition of the Hawker "Hotspur" sent to us by one of our English Maxecuters - Lindsey Smith. Several other reports, some inside info on finishing and rubber motors, plus the usual terrific photo pages by Tom Schmitt round out this Happy New Year's offering.

NEWS FLASH! At the November meeting the D.C. MAXECUTERS elected new 1994 club officers by acclamation. Terry Pittman will be the new chief executive replacing the incumbent President Jerry Paisley. Jerry leaves with a rousing 'well done!' and promises to spend more of his newly acquired leisure time building. Bert Phillips steps into Terry's shoes as Secretary and Frank Rowsome continues as Treasurer (with a little arm-twisting). Last but not least, our new Field Marshal is good old 'Downwind' Stew Meyers. Let's get behind this new slate; ask not what the MAXECUTERS can do for you, but rather what you out there (specially the locals) can do for the MAXECUTERS!

SCHTICK UND TISSUE ÜBER ALLES - What many attempt to conquer in this hobby of ours with R/C and roaring power, Bill Hannan smites with the mighty pen and graphic presentation. Bill has done it again with his latest tome "STICK & TISSUE" Volume Number Three. It is truly an international "Inspiration for Model Builders". Bill humbly refers to himself as the *compiler*, but the knowing reader of his many publications can see it's *all* Bill, sharing more of his dreams concerning the art form of "stick and tissue models". In this volume there are many great photographs, plans and articles, but one of the aircraft covered especially strikes this writer's fancy. The GEE BEE ASCENDER is a whimsical favorite and is the subject of the cover art, an article, three view and several photographs; great for CO2 or Electric. This new volume has to be seen, read and used to be thoroughly enjoyed. Even the devout R/C ers will likely enjoy this book and (heaven forbid) enlarge one or two designs for fly-by wire(less). The book is available from HANNAN'S RUNWAY, Box 210, Magalia, California 95954 for \$9.95 plus \$2.50 shipping. If you are in hurry, and you should be, call Joan or Bill at (916) 873-6421 and charge it to your VISA OR MASTERCARD. Be sure to ask for their catalog.

Tom's and Terry's Excellent Adventure, Part 2

Or, Prague on Ten Beers a Day

by Terry Pittman

The thrilling story of two Maxecuters' adventures in Prague continues with recollections and excerpts from my diary of the trip:

*Sunday night, June 20, 1993
Prague, Czech Republic*

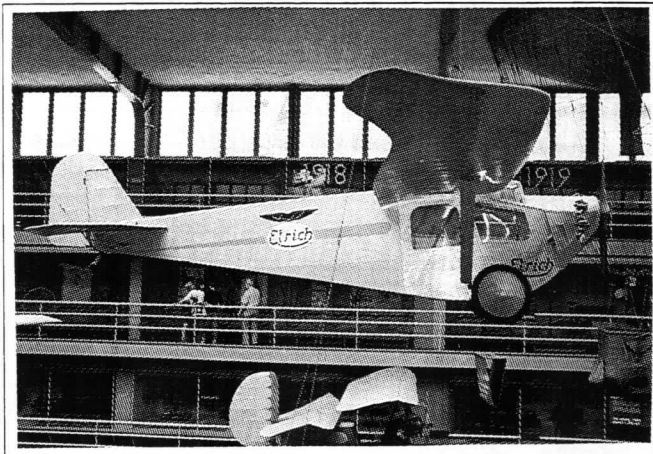
Stan Dudek, our host, met us when we arrived at Ruzyn airport, located on the outskirts of Prague. Stan is an aviation historian, publisher, PR man, and entrepreneur. I had corresponded with Stan after reading his ad for DD Air Agency in WWI Aero and Skyways magazines, and he invited Tom Schmitt and me to come to Prague.

At Stan's home we were greeted by his lovely wife Dagmar and daughters Daniela, Marketa, and Kamila. Hors d'ouvers were served and we were treated to vodka shots (with appropriate toasts), fine Pilsner beer, and an excellent, hearty meal.

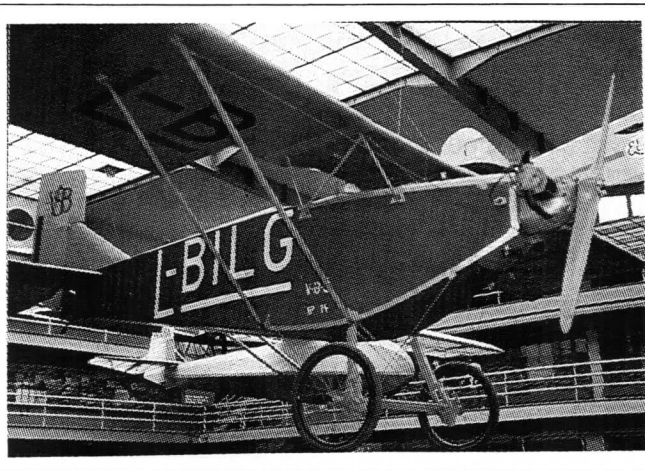
Monday morning, June 21, 1993

After breakfast we picked-up Stan and by mid-morning we had made the rounds of the hobby shops, book stores, and aviation shops. Stan was delivering the aviation newsletter he publishes ("Letecký Listy") to his customers. At each shop he introduced us to the owner and we were treated to a great selection of beautifully printed aviation books, modelling supplies, plastic kits, motors and rubber props. With a very favorable conversion rate, everything was inexpensive. We felt like kids in a candy store.

It was interesting to see how an entrepreneur like Stan has managed to create a growing business in an environment where so many things work



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against you. Here in the States we take it for granted that simple things like phone service are readily available, the mail is delivered consistently, and the other products and services we need in order to do business are consistently available. The Czech Republic is the economic star of eastern Europe, but it is still difficult to operate a business there.

From a side-street we followed Stan through a doorway into the patio of a restaurant with tables shaded by old buildings and trees. Stan asked if we would like a beer. It was only about 10:30am but the patio was hopping and, as they say: "when in Rome..." We took a table and ordered a round of Pilsner draft beers. I can't remember what we talked about but I will never forget that lovely shady patio and the fine taste of locally-brewed Pilsner beer. From this point on we looked for many opportunities each day to find an attractive spot for a beer or espresso. Fortunately, where ever you are in Prague there is a cafe or pub just around the corner.

Tuesday, June 22

"Sitting in a lovely outdoor cafe on a hill above downtown Prague: the Velkopopovick Kozel, circa 1874 — a "new" building in Prague. The weather is beautiful — 70 degrees, sunshine, puffy clouds, and

③



a light breeze. The cafe is just across the street from the Národní Technické Muzeum (National Technical Museum) where we will meet Stan at 2pm.

Tom and I had a delicious lunch: Svíčková (sweech - ko - va) (this turned out to be our favorite dish: thin slices of roast beef served with pieces of sweet bread covered with light gravy) and Pilsner beer. For desert, ice cream with raspberries, chocolate flakes, chocolate sauce, and whipped cream."

The museum was outstanding. It is a large open building with numerous aircraft suspended, and on the floor. There are also a number of exotic cars and locomotives. Walkways encircle the building allowing excellent views on many levels. All of the accompanying photos, except one, were taken in this museum. For the photos, I selected some of the more unusual, and rare aircraft. Here's a rundown :

① Etrich Taube. 1928. Salmson motor. "LB-ILG". Silver overall. Fuselage trim: light blue upper stripe, yellow lower stripe. Wing and tail surfaces: yellow leading edge trim. Yellow trimmed wheel covers. black and white markings.

② Kuřkadlo - constructed by V.B., 1925. Renault Clerget motor. Fuselage: medium blue with silver trim. Silver wing. Markings: MLL logo on wing and VSB logo on fin - med. blue, Registration: wing - black, fuselage - white with black borders.

③ Avia BH-10. 1924. Walter N2-60. "OK-AVO". Medium blue overall with white fuselage stripe. Black registration.

④ Anatra Anasali. 1917. Salmson motor. "11120". Olive drab overall. Forest green motor housing.

⑤ Sokol. "OK-AHN". Silver overall, black nose top. Blue stripe on side of fuselage. Map of Europe and Africa in blue on left side of nose. Black registration.

⑥ Zlin Z-XIII. 1937. "OK-TBZ" Walter Major 4 motor. Silver overall. Red registration with white outline. Red spinner, red trim on wheel pants' front.

⑦ Stan Dudek and Tom Schmitt at the cafe in Old Town Square. Note the (empty) Pilsner beer bottles.

While in Prague we also visited the Museum of Air and Space at Prague-Kbely Airfield. There were scores of beautiful and exotic planes here, including numerous Avia models (a BH-10, BH-11, and the brilliantly painted BA-122 bi-plane), an Aero A-18 fighter and also the short-wing race version, and the Aero A-10 modelled by Hurst Bowers in the last issue of MAX FAX. There was also a display case

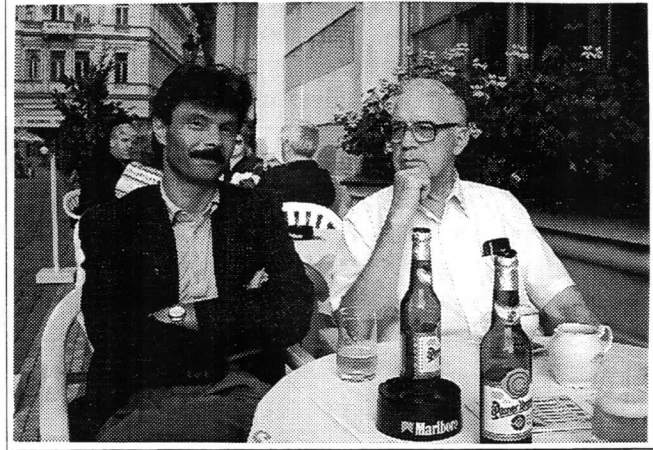
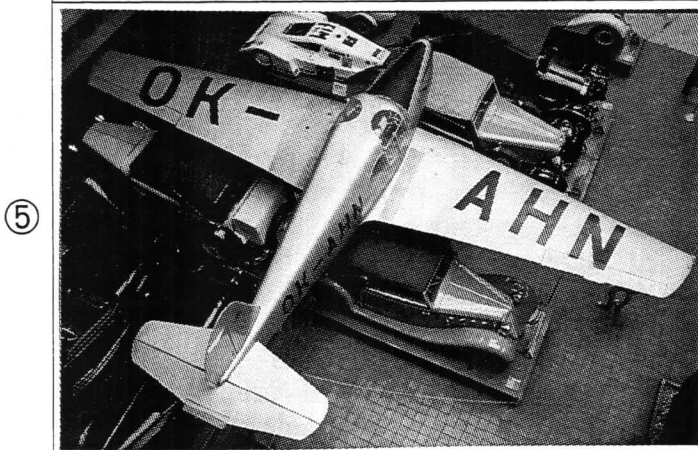
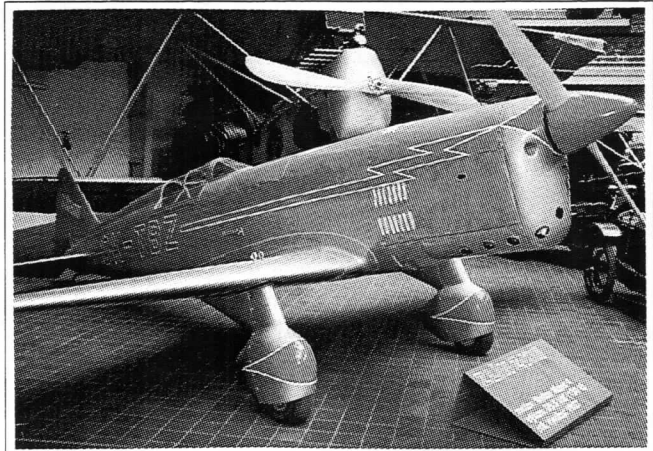
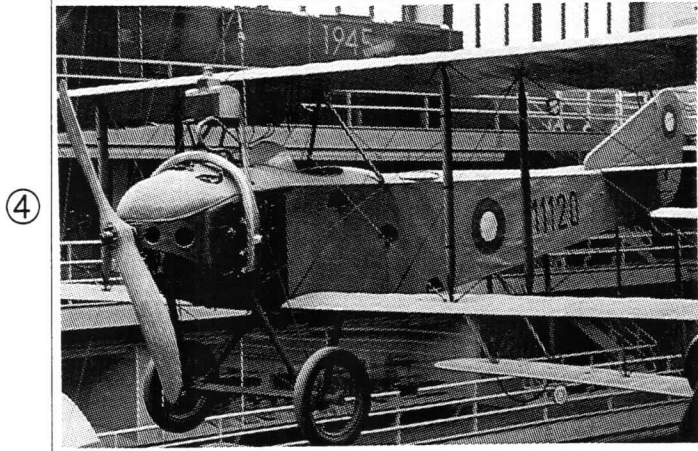
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housing several fine examples of free-flight scale for which the Czechs are well known. This museum reminded me of the Paul Garber facility of the Smithsonian Air and Space Museum with its hangars and tightly packed aircraft.

Looking back now I vividly recall the beautiful buildings of Prague and the sense of historical significance evident so often in the cobblestone streets and grand squares, the gracious and warm treatment

by our hosts, and the numerous hobby shops and book shops. One final image indelibly etched in my memory occurred our last evening there. We met Stan at an outdoor cafe on Old Town Square. The striking buildings and clocktower which surround this historic square provided a dramatic backdrop for our goodbye. We sat in the long, golden rays of the setting sun, sipped the great local brew, and talked of future aviation adventures.



Kudzu Revisited

This past October many of us enjoyed another fabulous two days of flying in North Carolina. It is really difficult to pick the better of the two days and we will call it a draw as there was enough drama, excitement and just plain ole fun on both days to satisfy any diehard FAC flyer. The first day (evening) found us reveling in some seaplane flying at Jerry Paisley's swimming hole. Actually it was the great lake on which Dave and Marie Rees have their home. The weather was picture perfect resulting in many great flights with several spectacular takeoffs and landings. Bert Phillips won the best seaplane flight prize; his semi-scale Bostonian equipped with

a float design by Chuck Wojtkiewicz made a magnificent scale-like takeoff, cruised around over the lake and then touched down on the water just as magnificently. It is difficult to remember all the flights but Don Srull's takeoff with his Vagabond was also a standout. Unfortunately it drifted away from the lake and landed about 40 feet up in a pine tree. Dave also tried R/C (yes, Radio Control) seaplane races around some tethered balloons out in the lake. I believe Don took-off and made it around the course at least once. Dave and Tom Schmitt tried but failed after hand launching their aircraft. Dave had a jammed rudder control and Tom's enlarged Buzzer turned out to be a 'lead sled'. On one flight Tom's did water taxi nicely after a getting around one balloon and then power gliding to a landing. The next day at

Raeford was another fabulous day of flying, this time until the sunset. Tom Odum is the man-on-site that makes sure we have continued use of the terrific flying site. Once again there were too many great flights to begin describing them all. Just ask some of the flyers who were there including Walt Eggert who came down from Philly; also John and Mark Houck who flew down from Pennsylvania with Mark getting in some cross-country time. Oscar Smith traveled from Georgia and Ollie Benton from Tennessee. A bunch of us journeyed from the D.C. and Richmond area. The South Carolina contingent was there also. We were happy to see our old friend Bob Wedel attend. There was a light breeze and some boomer thermals resulting in several lost aircraft, including Tom Schmitt's terrific flying COM-MANDER which went O.O.S after about 5 minutes. Don put up his electric ducted-fan MIG-15 for a spectacular two minute plus flight. No one wanted to leave but with the sun quickly sinking we left to enjoy pizza and beer before heading for home. Thanks again to Dave and Marie Rees for their hospitality at the Friday evening splash down and for providing the lunch on Saturday; and another big thank you to Tom Odum for Raeford and arranging the pizza get together. Next year can't come soon enough!

The Hawker 'HOTSPUR' Embryo Endurance

FULL SIZE PLAN

by LINDSEY SMITH

My first Embryo Endurance model was Tom Nallen's delightful 'Skiptown Cadet', which flew "right off the board", as they say. I was so surprised that I resolved to design my own model to the Embryo rules. My inspiration for this model is an obscure 1933 Hawker project to replace the Fury biplane, which was never actually built, but which, if it had been, was allocated the name Hotspur; later also used for the turret gun version of the Henley light bomber, and of course the well known military glider. The original Hawker project was designed round the Rolls Royce Goshawk evaporation cooled engine, also used by the Supermarine F730 project, which was built and was a disaster. Fortunately for our own fortunes during the Battle of Britain, Sidney Camm's team ditched the idea and went on to design the Hurricane round Rolls Royce's new engine, and the rest is history, but we could have been stuck with a two gun fixed undercart fighter in service at the out

break of war. I have fiddled the moments and wing areas to more nearly approximate the Skiptown Cadet, but my 'Scale' proclivities came to the fore and the model is more a semi-scale model than a competitive Embryo. However, if you omit the side stringers and keep it light, it might not do too badly. Sure looks pretty don't it? Incidentally, Bob Jones, who has very kindly tarted up my original plan, is an ex-Maxecuter who used to fly into Washington regularly as an aircrew on the RAF Shuttle. He is now retired and specializes in antique and obscure Wakefields, of which he markets a great range of plans.

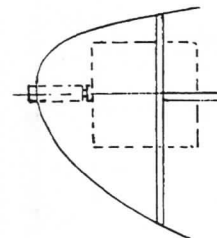
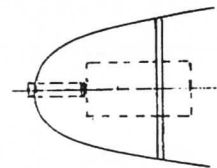
Beardmore "Wee Bee"

FULL SIZE PLAN

by TOM SCHMITT

John Lewars kindly sent several model plans of Daily Mail Lympne trial aircraft for use in MAX-FAX. All of them are designed for the direct drive Hi Line electric motor with wing areas of about 70 square inches. We have selected the 'Wee Bee' to include in this issue. The 'Wee Bee' is one of the more attractive Lympne aircraft primarily because of it's blue and aluminum color scheme. This is documented in the May 1985 issue of *Aeroplane Monthly* magazine, which was also the source of the 3-view we have included. John worked his plans for the original re-wound Hi Line motor, but the model is readily adaptable to the latest version of the Hi Line Micro-4 motor, which has an aluminum extension shaft. The new motor allows the builder to more faithfully reproduce the nose contours of most scale aircraft, including the 'Wee Bee'.

The following sketches show how the new Micro-4 was installed in the model shown in the photo.



The motor was installed vertically instead of horizontally as shown on the full size plans. Also we lowered the thrust line about 1/8 inch to completely conceal the motor in the

revised, more authentic cowl contours.

In order to provide easy access to the battery for C.G. adjustment a lightweight balsa tray was attached at the rear of the cowl. It can be slid out with the motor assembly. The tray extends to station

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continued from page 5.

number 6. The switch and charging jack were installed in the bottom of the fuselage with enough slack wire to allow removal of the nose and battery tray for adjustments of battery location and thrust line during initial test flying. Rudder and elevator surfaces were hinged with stiff iron wire for flight adjustments. The fuselage was constructed of 1/32 light balsa sheet instead of built up as John's plans illustrate. This is a little heavier but easier to build. The model is covered completely with Plyspan (Japanese tissue), water shrunk, clear-doped (3 thin coats) and sprayed with Sig colored dope. The fuselage is dark blue and the wing plus tail surfaces are aluminum. Using a trick from Don by adding a little gray to the aluminum dope resulted in a more realistic finish. The all-up weight of the model is about 48 grams and the C.G. is about on the front spar. The battery location (2x50mah) is behind the wing just in front of station number 6. The model requires both down and right thrust; about 3 degrees each. Flight testing is not complete at this time so be prepared to adjust thrust; a good idea for any new model. The model also required more decalage; which made the moveable elevator a good idea in this case. About 5 degrees up elevator has resulted in good test flights thus far. If the model is constructed more lightly, for example by using a built-up vs a sheet balsa fuselage, less decalage will probably be required but the lighter model may be a little more vulnerable. For you diehard FACers out there the model should be competitive in the POWER SCALE event with a 80 mah battery at a slight increase in weight. This battery should give you a solid two minute flight time in dead air. Good luck with your 'Wee Bee'.

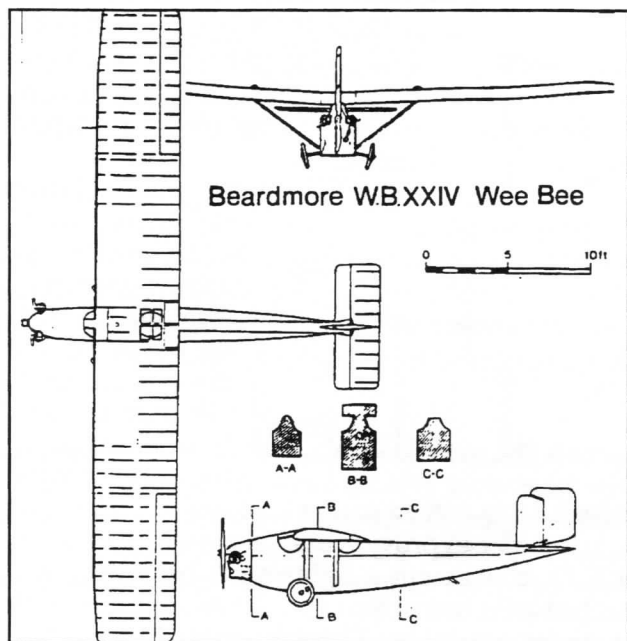


PHOTO PAGE

1. One of our two full-size plans for this issue of MAX-FAX is the Beardmore 'Wee Bee'; Hi Line MICRO-4 electric power.

2. Here is John Lewars, the 'Wee Bee' designer, with another of his electric Lymne designs; this time the English Electric 'WREN'. We hope to have the WREN plan in a future MAX-FAX.

3. Our second full-size plan this issue is by our friend Lindsey Smith across the Atlantic in England. It is a great plan of an obscure Hawker design study, the Hotspur.

4. Another Hawker, this time a beautiful winning PEANUT version of the Fury by Cris Starleaf seen at the Muncie FAC contest.

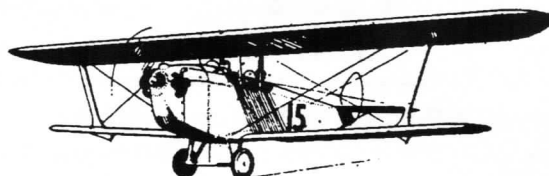
5. Our roving reporter Terry Pittman takes time out to savor the liquid delights of Prague while composing his memoirs.

6. Don Srull's high flying electric powered ducted fan model of a MIG-15. You have to see this job go!

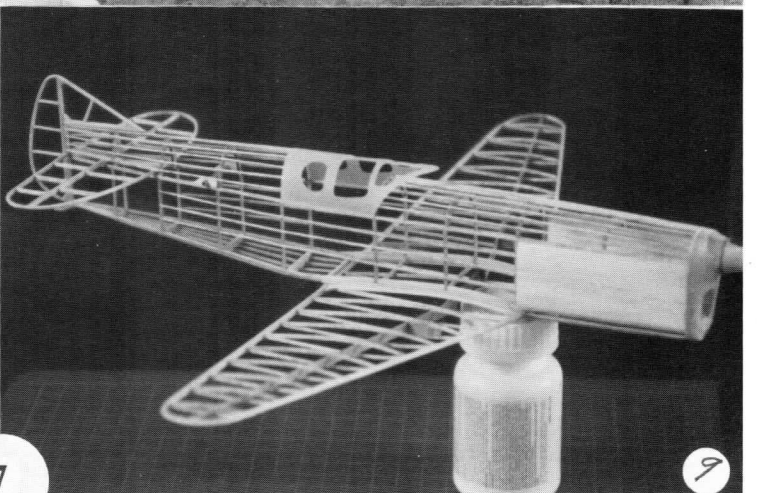
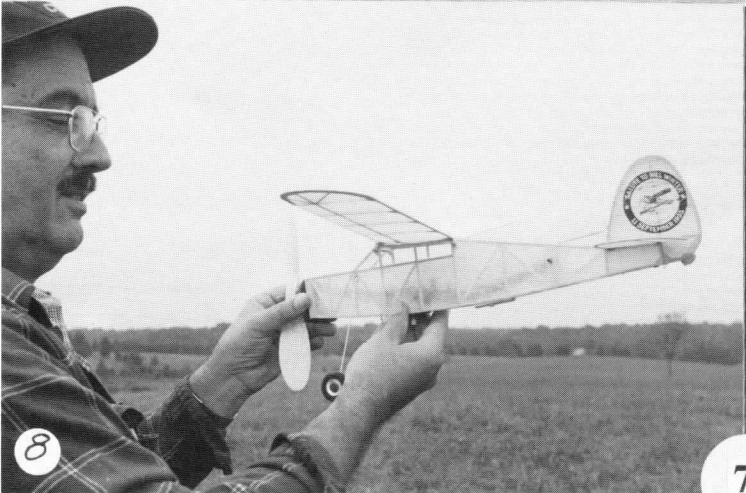
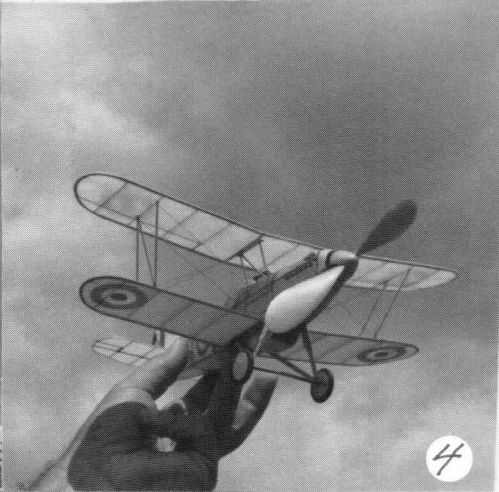
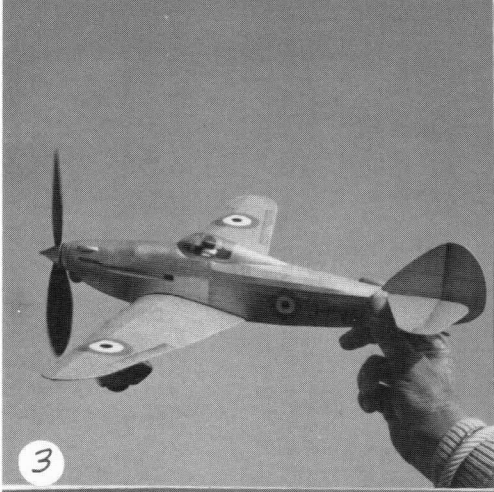
7. The real 'McCoy', a MIG-15 in Czech markings seen at the Kleby Museum in the outskirts of Prague.

8. Hal Howard holds up his Commander with his Bill Winter 'Salute' on the tail. See the last issue of MAX-FAX to obtain a T-Shirt with this neat logo.

9. One of our members in far off Singapore, David Wagner, sent this great photo of his PEANUT Haines Mystery Ship racer.



SOMETHING BORROWED, ... The article on FAI Tan II rubber on page 20 was taken from the fine Canadian newsletter "SAM 86 SPEAKS", edited by Dan O'Grady. It's an informative and entertaining newsletter (a sample of their *history of the world as interpreted by students*: "The government of England was a limited mockery; Joan of Arc was burnt to a steak and cannonized by Bernard Shaw; Magna Carta provided that no man should be hanged twice for the same offense.") To subscribe, send \$12.00 (US) to Dan O'Grady, 50 Largo Cresc., Nepean, Ontario, Canada K2G3C7.



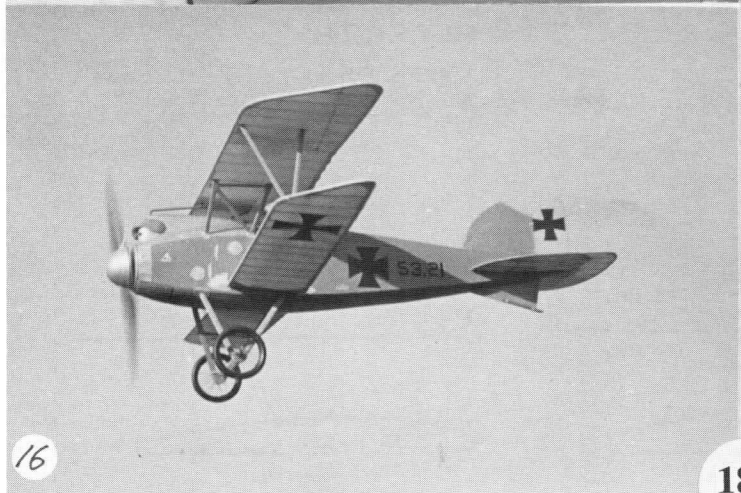
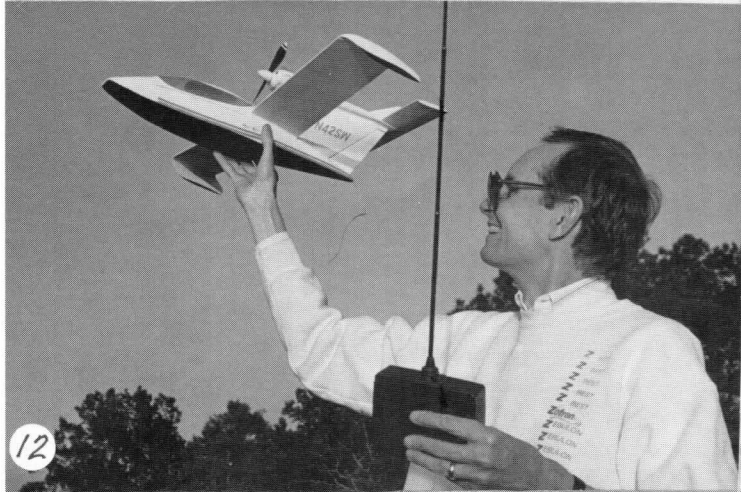
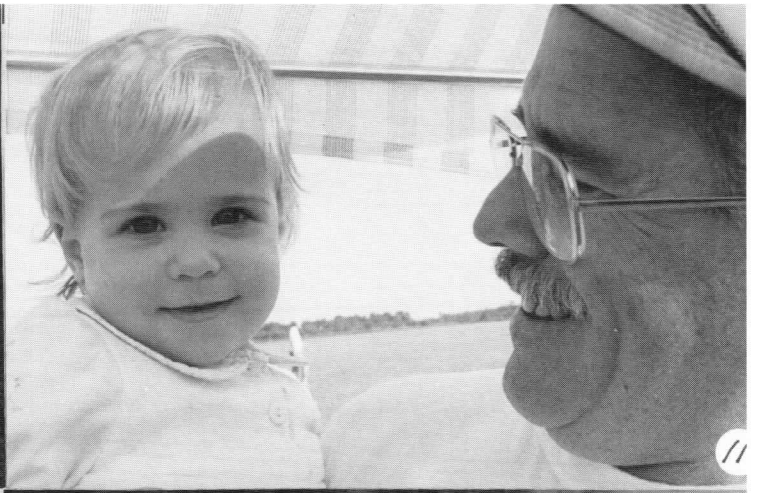


PHOTO PAGE

10. Paul Boyanowski's beautiful Vega; read the article in this issue to discover his finishing techniques.

11. One of our newest MAXECUTERS, Kathleen Driscoll came to Raeford to enjoy the fun. Dad hopes to have her out chasing for him next summer; then we may see more of Dan.

12. Dave Rees ready to launch his Hi Line powered flying boat for a trip around the balloons.

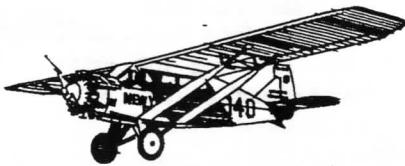
13. Don Srull's Vagabond starts a great take-off run before heading for its ignominious landing in a tall pine tree.

14. Tom Savage and his great JUMBO rendition of the Holste Broussard.

15. Scott Paisley came all the way from his new location in Boulder, Colorado to stooze for Frank Rowsome, winding his Caudron Thompson racer.

16. This is one terrific model aircraft! Pat Daily converted his Albatros to CO2 power and it is a very realistic flyer.

17. Chuck Wojtkiewicz ready to launch his Taylorcraft. All of Chuck's models are beautifully finished and fly just as good.



Estimating Rubber Cross-Section Requirements

by Don Srull

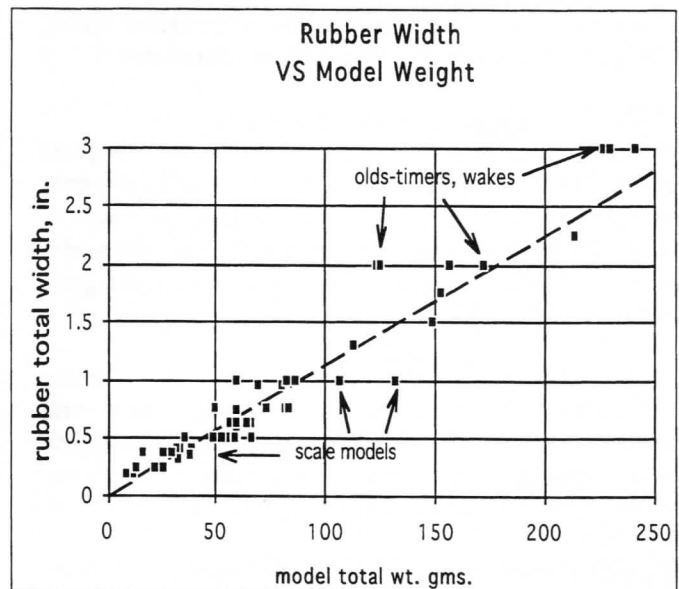
One of the first questions to be answered before test flying that new rubber scale or sport job is: "How many strands should the rubber motor have?" Many experienced modelers have developed a 'feel', a sixth sense, for how much cross-section will likely be needed for any given model. For relative newcomers to our sport, however, a reasonable starting point may not be nearly that obvious. The "optimum" rubber cross-section, of course, will depend on many complicated variables, some predictable and others quite slippery, and is best determined by test flying. Nevertheless, a reasonable first guess could save much unnecessary effort and wasted trial and error; and if that first guess could be calculated simply and quickly it would be of use to the newcomer.

I have kept records of most of my models over the years, and looked to see if there was any pattern of rubber cross-section I had been using. For about fifty of my models (mostly scale and sport-types, plus a few old timers) I plotted *total model weight VS total rubber width*. VOILA! A surprisingly consistent and simple relationship appeared:

$$\text{MOTOR WIDTH IN INCHES} = \frac{\text{TOTAL MODEL WEIGHT IN GRAMS}}{90}$$

Motor width as used above is equivalent to motor cross-section (for uniform rubber thickness), and it is much easier to calculate than actual cross-section. For example, a 4 strand motor of 1/8" rubber has a width of $4 \times 1/8 = 1/2$ ".

To use the above relationship, first estimate the total weight of your newly finished model by weighing the airframe (in grams) and adding about 25% more for the rubber motor. Divide this number by 90, to get the rubber motor width in inches. Motors of this size will provide enough torque for scale-like flight, rather than hot contest model performance. For scorching fast climbs, increase the width by 20% or so. EXAMPLE: the airframe of your model weighs 75 grams - plus 25% (19 grams) for a motor gives a 94 gram estimated total weight. Calculate a $94/90 = 1.04$ " motor width. In this case a 4 strand 1/4" rubber motor would do the trick. Easy, eh? Remember though, it's only a starting point. Keep test flying and adjusting motor width, length, and prop size to edge closer to that ethereal "perfect flyer".



Here is a very interesting piece lifted from the S.A.M. RUBBER MOTORS newsletter by famous Canadian rubber modeler Don Reid. Don talks about his experience with the new FAI Tan II rubber that appeared last year. This factual info from an experienced modeler is welcome input. Obviously Tan II has a really high energy content, but it's certainly different, and it may have some disadvantages. But like they say, it's all we got, so we better get to know one another.

S.A.M. RUBBER MOTORS, TAN II

by Don Reid

A new rubber called Tan II is available from FAI Model Supply. The first batch appeared in May '93 and was used successfully at the Johnson City Indoor Champs in June. I haven't seen it but it's described as light tan and slightly translucent with energy in the 3800 to 4000 ft.lb per lb. of rubber. I bought 11 lbs of the second batch in July. It is a darker greyish tan and has received some bad reports, particularly with respect to nicking at knots and edge abrasion. I called Ed Dolby of FAI in September to inquire about this, to hear what the most recent batch was like and possibly to order some. Ed told me that all of the Tan II has the same high energy and a high stretch ratio of over 10:1 as compared to over 8:1 for the older Tan. He said that there had been some problems with nicking at knots, but this was caused by stretching the rubber 10½ times before testing. When this was reduced to 8½ times no further trouble was encountered.

I was almost out of the old Tan and had to use some of the Tan II at the '93 SAM Champs, so a little testing of my own was in order. I made up three one-half length Gollywock motors (16 strands and 20 grams) and corded them backwards. All were lubed with Son-of-a-Gun and broken in by winding to a torque of 35 in.oz. This gave about 475 turns, or 950 turns for the full length motor. I wound one motor to failure with the following results:

Turns	Torque
577	54
600 - failure	At least 60

its long length, some tissue tears and the occasional upright knocked out. 28 strands of Tan II 37½" long proved to be an excellent substitute. Wound to T80 the performance was at least as good as old Tan and whipping was eliminated.

Lanzo 300 sq.in. Fuselage

Previously flown with 32 strands of old Tan 44" long and wound to T100. This gave a motor run of about 70 seconds. I used 32 strands of Tan II 40" long at the Champs wound to T95-100. The prop run was longer than before and the model flew very well with a fast steep climb on the burst and a good cruise.

General

Tan II is substantially different from old Tan. On a strand for strand basis it permits about 20-25% more turns with somewhat less torque. At this stage, for old-timers, it comes with a significant shortcoming and that is extreme "tenderness", which results in many nicks and a very short motor life.

My previous practice with old Tan was to wind a new motor to 60% failure torque for break-in and then to use 80% failure torque for competition flights. I usually got three 80% winds before breaking a strand and the rest of the motor was mostly

The motor failed at the rear peg. It had three knots originally and all were OK but there were numerous nicks elsewhere. The other two were wound to a torque of 45 in.oz. and about 550 turns (1100 for the full length motors) and a single strand broke on the second wind. I did some preliminary flight testing in Ottawa with a 16 strand Gollywock motor. I wound it to T35, then T42 and blew the motor on the third wind at about T38. En route to Taft for the '93 SAM Champs stopped in Las Vegas where Larry Jenno was holding 10 lb of batch 3 of Tan II for me. As promised, it was a very light tan with a high stretch ratio. I had a few days at Taft to fine tune my models and to try the new Tan II. There was very little difference between the greyish and the light tan versions.

Gollywock

These models fly well using 16 strands of old Tan (40 grams) and a torque of 45 in.oz. (T45). 20 strands of Tan II (40 grams) wound to T45 shortens the motor run by about 10 seconds. In order to use Tan II effectively the models should be re-trimmed for T50-55. I used old Tan in the competition.

Double Feature

The models are trimmed for a torque of 60 in.oz. using 20 strands of old Tan 36" long (63 grams). After some experimenting with 24 strands of Tan II 30" long I decided on 20 strands of Tan II 36" long wound to T50. To use 24 strands of Tan II effectively the models should be re-trimmed to at least 65 in.oz.

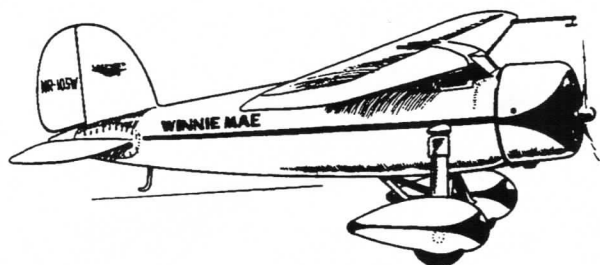
Smith '41 Mulvihill

The models were flown previously using 24 strands of old Tan 44" long (90 grams). Results were very good at T80, the only problem being considerable whipping of the motor due to intact. Using the same approach with Tan II almost always resulted in broken strands on the first full wind and the motors were often almost totally destroyed. I lubed with Son-of-a-Gun, Sil-Glyde, and a combination of both with no change in results. One top-flight flyer was using various lubes including FAI "Slick" and reported similar problems. Jim Quinn (former USA Wakefield team member) told me some Wakefield flyers were foregoing break-in and simply wound the new motor to full torque.

An approach I intend to test is to wind to the assumed safe failure torque (not 80%) and count on only one wind per motor. I'll try this with and without a break-in wind. This would give similar values to 80% torque for old Tan, i.e.:

16 strands (1/8")	45 in.oz.
20 "	60 "
24 "	80 "
28 "	100 "
32 "	120 "

Possibly extended storage will have a beneficial effect, and I have almost 20 lbs of Tan II in my wine cellar beside the Chateau Petrus.



FINISHES

BY PAUL BOYANOWSKI

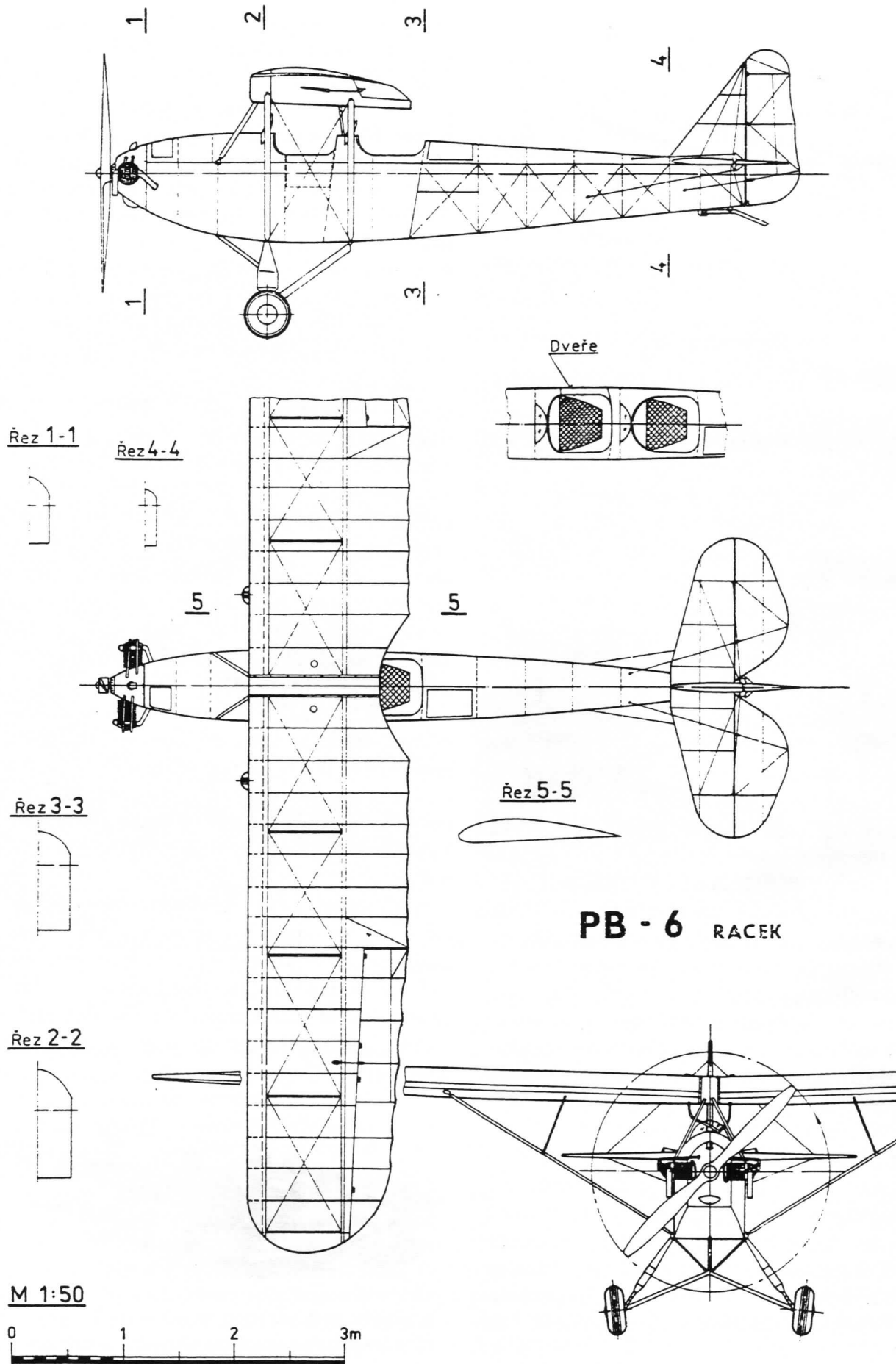
The following article was extracted from a letter to Russ Sandusky by Paul. This was in response to Russ's request for info concerning the finishing of Paul's Vega which many of us have admired both on the Judges table and in the air. We quote in part from Paul's letter -

"I'll try as best I can to explain how I finished the model. The paint used was Designers Gouache by Windsor & Newton. The color in this case was Primary White. It is available in art stores in a variety of colors. It is a friendly paint without any harmful fumes. No health labeling is required on the product. The Gouache is similar to Acrylics in that it comes as a paste in a tube. However it mixes easier with water, and is easier to clean out of the airbrush. To give the Gouache some permanence after application, I spray a light coat of Krylon Clear #1301 Acrylic spray out of the can on it. For a dull finish Krylon #1311 Matte Finish works nice. On the Vega I airbrushed the paint on raw Japanese white tissue after the tissue had been applied to the model and water shrunk. Apply several very light coats of paint. If too much paint is applied water droplets will begin to appear. At this point stop painting and allow your job to dry. Painting patiently and methodically produces the best results. The actual amount of paint required to give the model some color is very little. When painting is complete apply an even coat of the Crystal Clear. It dries fast and is easy to use. Just a little will give the permanence required. As previously mentioned I simply use tap water to thin the paint. I mix to a fairly thin consistency. Experiment to meet your own needs. The

black trim is cut from tissue. I shrunk some white tissue on a frame and lightly painted it with black enamel from a spray can. This produced a nice sharp contrast when the markings were applied to the model. Most of the time I simply use black tissue. The letters were applied using 3M Spray Mount Artist's Adhesive #6065. The spray mount is handy for a number of jobs. It's consistency can be controlled by how it is applied, and allowed to set-up. So if you want something to really stick or if you want low tack you have the option. 3M two sided rubber cement tape, also called mounting tape, was used to apply the trim stripes. (Sorry this is all the information on the tape name, although Pres Bruning and Ralph Kuenz call it "snot tape"!). Apply the tissue to the sticky side of the tape. I use a plate of glass to slice the tape on. Virtually any width of trim can be made. The back of the trim tape is simply peeled back leaving you with a light coat of rubber cement on the tissue. One becomes quite comfortable with this material the more it is used. (Works great for canopies). I purchase the 1" width rolls. A #11 Xacto blade and metal straight edge are used to slice the strips. Tape your work down over a piece of paper which is taped flat over the glass plate. Although the Vega was painted after the model was covered, equal results can be obtained by painting and sealing the tissue on a frame. Make several sheets using the materials mentioned. The tissue can be water shrunk after application to the model. I used thinned white glue to apply the tissue to the model."

Many of us who have seen Paul's Vega and other of his creations including the fabulous Sunderland can attest that his methods really work and are worth a try. Another look at his Vega is shown on the photo page. We can also add that "Snot Tape" is the perfect way to go for many applications.





PAX RIVER INDOOR CONTEST

SATURDAY, MARCH ??, 1994 9:00 AM to 5:30 PM

(CONTEST DATE CONFIRMATION WILL BE IN THE MAR/APR MAX-FAX)

ROTARY WING HANGAR-BUILDING 111 NAS/NATC PATUXENT RIVER-LEXINGTON PARK, MD

NO ENTRY FEE - DONATIONS TO NAVY RELIEF SOCIETY WELCOMED

MAJOR EVENTS (FAC Rules & Trophies awarded)

•MASS LAUNCHES

- 1.- OLD TIME SCALE * 11:00 AM
- 2- WW-1 12:00 PM
- 3- NAVY SCALE 1:00 PM
- 4- PEANUT SCALE 2:00 PM
- 5- GOLDEN AGE 3.00 PM

•OTHER EVENTS

- 6. FAC RUBBER SCALE
- 7- COCONUT SCALE **
- 8- 14 GRAM BOSTONIAN***

•SPECIAL EVENTS

- 1- FAC POWER (Electric & CO2)
- 2- 7 GRAM NO-CAL***
- 3- NOVICE PENNYPLANE (AMA RULES)***
- 4- MASS LAUNCH CONSOLATION EVENT
- Flown About 4:30 PM *****
- 5- COCONUT MASS LAUNCH *****
- 6- NO-CAL MASS LAUNCH*****
- 7- ELECTRIC BOGUS SCALE BOSTONIAN*****

* OLD TIME SCALE RULES - Built from any old time kit plan which was sold before December 31, 1942 with a 20 inch wingspan or less. Construction may be heavier but not lightened; nose block and rear motor attachment may be modified.

** COCONUT RULES -All COCONUTS must ROG for official times except for the special MASS LAUNCH event.

*** Single best flight time determines winner.

**** SECOND and THIRD place flyers from the 5 standard MASS launch events are eligible to enter this event but must use plane flown in those events.

***** These events will be flown about 3:30 and 4:00 PM.

*****BOGUS SCALE BOSTONIAN RULES with 2x50 mah maximum battery size.

•AIRCRAFT FOR SCALE JUDGING MUST BE TURNED IN BY 11:00 AM;

No Qualifying Flight is Required

•ALL FLIGHT TIMES MUST BE SUBMITTED BY 4:30 PM DEADLINE

•ONLY ONE MASS LAUNCH EVENT PER AIRCRAFT

•CONTEST INFORMATION: CLAUDE POWELL (301) 872-4105, or TOM SCHMITT (301) 530-0327

IMPORTANT : PLEASE CONTACT CLAUDE POWELL AT LEAST ONE WEEK BEFORE CONTEST TO PROVIDE YOURS AND GUESTS NAMES FOR ENTRY TO BASE — IF YOU HAVE DONE SO IN THE PAST YOU DON'T HAVE TO THIS TIME.

ALSO, THERE ARE NO CHAIRS OR TABLES AVAILABLE, SO BRING YOUR OWN !

***SPONSORED BY:* NAVAL AIR STATION/NAVAL AIR TEST CENTER,
PATUXENT RIVER, MARYLAND AND
ST. MARY'S COUNTY RECREATION AND PARKS**

LISTEN-UP ! Make sure you set aside this 15th of January to attend Pat Daily's annual bull session. The plan is similar to last year's successful outing. We will first meet at the Richmond International Airport (RIA) museum at 1 PM, then head over to Pat's house by 5 PM for a major showing and telling and lying session. The map below should get you there from anywhere.

Meet at the Virginia Air Museum at 1:00 PM.
Regroup at Pat's house at 5 PM for craziness.

Pat's phone : (804) 330-0825
3452 Lady Marion Ct.
Richmond, VA

NOTE: It's about 95 miles from the south end of the D.C. beltway to the museum.

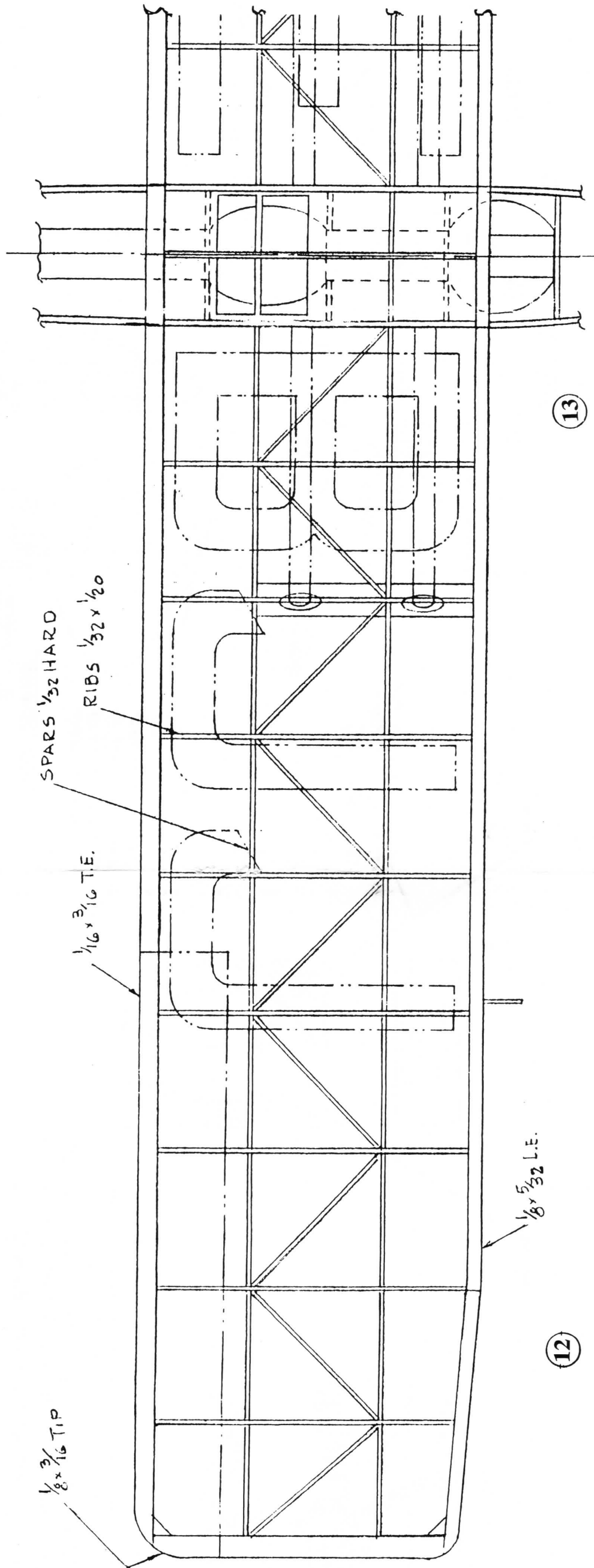
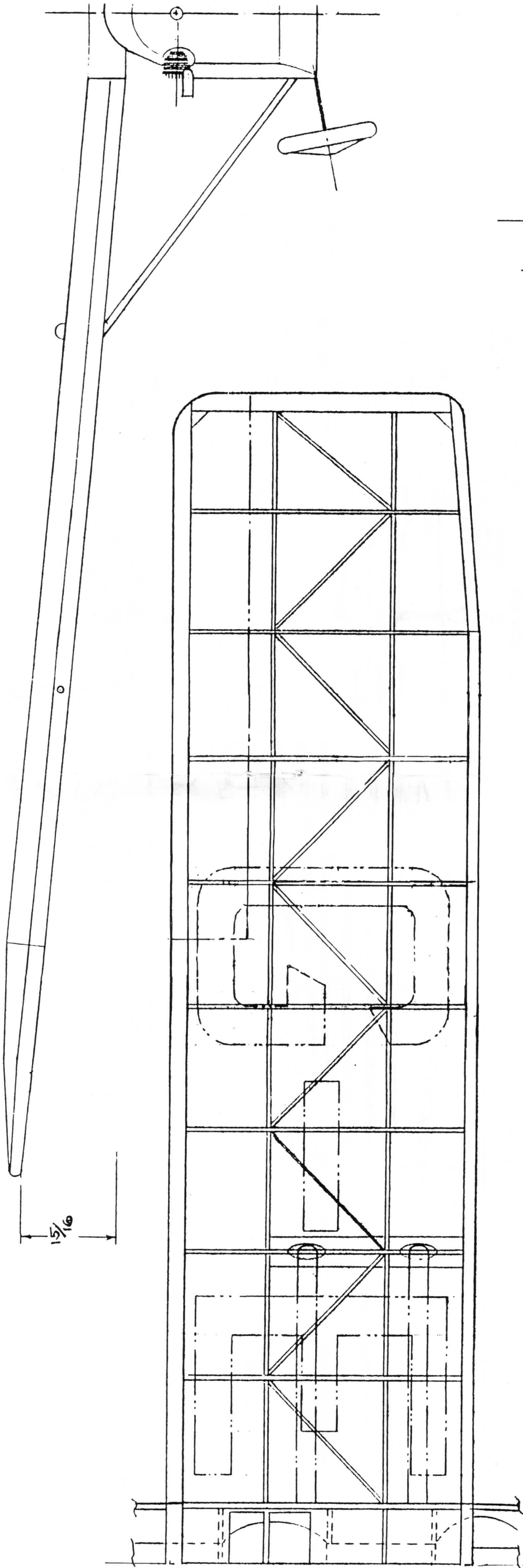
NOTE: Your Dues Are Due

CLUB OFFICERS	President	Terry Pittman 7863 Colonial Vil. Row Annandale, VA 22003
	Secretary	Bert Phillips 1709 Crofton Pky Crofton, MD 21114-2305
	Treasurer	Frank Rowsome 10904 Bellehaven Rd. Damascus, MD 20872



MEETINGS The D.C. Maxcuters hold meetings on the first Tuesday of every month at the College Park Airport, the oldest operating airport in the U.S.

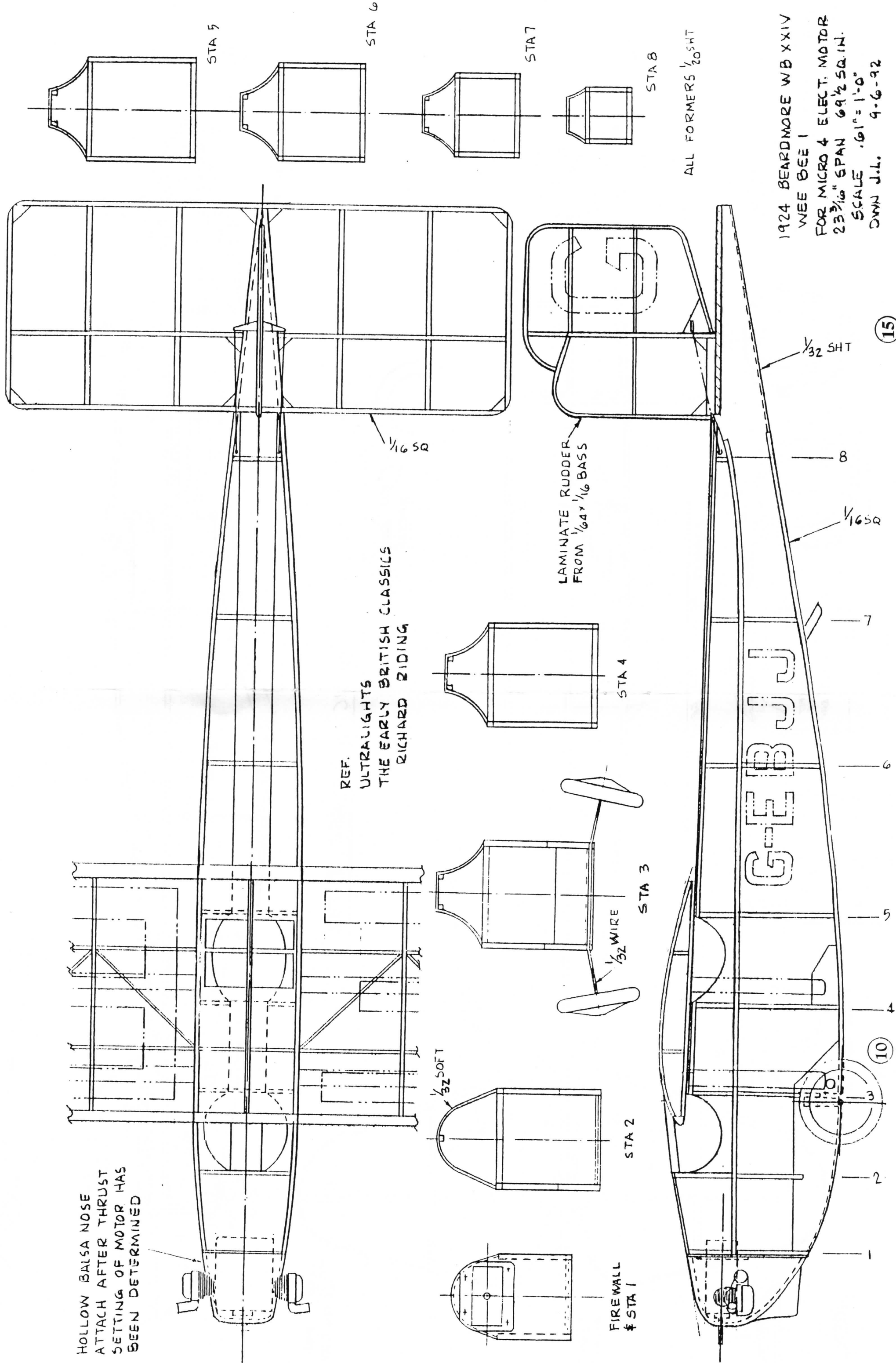
MEMBERSHIP Dues for membership in the D.C. MAXECUTERS is \$15 per year for residents of the USA, Canada, and Mexico, and \$25 for all other countries. Your mailing label indicates the year and month of the last issue of your current membership. A red "X" in the box above is a reminder that your dues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



(13)

(12)

HOLLOW BALSA NOSE
 ATTACH AFTER THRUST
 SETTING OF MOTOR HAS
 BEEN DETERMINED



REF.
 ULTRALIGHTS
 THE EARLY BRITISH CLASSICS
 RICHARD RIDING

FIREWALL
 # STA 1

STA 2

STA 3

STA 4

STA 7

STA 8

STA 5

STA 6

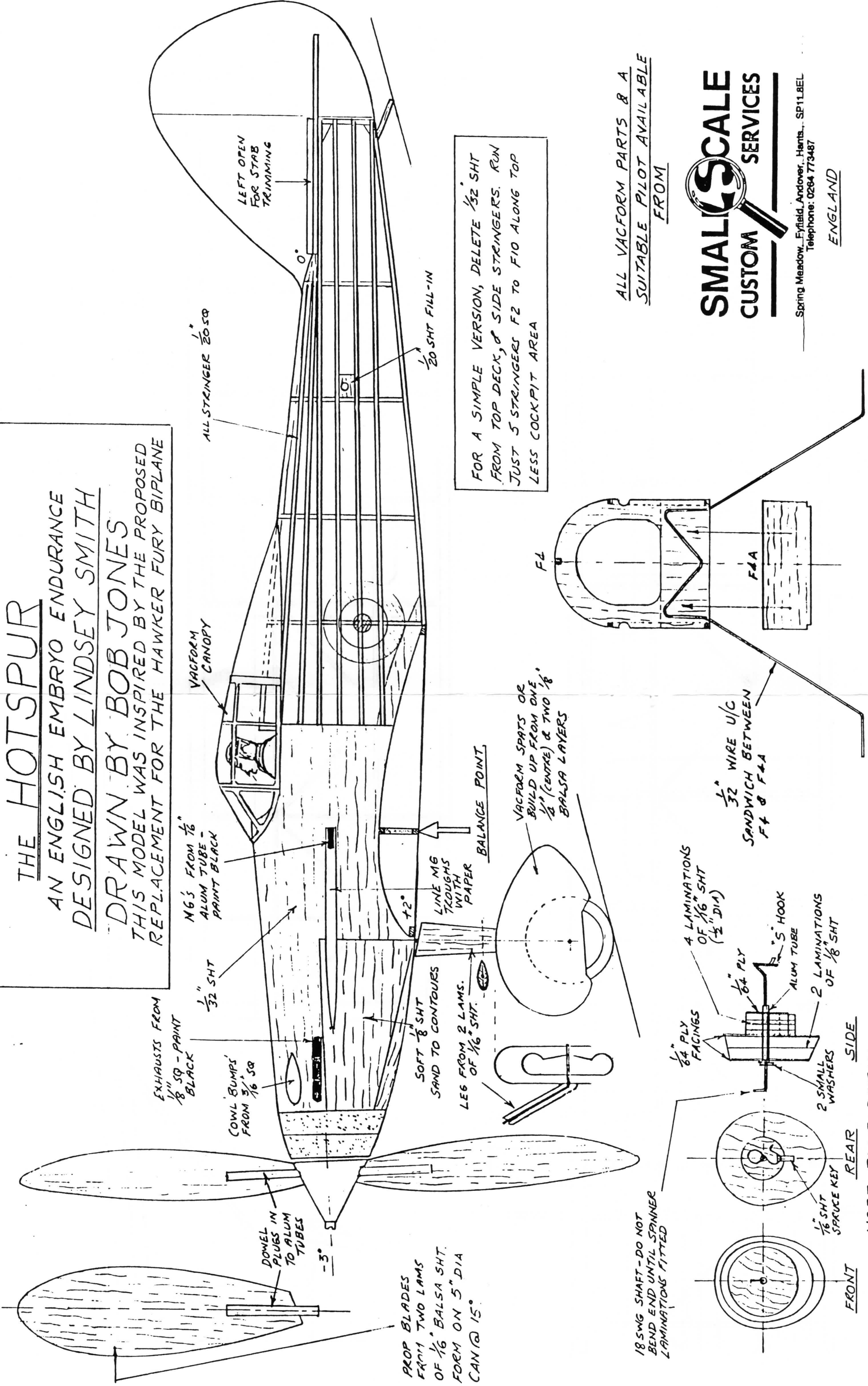
LAMINATE RUDDER
 FROM 1/64 x 1/16 BASS

ALL FORMERS 1/20 SHT

1924 BEARDMORE WB XXIV
 WEE BEE I
 FOR MICRO 4 ELECT. MOTOR
 23 3/16" SPAN 6 9/2 SQ. IN.
 SCALE .61" = 1'-0"
 OWAN J.L. 9-6-92

THE HOTSPUR

AN ENGLISH EMBRYO ENDURANCE
DESIGNED BY LINDSEY SMITH
DRAWN BY BOB JONES
THIS MODEL WAS INSPIRED BY THE PROPOSED
REPLACEMENT FOR THE HAWKER FURY BIPLANE

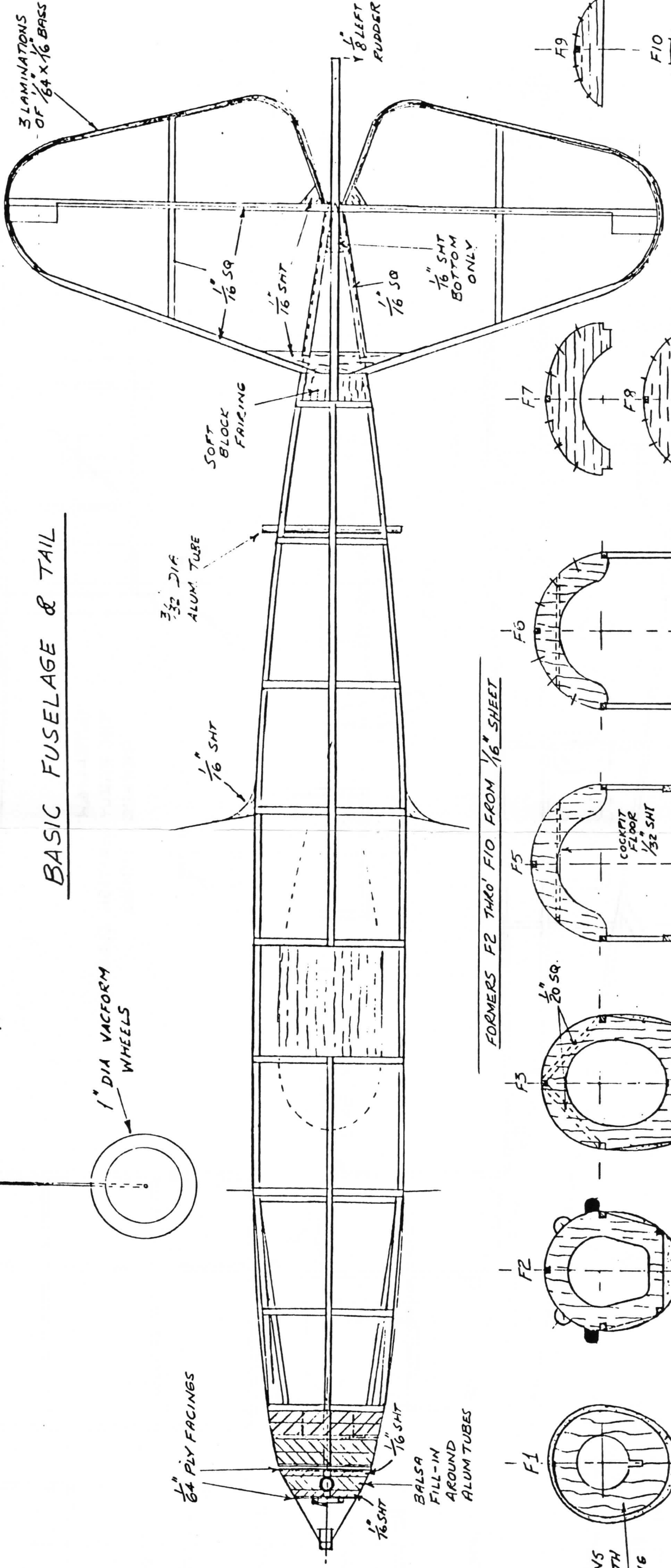
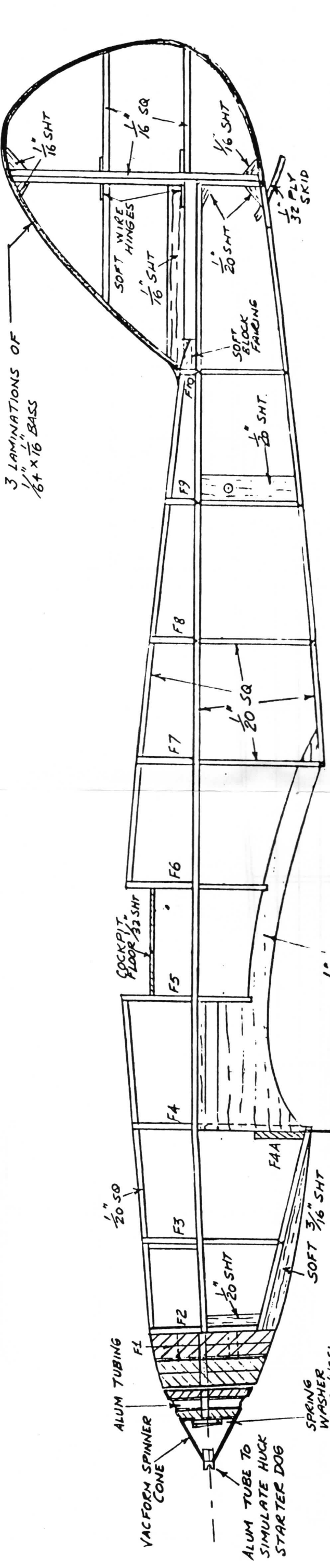


FOR A SIMPLE VERSION, DELETE 1/32 SHT FROM TOP DECK, & SIDE STRINGERS. RUN JUST 5 STRINGERS F2 TO F10 ALONG TOP LESS COCKPIT AREA

ALL VACFORM PARTS & A SUITABLE PILOT AVAILABLE FROM

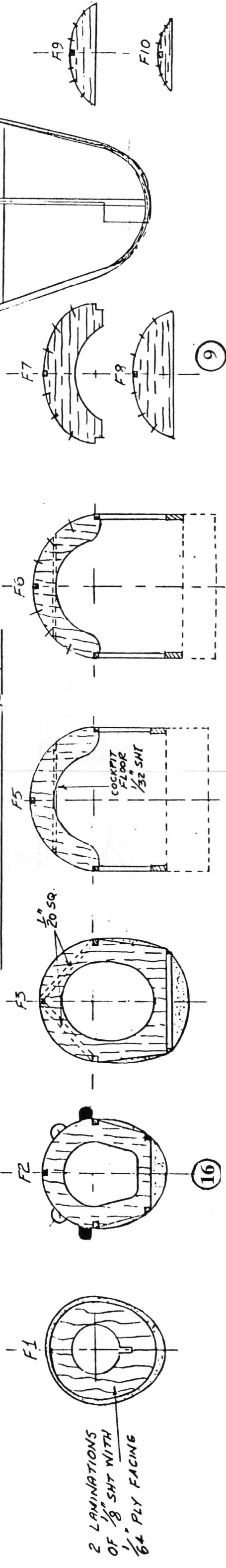
SMALL SCALE CUSTOM SERVICES

Spring Meadow, Fyfield, Andover, Hants., SP11 8EL
Telephone: 0284 773487
ENGLAND



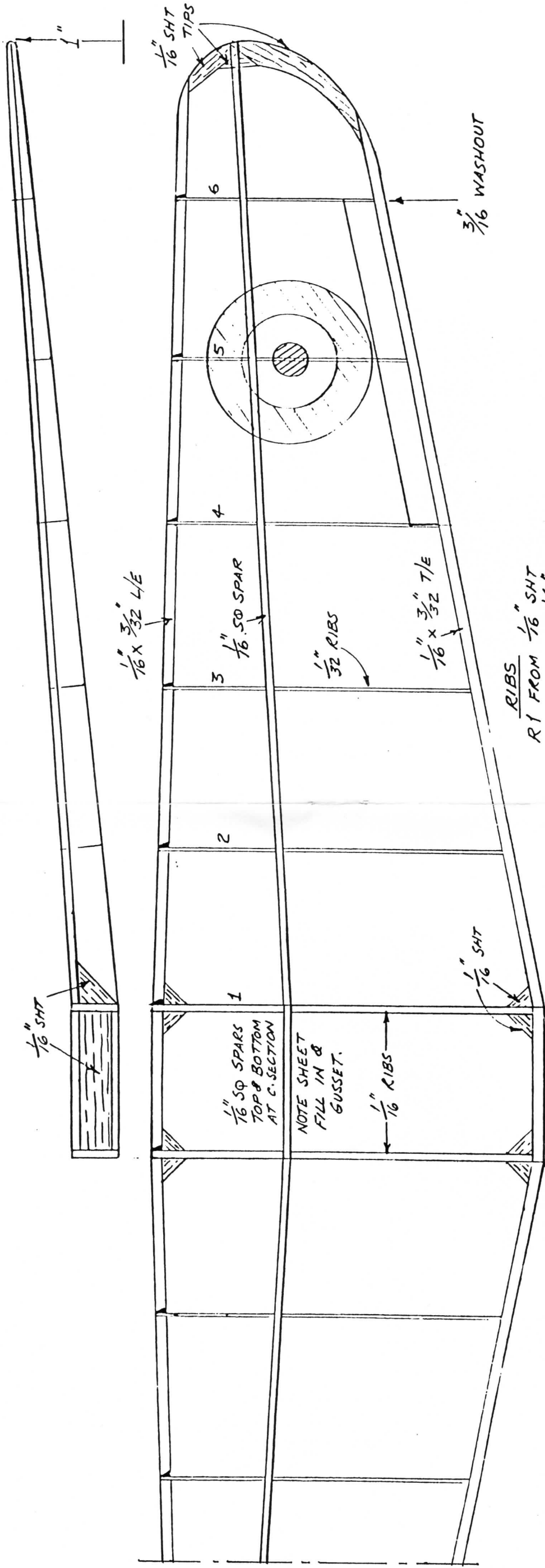
BASIC FUSELAGE & TAIL

FORMERS F2 THRU F10 FROM 1/16" SHEET

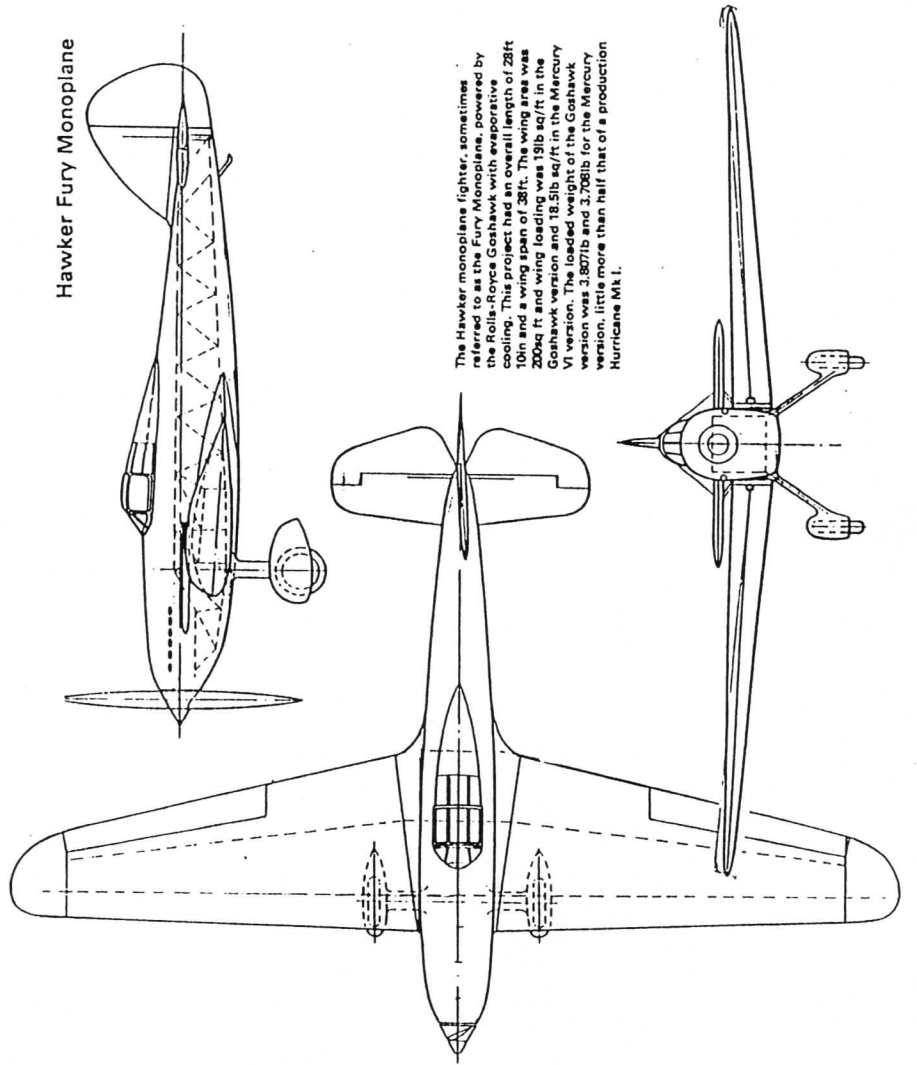


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16



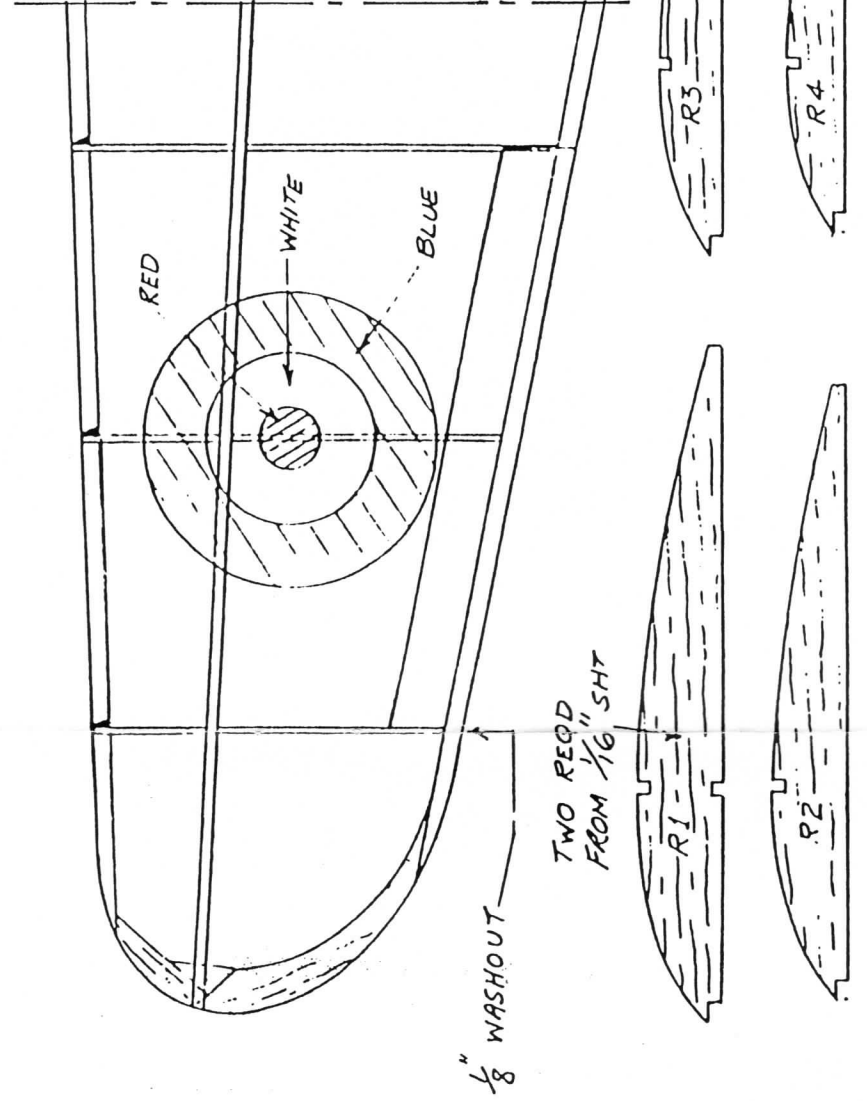
RIBS
R1 FROM 1/16" SHT
R2 - 6 FROM 1/32" SHT.



Hawker Fury Monoplane

The Hawker monoplane fighter, sometimes referred to as the Fury Monoplane, powered by the Rolls-Royce Merlin engine, was developed for the Royal Air Force. It had an overall length of 28ft 10in and a wing span of 38ft. The wing area was 200sq ft and wing loading was 19lb sq/ft in the Goshawk version and 18.5lb sq/ft in the Mercury VI version. The loaded weight of the Goshawk version was 3,807lb and 3,708lb for the Mercury version, little more than half that of a production Hurricane Mk I.

APRIL '93



POWER
ONE 18" LOOP OF 1/8" FLAT
FAI TAN RUBBER

WEIGHT (WITHOUT RUBBER)
24 GRAMS.

SUGGESTED FINISH
SILVER OVERALL WITH RED,
WHITE & BLUE ROUNDELS.