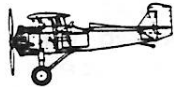




Curtiss R3C-1 (F3C-1)



Curtiss F7C-1



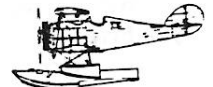
Curtiss F9C-2



Curtiss XF12C-1



Wright NW-1



Boeing FU-1



Atlantic XFA-1



Grumman F2F-1

MAX - FAX

THE NEWSLETTER OF THE D.C. MAXCUTERS

SEPT/OCT 1986

MEMBERSHIP

Dues for membership in the D.C. Maxcuters is \$10.00 per year for residents of the U.S.A., Canada, and Mexico, and \$11.00 for all other countries. Your mailing label indicates the year and month of the last issue of MAX-FAX for your current membership. A red mark in the box below is a reminder that your current membership is nearing its end. Send a check, payable to D.C. Maxcuters, to the Treasurer.

DUES REMINDER



MEETINGS

The D.C. Maxcuters hold meetings on the first Wednesday of every month at the College Park Airport, the oldest continuously operating airport in the world.

PRESIDENT

TOM SCHMITT
11014 Marcliff Road
Rockville, MD 20852

SECRETARY

BILL POOLE
9301 Lynmont Dr.
Adelphia MD. 20783

TREASURER AND NEWSLETTER EDITOR

ALLAN SCHANZLE
20008 Spur Hill Dr.
Gaithersburg, MD 20879

UPCOMING EVENTS

- Sundays : Fun-fly at Comsat whenever the weather is good. 5:00 PM 'til dark.
- Sept 6: MAXCUTERS SUMMER FUN FLY at Comsat.
- Sept 20: FAC contest at Fayetteville North Carolina. See Map.
- Sept 28: Old Timer Rubber Powered Contest at Comsat.
- Nov 1: Indoor contest at Pax River. See flyer in this issue.
- March 21, 1987: Indoor contest at PAX River.

*****CAUTION*****

THE FIELD AT COMSAT HAS DEVELOPED QUITE A FEW SMALL PATCHES OF POISON IVY THIS YEAR. WE SUGGEST YOU AVOID SHORT PANTS FOR THE SUMMER FUN FLY UNLESS YOU ARE IMMUNE TO THIS PLANT.

CLUB NEWS

ALLAN SCHANZLE

The big news for the club has got to be the Spitfire contest and the FAC NATS. Let's take them in chronological order.

The Spitfire contest was a Lulu. We here in the Washington area have had a terrible spring for flying. The wind has been non-stop, even at 11:00 PM. So on June 21, the date of our Spitfire wingding, we all expected more

of the same. But by Hung, things changed, just for this weekend. The temperature was in the high 70's, the humidity low, and the wind minimal. All in all, it was one of those near perfect days. In addition, thanks to the local lads, we had a total of 13 Spitfires, with an additional 4 No-Cals. Check in this issue and you'll find the details of the results. The grand champion was Kevin Sharbonda, who managed to take first place in two of the four events. But the real winners were those who just showed up, for they got to see a whole squadron of the most beautiful WW-II fighters in the air at one time. That was enough to make any aviator's day. We thank all contestants for taking the time to build a model of the Spit, which may or may not have been high on their list of projects.

And now on to the FAC NATS. What can be said that hasn't been said about the four previous FAC NATS? It was a Happening. Over 100 modelers flying their stick and tissue pride and joys. The weather, while very humid, was reasonable. A little drizzle and a storm passed around us, but the wind was relatively calm, at least compared to what we in Washington have seen all year. And the field was just great. Big, with tall grass and taller wheat. A free flighter's dream come true.

The final tally of results were as one might expect. For the fourth time in five FAC NATS, local flyer Don Srull put on an exhibition of how it should be done, and walked off with the Grand Champion trophy. His collection of hardware included trophies for the following:

- 1st FAC Scale.
- 2nd FAC Power Scale.
- 2nd WW-I.
- 2nd FAC Jumbo.
- 2nd Golden Age.
- 3rd WW-II.

Not too far behind was Dave Rees, another fellow all Washingtonian scale F/F'ers like to consider as a local member, since he invariably attends every major contest we have and he drives 5 or 6 hours to get here. Dave collected the following awards.

- 1st The Grieve Races.
- 2nd The Thompson Races.
- 3rd FAC Scale.
- 3rd FAC Jumbo Scale.
- 3rd Indoor WW-I. (Unofficial event)
- 4th WW-I.

Special achievement award for his C.A.N.T. tri-motor Jumbo entry.

Between these two lads, that doesn't leave a lot for the rest of us, but believe it or not, some other local entries did their fair share of hardware gathering. This includes:

- Pat Daily.....1st WW-I.
- Allan Schanzle.....1st FAC Power Scale (tied with Bob Clemens)
- Bruce Price.....5th WW-1.

If all this isn't enough, the FAC'ers in attendance from metropolitan Washington numbered 16. They are, in alphabetical order, Bill Bell, Hurst Bowers, Bill Bowles, Doug Buchanan, Bill Ceresa, Pat Daily, Dan Driscoll, Rolf Gregory, Claude Powell, Bruce Price, Ray Rakow, Allan Schanzle, Tom Schmitt, Kevin Sharbonda, Paul Spreiregen, and Don Srull. That's a pretty fair representation, and to the best of my knowledge, unexceeded by any other geographical area.

A special mention is also appropriate for one additional "non-local" Maxecuter, and that is John Houck, who, with his son Mark, drives from

Pennsylvania for every major Maxecuter contest. John showed up with a good flying F-82 twin Mustang, and did it ever look good in the air.

To all of you: contestants, observers, helpers, supporting family members, and especially the contest organizers, a hearty THANKS !!!!!

This issue features another racer by Dave Stott, the Allenbaugh. You'll also find a nifty idea on drawing oval fuselage contours by Ned Kragness, contest results, and FOUR, that's right, four pages of photos by Tom Schmitt. Hope to see you in September.

POWER SCALE...A DILEMMA
Allan Schanzle

Those of us who have participated in the FAC Power Scale event over the last few years are aware of the problems of finding an equitable set of rules which maintain the spirit of the FAC. The bonus points have been added to everything except your home mortgage in an attempt to develop a reasonable concept. Still, things just don't look right, at least to me, even though I was lucky enough to tie for 1st at the FAC NATS. So why should I want to change them? Simple. The rules that were written in FAC NEWS do not reflect what was intended. Let me clarify. The intent was to add the bonus points to the flight "time," but the official rules state that the bonus points are to be added to the flight "points," with a maximum time of 120 seconds, or a maximum of 82 1/2 flight points. This still emphasizes the endurance aspect of the power scale event, and if you're willing to put in a big enough tank or battery pack, a two minute flight is a trivial exercise. At this past FAC NATS, Bob Clemens and I tied with maximum flight times, and we had identical static scores. The "qualifying flight time" was, for all practical purposes, a maximum flight, and the event became a static contest. So who won? Both of us, but the trophy was awarded by a flip of a coin. A fly-off doesn't make sense, since the contestant with the biggest tank (or battery) is the winner. And besides, the FAC rules were just changed in the power event to eliminate the "big tank, big bonus point" winner.

So what do we do? After all, it's easy to criticize an existing condition, but in my opinion, if you're going to criticize, you had best have an alternative suggestion. I propose the following, and we are going to try this at our September Fun-Fly. I'll call it MAXECUTER POWER SCALE.

This year we will have TWO power scale events, and trophies will be awarded for each. The first will be run as the rules were INTENDED to be written (bonus points will be added to the flight "time"). The second will be a completely new concept with two specific intentions:

1. Eliminate the emphasis on endurance, and
2. Maintain the application of bonus points, but only where it seems proper for a power scale event.

The static evaluation will adhere to the traditional FAC concept, but the flight points will be awarded in a manner similar to that used by the "Others," i.e., an evaluation of realism of flight. My objection to this in the past has been that this means another impartial judge (a patently impossible constraint) must be found and be willing to give up his flying time to do the judging (a patently ridiculous idea). So here's what we're going to try this September. Flight realism will be judged on three aspects: climb-out, cruise, and approach. And who will judge this? Well, if you enter the FAC Power Scale event, then YOU will be a judge. That's right, all power scale contestants will gather after the last mass launch event (when the wind is a minimum, hopefully) and one contestant will make a flight of at least 20 seconds. Each of the other contestants will evaluate, on a basis of 0 to 10, each of the three categories noted above. An average score for each category will be computed, and the three average

values will be added together to give the flight score. A perfect score would total 30, and so to equalize the emphasis on the static and flying, your flight evaluation will be multiplied by two, so a perfect flight score will be 60, which is close to the maximum you can obtain in the static evaluation. After one flyer has put in his one and only flight, a second contestant will make his flight, and all other contestants will evaluate his flight characteristics. The averaging process will help to eliminate any biases one of the flyers may have for the appearance of a particular type of aircraft.

So far, so good, and all the arithmetic mumbo-jumbo is really not that complicated. How about the bonus points? This will no doubt raise a few eyebrows, but in my opinion, and experience bears this out, it's no harder to fly a CO-2 multi-wing plane than a mono-plane. Don Srull has proven that the same is true for canards and/or pushers. Drag producing items, such as floats, simply means you use a little more power. So what's left? Off-center multi-engines, which require maintaining equal thrust throughout the flight time. For electric power, even this may not be a problem, and I propose initially that NO bonus points be added for electric power. This can be changed if experience so dictates. For CO-2 or gas, multiple engines not on the centerline of the fuselage can indeed offer substantial difficulties. Tom Schmitt convinced me of the problems for CO-2 with one of his models, even with a common tank feeding both engines. The potential problems for gas engines are even more staggering. So let's give some benefit to the non-centerline multi-engined models powered by CO-2 or gas. The question is, how to do this. Several methods are available, but the easiest, from a computational point of view, is to add a specified number of points for each non-centerlined engine. How many points are appropriate? That's a good question, but I propose 5 points per non-centerline engine, which means a B-25 will get 10 bonus points, while a B-17 will get 20. Once again, the magnitude of the bonus points can be changed as experience is gained with the overall concept. The final score for the proposed Power Scale event is then:

Score = Static Points + Flight Points + Bonus Points.

Someone out there is thinking multi-gas engines are substantially more difficult than multi-CO-2, and I agree. But let's not make the rules any more difficult than necessary. If you want to build a B-26, do so, but use CO-2 or electric.

Next, I think it is necessary to specify how the MAXECUTERS will break a tie in this power scale event. The first consideration will be the static evaluation: The contestant with the highest static score will be the winner. If static scores are identical, then the contestant with the highest flight score will be declared the winner. If, after all this, the flight scores are identical, we will declare dual winners, and two first place trophies will be awarded, but NO second place.

Finally, since I've proposed dropping most of the bonus points, Pat Daily, our resident Hell-Raiser at the Wednesday night meetings, thinks that some kind of benefit should be added based upon the complexity of the model chosen. I'll be glad to incorporate this into the rules, just as soon as ole Patti gives me a well thought-out proposal. I'm inclined to agree with the concept, but at this time, I don't know how to incorporate a simple solution.

OK...these are my suggestions. Remember, this is NOT a proposal to replace FAC Power Scale, but a proposal for MAXECUTER POWER SCALE. Write in your comments. We'll publish them all.

PHOTO PAGES
Tom Schmitt

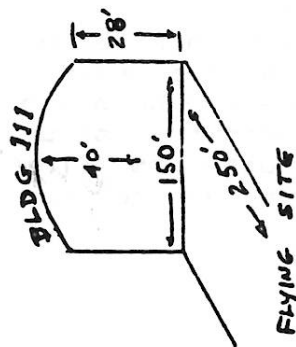
1. A speedy Allenbaugh racer is this month's feature plan by Dave Stott. Original photo was in color by Dave. This B and W does not do it justice.
2. No, it's not Dick Korda, but Professor Bud Carson giving his all at Galesville.
3. May was international visitor's month at Shangrila. Vincint Pallanca from Nice, France examining Allan Schanzle's Potez (before it was painted, and
4. Lindsey Smith and his lovely wife Jane, from England, holding Don Srull's Voisin seaplane racer.

"ACHTUNG SPITFIRE"

5. Bill Bell ready to launch his enlarged Earl Stahl Spitfire MK IX.
6. Peg Phillips encourages Scott Paisley to repair his NO-CAL.
7. Dan Driscoll holding, Randy Kleinert winding.
8. Mark Houck winding his Comet Spitfire while Dad holds.
9. Frank Renaut's son Gilbert, grandson Jonathan and granddaughter supporting Frank's whimsical sentiments, "I know the Queen expects me to do my duty."
10. Bert Phillips and chief mechanic Evelyn winding for combat over Comsat.
11. A MK XIV from Gordon Robert's plans in CROSSWINDS; built by our visitor from Ohio, Dan Briehl.
12. Claude Powell surveys the opposition while holding his high flying Earl Stahl Spitfire. This was one of the better flyers.
13. Not quite all the Spitfire Commemorative bunch; A great time was had by all, including non-Spitfire builders.

FAC NATS MK V

14. Charlie Schöbloher with his jumbo Spitfire.
15. Another Spit, this time all black in Israeli markings, by Mark Fineman.
16. Bob Wetherell, master builder, with his Avro Avian Monoplane, geared prop with two motors. Bob won the perpetual Earl Stahl trophy with his magnificent Aeronca C-2
17. Dave Stott with his high flying Cunningham Hall, from MAX-FAX plans.
18. Fernando Ramos and his Diesel powered biplane with pendulum ailerons.
19. This was the year for tri-motors. Dave Rees and his award winning C.A.N.T. bomber Z.1007
20. Don Srull and his jumbo C.A.N.T. Z.1012.
21. Hurst Bowers holding Walt Eggert's glo-powered reincarnation of his NATS winning Meteor of many years ago.
22. Jack Moses all set to launch his great flying Skua, enlarged from Earl Stahl plans.
23. Vince Gilbert with his jumbo Lockspeiser LDA. This flew very well.
24. Everyone's favorite airplane in rubber jumbo (1/4 size?), built by Steve Buso. (Your editor will, for once, keep his mouth shut!!).
25. Bob Anderson with his jumbo O-46.
26. Genial Bill Ceresa and his very pretty Wee Will peanut.
27. John Houck shows great form in launching his great flying twin Mustang.
28. Another work of art by Bill Noonan, this one a rendition of a Latecoere. How 'bout that great Tee-shirt print?
29. Pres Brunning and another great tri-motor, the SM. 84.
30. "NO Phineas, I said Oshkosh, not Geneseo!" A terrified passenger and a very determined pilot in a Davis parasol, by Dick Bennett.
31. Required attire for the Sunday evening dinner parties at Shangrila, by order of the Field Marshal Allan Schanzle. Champagne and hors d'oeuvres served promptly at six!! (Editor's note: In reality, it was the occasion of my daughter's wedding, but the weather was just too good to pass up a little flying. And besides, it only took a few minutes to find someone else to "give the kid away." At least SOME of us have got our priorities in order!!)



INDOOR MODEL AIRPLANE

CONTEST

NOVEMBER 1 1986

9:00 AM - 5:30 PM

Rotary Wing Hangar, Building 111
 NAS/NATC Patuxent River, Md.
 (Lexington Park, Md.)

1983 FAC Rules

No Entry Fees

MASS LAUNCH	ENDURANCE EVENTS
WW-I	FAC SCALE
US NAVY SCALE	FAC CO-2 SCALE
PEANUT SCALE	BOSTONIAN
GOLDEN AGE	NO CAL (7 GRAM MIN. WITHOUT RUBBER)

NOTE: NAVY MASS LAUNCH IS FOR U.S. NAVY PLANES ONLY IN U.S. NAVY MARKINGS

AWARDS: 5:10 - 5:30

FAC scale judging starts at 11:00 AM. NO qualifying flight required. All flight scores submitted by 4:00 PM.

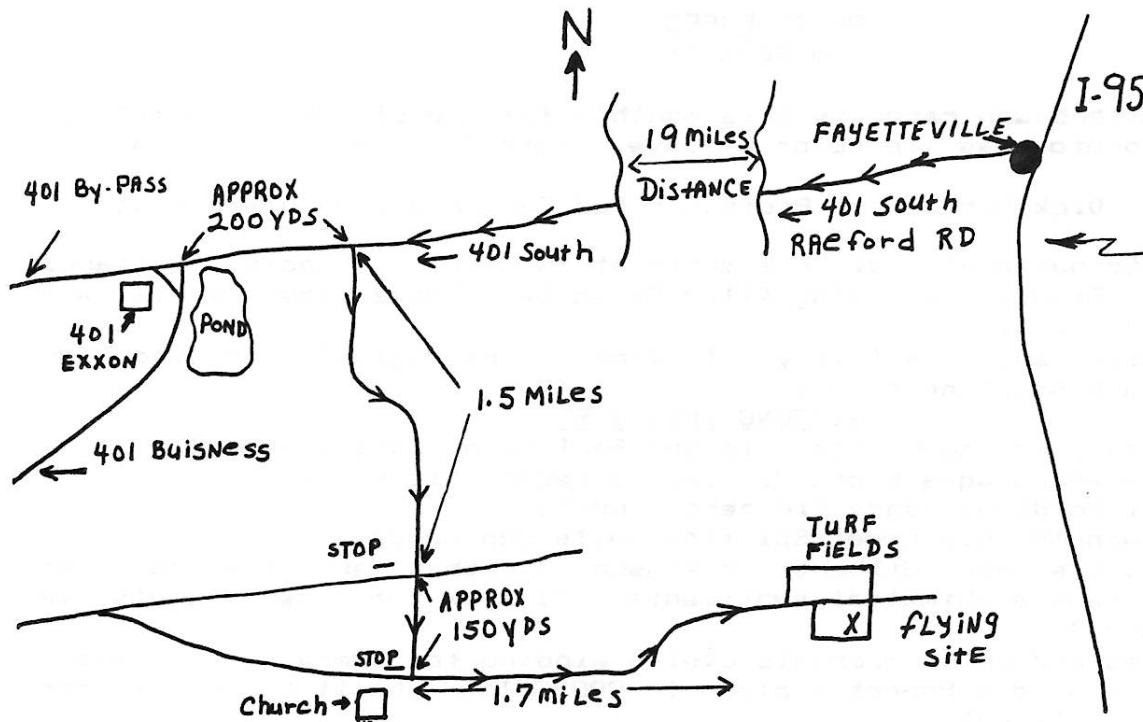
Local Rule: One event per model.

Information: Claude Powell (301) 872-4105 (Coordinator)
 Alan Schanzle (Contest Director)
 Tom Schmitt (301) 530-0327 (Alternate POC)

Sponsored By: Naval Air Station/Naval Air Test Center,
 Patuxent River, Md. and St. Mary's County
 Recreation and Parks.

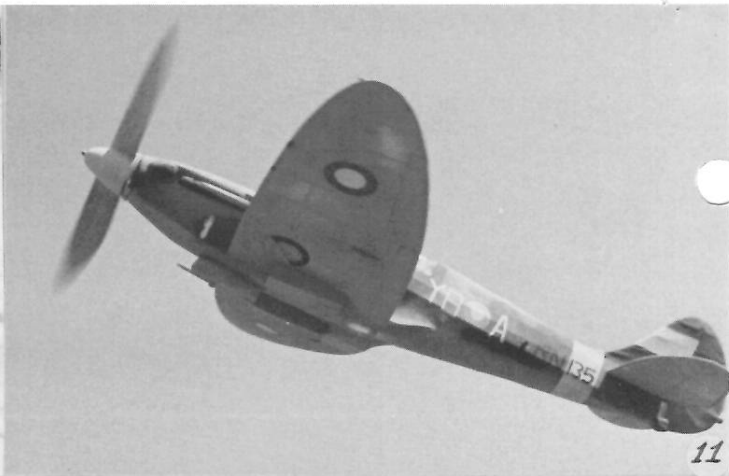
Special Events: No Awards

PENNY PLANE
 H. L. GLIDER
 HELICOPTER



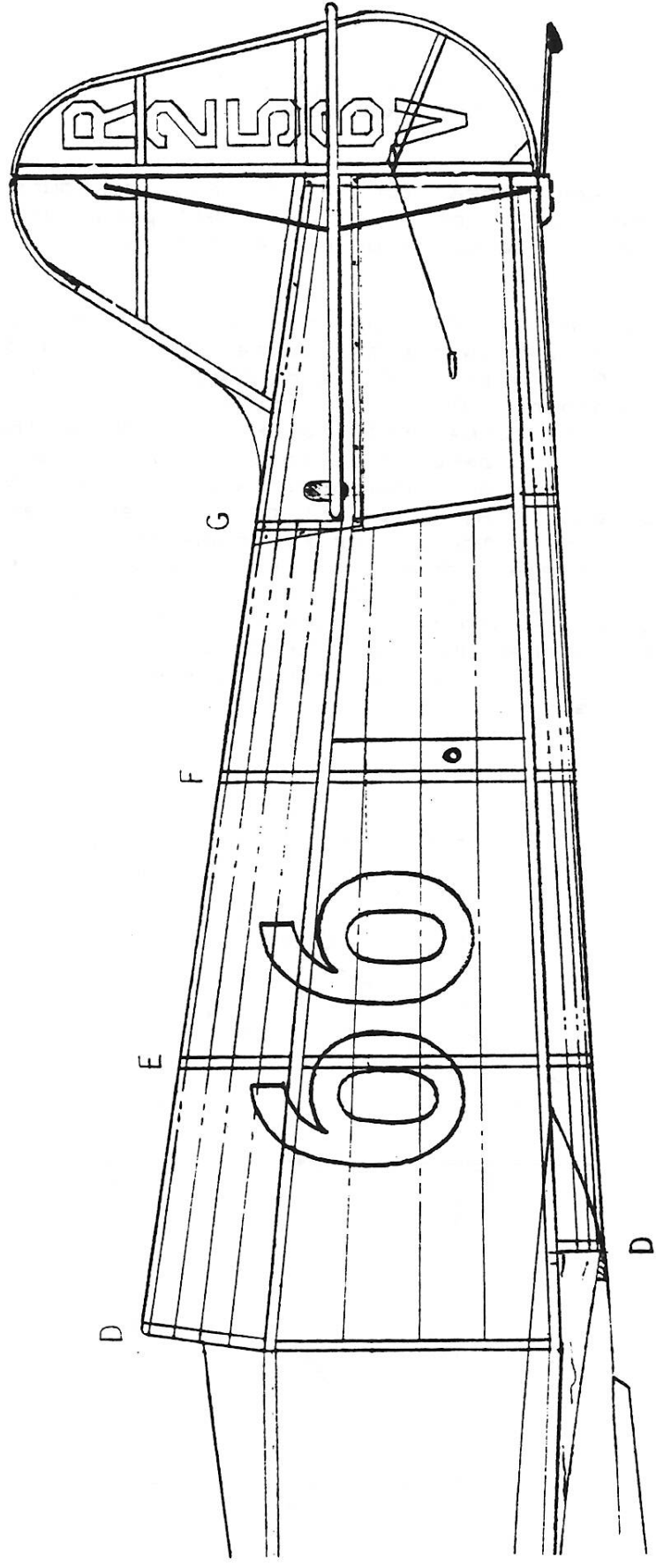
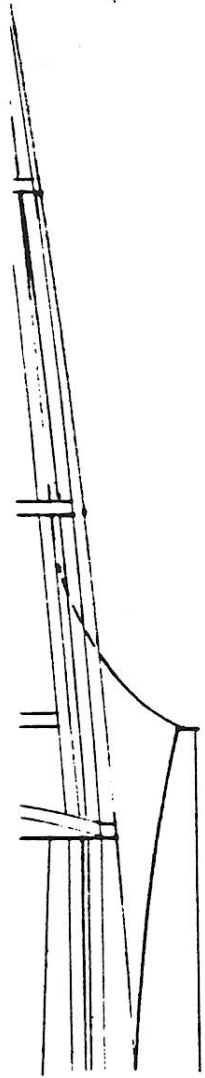
MAP TO
 N.C. CONTEST.











ALLENBAUGH MODEL A

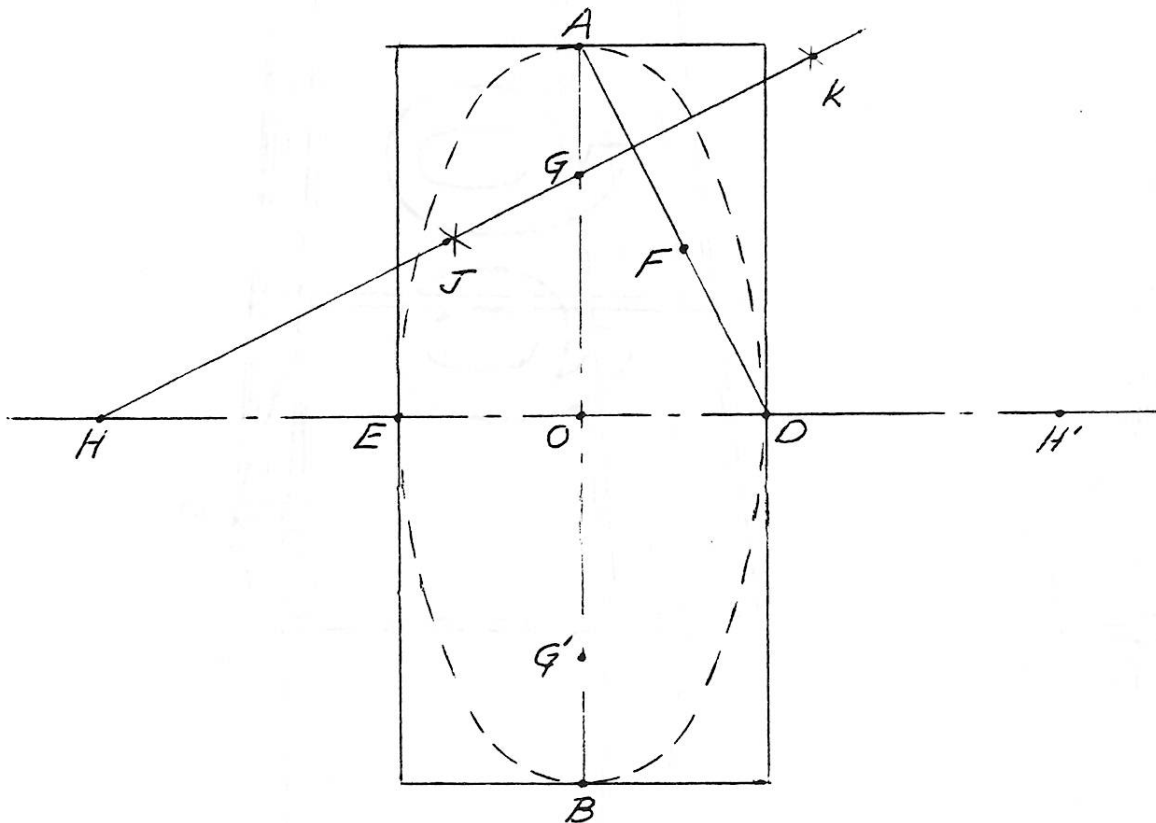
40HP SALMSON

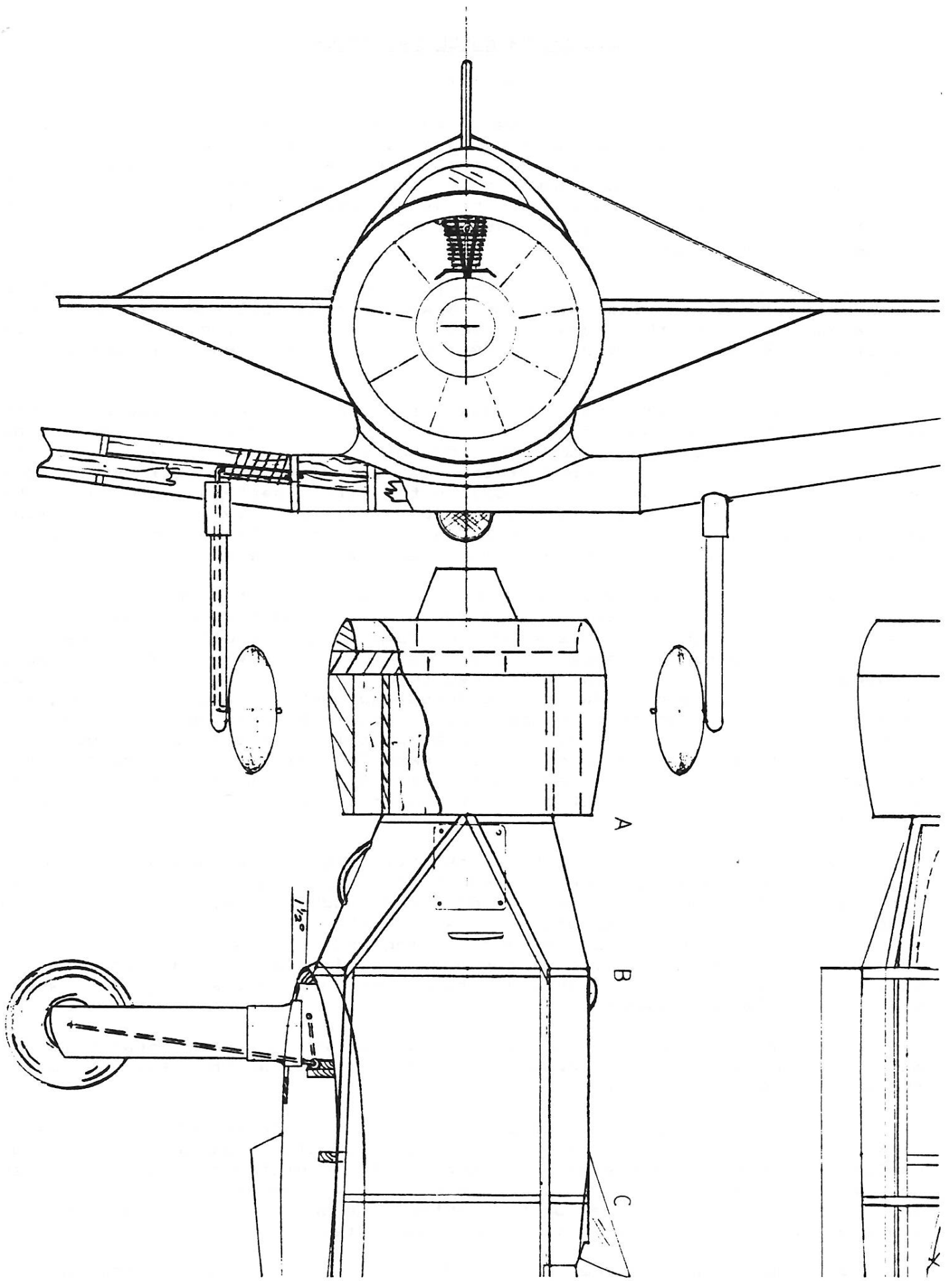
11/24 21.2.8.

OVAL FUSELAGE CONTOURS
NED KRAGNESS

Here is a clever idea for laying out contours for oval shaped fuselages. The result will not be an exact ellipse, but will be very close, and they will produce a sequence of curves that will transition nicely from one fuselage section to the next.

1. Draw the rectangle with AB equal to the fuselage depth, and DE equal to the fuselage width. Draw the two center lines AB and DE.
2. Draw the line AD, and lay off the distance DF equal to AO minus DO.
3. Construct the perpendicular bisector of AF which will cross AD at G and DE (extended, if necessary), at H. If you've forgotten your high school geometry, the perpendicular bisector is constructed as follows: Use a compass set for any reasonable arc (the length AF will be swell), center the compass at A, and mark two arcs above and below the line AF (points J and K). Now center the compass at F using the same arc setting as before and draw two more arcs which intersect those drawn previously. Draw the line JK that connects the intersection of the arcs. This is the perpendicular bisector of AF.
4. Locate G' and H' so that $OG = OG'$ and $OH = OH'$.
5. The points G, G', H, and H' are centers for compass arcs which give the fuselage contours.





ALLENBAUGH MODEL "A" RACER

DAVE STOTT

Long are the ranks of the unheralded geniuses (or genii) of aviation. You will find Eddie Allenbaugh marching among them. Anyone with the ability and ambition to build a racer powered with a 40 horse power nine cylinder Salmson radial, and enter it in the National Air Races to clip off a very respectable 124 MPH around the pylons certainly is just this, and only the beginning of his racing enthusiasm. There was much more, but we are here to enjoy his "Model A".

At first glance the full NACA cowl gives the illusion of a big power house ala Hughes with its twin row P&W Wasp and 25 foot span (longer span for Bendix). But this gnat's engine was a diminutive 26 inches in diameter! Span of the wing was a mere eighteen feet. An efficient little packet.

Our model spans 18 inches and qualifies for the F.A.C. Thompson Trophy event. Williams Brothers cylinders were split in half and used inside the cowl recess along with dummy push rods of 1/32 diameter bass wood to simulate the Salmson. The rest of the plan is pretty much self-explanatory except for a couple of items. One is the little pattern shown near the nose in the top view that says "ten req'd". This is only a pattern showing the intrusion of the bright red fuselage paint into the dark red paint on the nose and cowling. The other item is the landing gear.

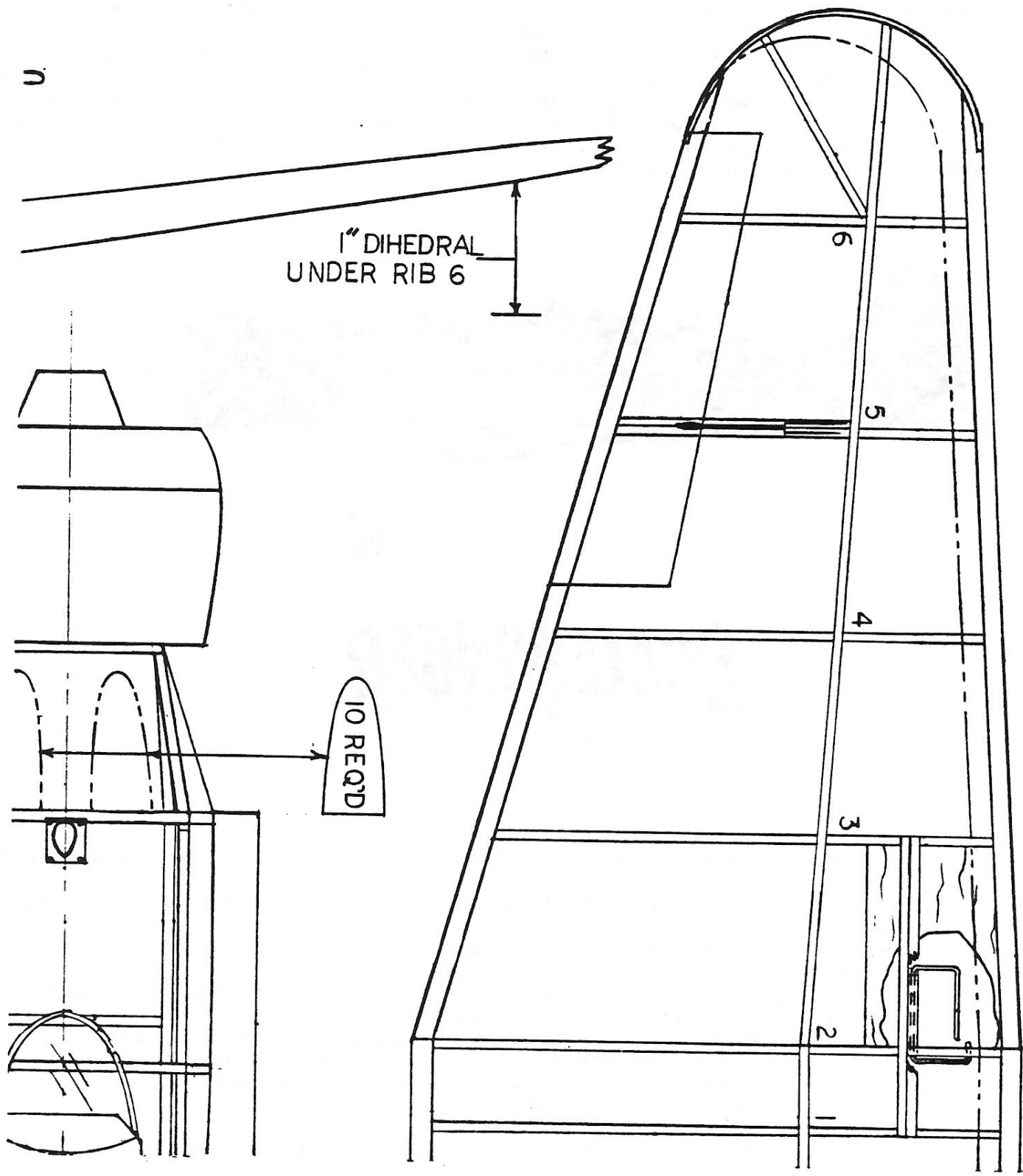
The landing gear shock absorbing system is best identified as a torsion bar type. A piece of .025 music wire is bent 90 degrees to form the axle for the wheel. The wire then runs upward sandwiched between the split balsa fairing as shown on the side view. The wire is then bent inboard about 100 degrees and is passed through a 1/16 O.D. aluminum tube, after which it is bent forward 90 degrees and outboard another 90 degrees to form the small stub that is captured in wing rib #2 as shown in the left wing panel drawing. The aluminum tube containing the wire is glued and lashed with thread to the landing gear beams (a & b) that run from rib #1, through rib 2, to rib #3 (see front view). All this is further reinforced by a slotted piece of sheet balsa between rib 2 & rib 3 (see right wing panel drawing).

Well gang, let's see what colors this little tyke showed the crowded grandstand as she whipped her way round the race course. The following parts were vermilion, or a bright red; the rudder, fin, tail skid, wing leading edge and tip pattern as shown on the plan, wing registration lettering, wing fillets, cooler and fairing under the wing center section, and the wing center section on the underside from a point at the leading edge where the fillet wraps around, to a point at the trailing edge where the fillet extends outward.

The remainder of the wing was yellow, as was the horizontal tail and the landing gear fairing except for the little cuff as the fairing meets the wing. This was vermilion.

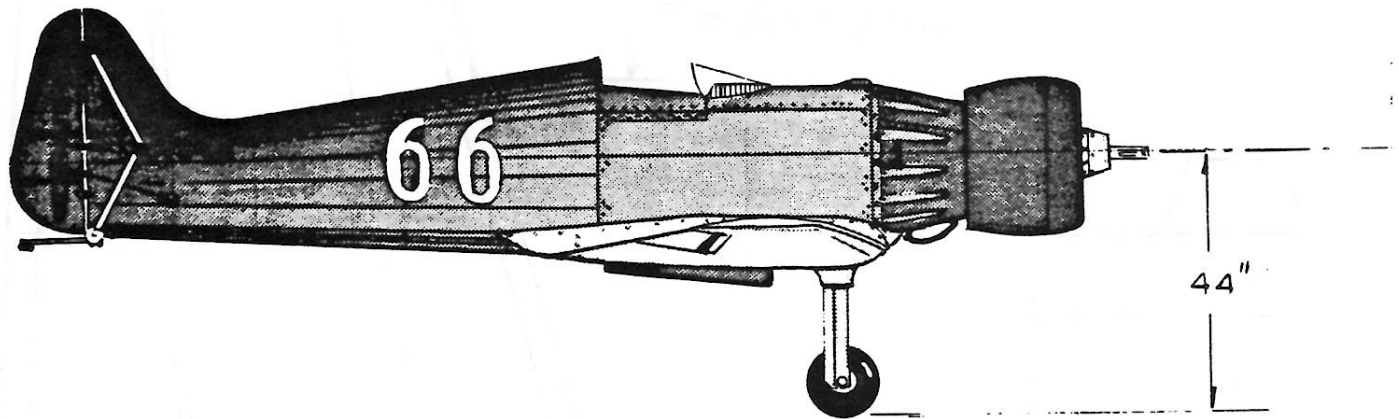
The engine cowl, and that part of the nose back to former "b" was a dark red (maroon) except where those ten elliptical patterns mentioned earlier intruded into the dark red area. The registration on the rudder was in dark red. The small 1/16 diameter tube under the nose as shown on the side view was located on the center line and may have been either aluminum, or copper. Race number "66" was white.

Data sources are a three view in "Raceplanes" by R.S. Hirsch, photos



page 360, Vol. 2, "Sixty Two Rare Racing Planes", by Weaver, and a scrap book clip of unknown source. Salmson engine data from 1938 Jane's.

The model, when fitted with a 7 inch Peck Polymer plastic prop, and powered by a loop of 1/16, a loop of 3/32, and a loop of 1/8 FAI rubber all 20 inches long and strung together with a rubber tensioner to keep 'er in trim for the glide, weighs in at 40.2 grams. No ballast was required, but a trim tab of about 1/2 sq. inch was added to the right wing, bent up about 20 degrees to handle torque. There is about 5 degrees of down thrust and zero side thrust. Trimming this bus was no Sunday school picnic and you will really enjoy your torsion bar landing gear when this crate augers in! The original survived test flights thru mid-winter, so fear not, she will survive some rough handling, and once you get 'er ironed out set your sights on the FAC Thompson Trophy!!!!



SCALEWINDER

REES★INDUSTRIES

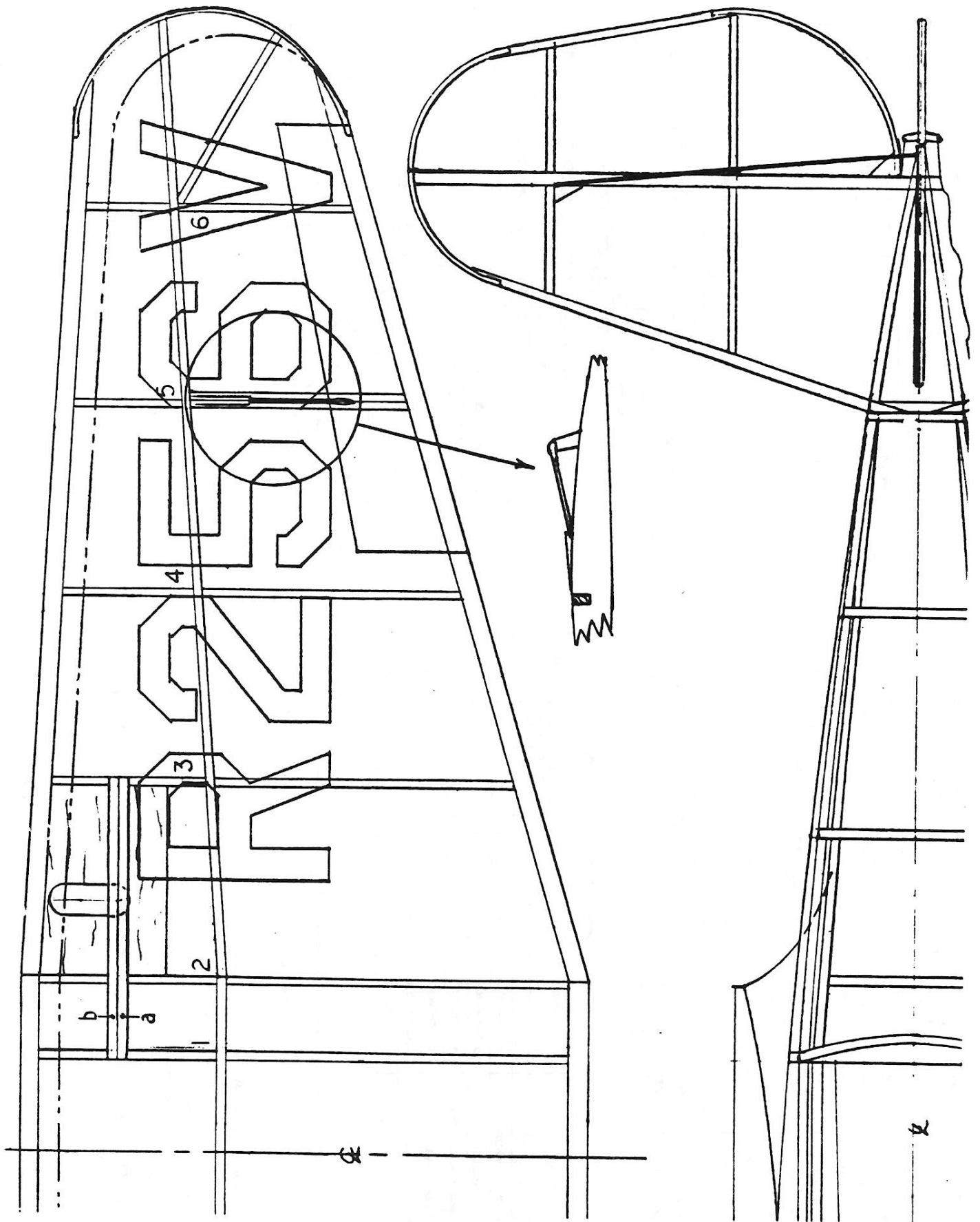
301 Yearling Drive
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Announcing a new winder engineered specifically for free flight scale modelers.

- . 10 to 1 ratio allows you to count in actual rubber turns instead of winder turns.
- . Rated for 6 strands of 3/16 rubber. Let's you fly larger models and still wind them up in the 2 minute time limit.
- . Class 1 precision metal gears and "oilite" bearings for smoothest rotation. You can feel the rubber tension.
- . Minimum number of parts for high reliability and long life.
- . Also useful for non-scale events like P-30, Embryo, and Coupe.
- . Prototypes tested for over 5 years without failure.
- . Left-hand versions available.

\$34.95 plus \$2.00 shipping. N.C. residents include \$1.56 sales tax.

Also available: WINDING TUBES in sets of 4 sizes with wires (3/8", 1/2", 5/8", 3/4" diameter), 16 inches long except 3/8" which is 12 or 14 inches long. One set of 4, \$4.00 plus \$1.50 shipping.



CONTEST RESULTS FOR F.A.C. SCALE

NAME	AIRCRAFT	STATIC										FLIGHT (SECONDS)			TOTAL PTS	PLACE
		1	2	3	4	5	6	7	8	9	10	1	2	3		
ALAN SCHANZLE	SPITFIRE	22	18	9	-	49	7	-	-	-	-	-	-	7	56	8
RANDY KLEINERT	SPITFIRE	15	10	8	-	39	32	31	-	-	-	-	-	32	65	6
KEVIN SHARBONDA	SPITFIRE	19	10	6	-	29	44	106	89	79	108	1	-	-	-	-
BILL BELL	SPITFIRE	28	15	11	-	54	15	29	30	30	84	3	-	-	-	-
MARK HOUCK	SPITFIRE	13	9	6	-	28	22	33	-	33	61	7	-	-	-	-
DOUG BUCHANAN	SPITFIRE	17	10	6	-	33	-	-	-	-	-	-	-	-	-	-
JOHN HOUCK	SPITFIRE	13	15	7	-	35	30	-	-	30	65	5	-	-	-	-
BERT PHILLIPS	SPITFIRE	20	10	8	-	38	28	40	26	40	78	4	-	-	-	-
DAN BRIEHL	SPITFIRE	15	15	6	-	36	-	-	-	-	-	-	-	-	-	-
CLAUDE POWELL	SPITFIRE	15	19	10	-	38	36	34	52	52	90	2	-	-	-	-
GILBERT RENWIT	SPITFIRE	15	10	8	-	33	-	-	-	-	-	-	-	-	-	-

CONTEST RESULTS FOR SPITFIRE MASS LAUNCH

NAME	AIRCRAFT	ROUND ELIMINATED										PLACE				
		1	2	3	4	5	6	7	8	9	10					
FLIGHT A																
KEVIN SHARBONDA	SPITFIRE	X														
BILL BELL	SPITFIRE		X													
RANDY KLEINERT	SPITFIRE			X												3
MARK HOUCK	SPITFIRE				X											2
BERT PHILLIPS	SPITFIRE		X													1
CLAUDE POWELL	SPITFIRE															

CONTEST RESULTS FOR SPITFIRE TARGET TIME

NAME	TARGET TIME (SEC)	ACTUAL TIME (SEC)	DIFF	PLACE
MARK HOUCK	30	24	6	4
JOHN HOUCK	45	15	30	8
KEVIN SHARBONDA	20	21	1	1
BERT PHILLIPS	30	20	10	6
CLAUDE POWELL	35	47	12	7
BILL BELL	20	18	2	2
GLEN SIMPERS	25	34	9	5

CONTEST RESULTS FOR SPITFIRE TRANS-CHAR/NEL NAVIGATION

WIN 2 - KEVIN SHARBONDA!

CONTEST RESULTS FOR SPITFIRE NO CAL

NAME	AIRCRAFT	FLIGHT TIMES (SECONDS)						TOTAL	PLACE
		1	2	3	4	5	6		
SCOTT PAISLEY	SPITFIRE	25	43	47	115	2			
MARK HOUCK	SPITFIRE	19	20	24	63	4			
DOUG BUCHANAN	SPITFIRE	32	60	60	152	1			
ROLF GREGORY	SPITFIRE	35	40	35	110	3			
PAT DAILY	SPITFIRE	18	-	-	18	5			

P-30 ENDURANCE CONTEST - COMSAT

27 JULY 1986

NAME	AIRCRAFT	FLIGHT TIMES (SEC)					BEST 2	PLACE
		1	2	3	4	5		
GLEN SIMPERS	03	88	86	-	-	194	2	
MARV YODER	47	35	-	-	-	83	3	
DOAN SRULL	98	98	120	157	-	277	1	

P-30 MASS LAUNCH CONTEST - COMSAT

27 JULY 1986

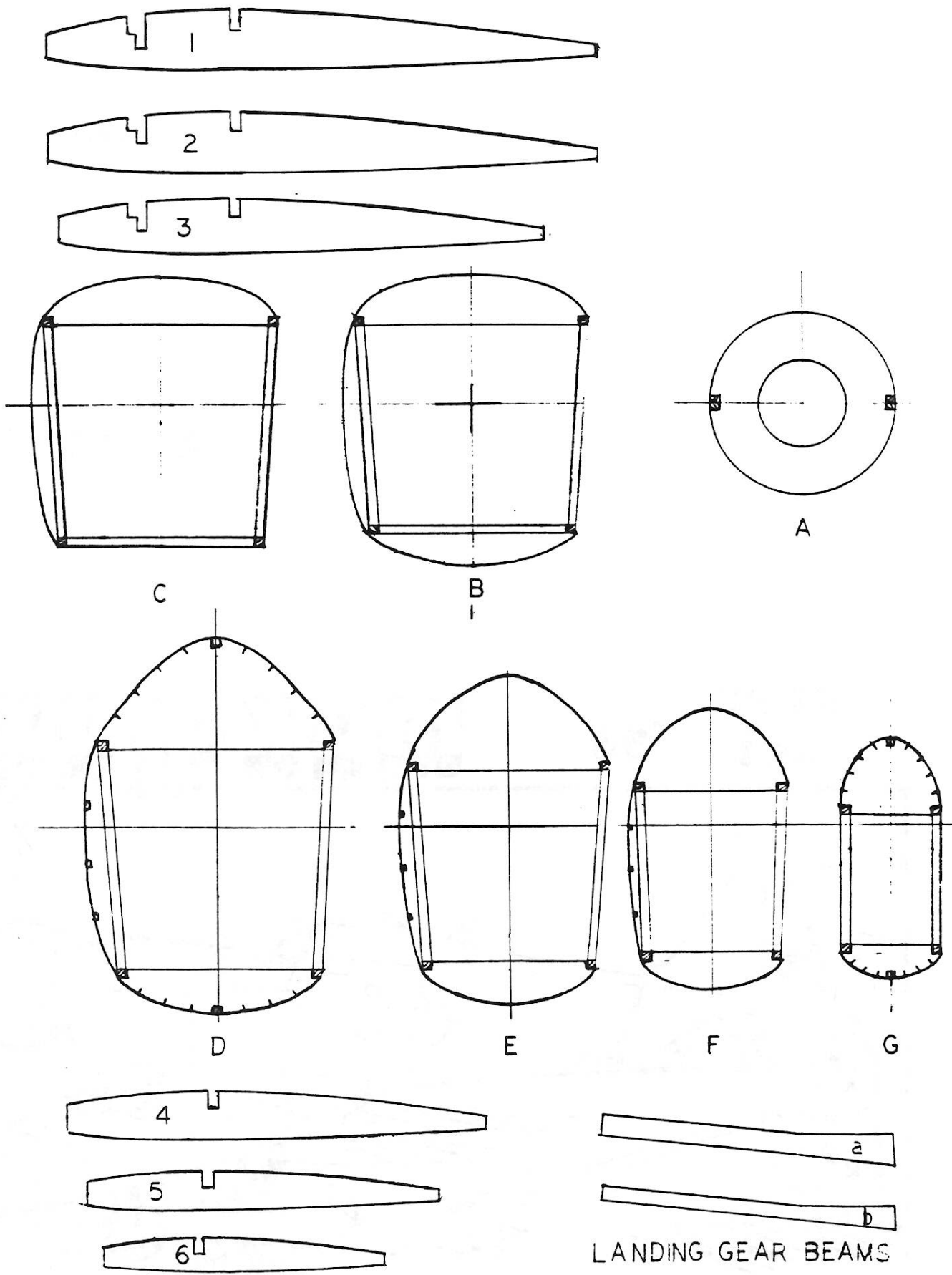
NAME	AIRCRAFT	ROUND ELIMINATED			PLACE
		1	2	3	
GLEN SIMPERS			✓		2
MARV YODER		✓			3
DOAN SRULL					1

HAND LAUNCH GLIDER CONTEST - COMSAT

29 JULY 1986

NAME	AIRCRAFT	FLIGHT TIMES (SEC)						BEST 3	PLACE
		1	2	3	4	5	6		
GLEN SIMPERS		33	40	25	40	42	24	122	1
CHARLIE MAIGERS		22	22	24	27	25	27	83	2

It seems that we made a small omission in the last issue of MAX-FAX. We noted Bill Hannan's book about Autogyros, but failed to give an address for ordering. Try W. C. Hannan Graphics, P.O. Box A, Escondido CA 92025. You're welcome.



FIRST CLASS

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OCT '86

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