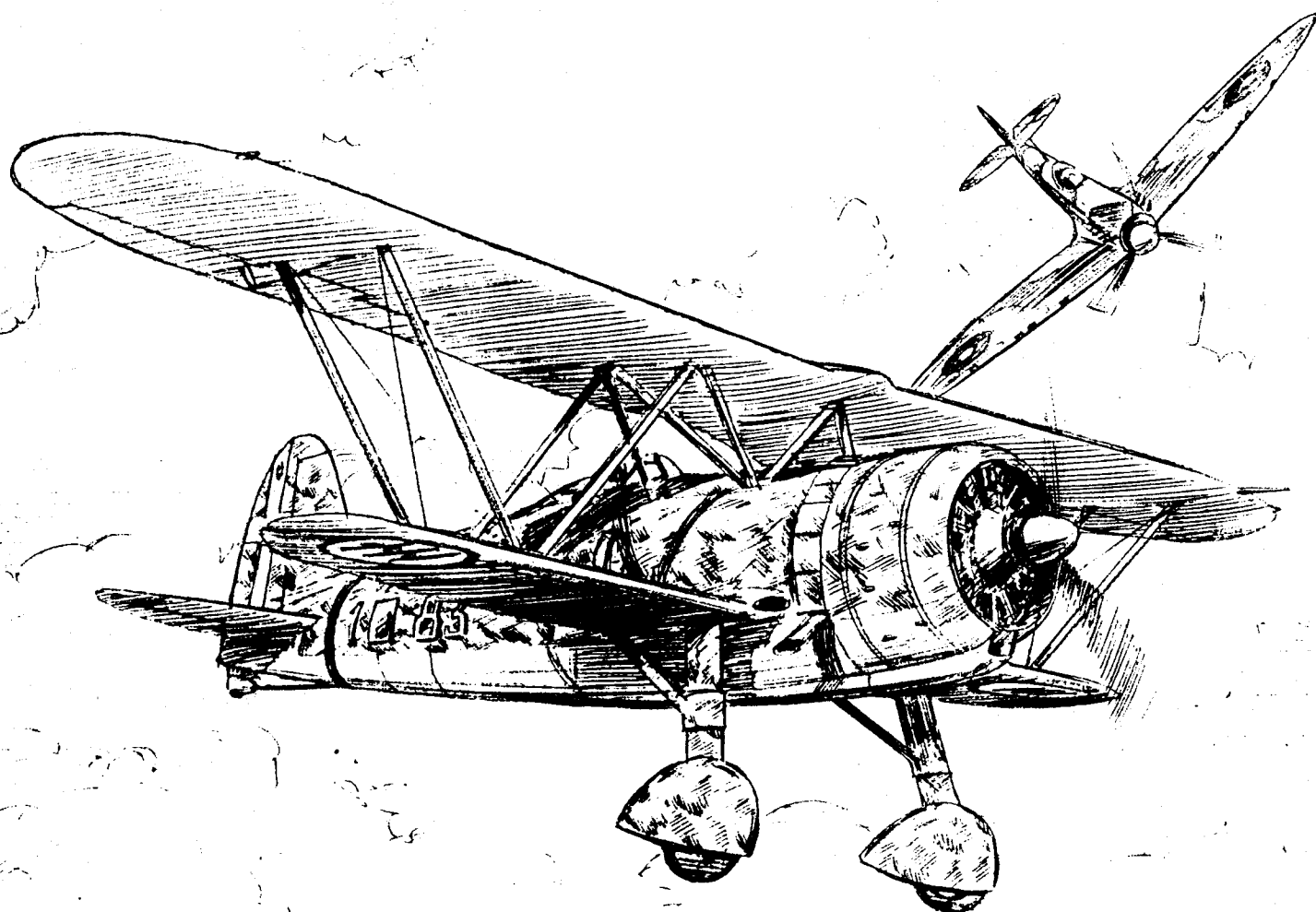


(84)

FLYING ACES

Club News

ISSUE # ~~79-81~~ Jan.-Feb. 1984



B. M. M.



How about that cover, clubsters! Pres Bruning has done it again. Remember in the last issue that I said we had some great plans coming in the "News" this year? Well, here is the first one. When you get to her later in the issue you will want to sit right down at the workbench and start to build her, we'll bet!

The CR-42 was an excellent ship in her class and lasted in service until the end of World War II. She served all around the Mediterranean Sea and the middle east areas. She was able to fight at over 33,000 ft. and had a speed of 274 mph tops. Armed with a 12.7mm and a 7.7mm and racks for two 220 lb bombs under her wings, she was a formidable fighting machine at the outbreak of the war, but as with all of "IL Duce's" plans she was soon out-matched by the "Allied War Machine".

It should be a good flyer. She has a good nose moment for a biplane and there seems to be ample wing area. If any of you skysters build her, please let GHQ know how she goes.

Don't forget the "Big Bash" in Detroit this July, that is the FAC Nats. From the letters we have been getting here at GHQ, this is going to be the most heavily entered one that we have ever had, so get your motel reservations in early as well as the for the banquet, Ralph Kuenz, the CD would appreciate it if you can send in your entry fee for the contest as early as possible so as to save time on the day of the meet. And you won't want to miss the banquet as well, the guest speaker should be terrific, but I won't mention his name yet as I don't know if Ralph has him confirmed as yet. Anyway, I hope to see all of you in attendance. Lets make history with this one!

TO THE GLUE GURU

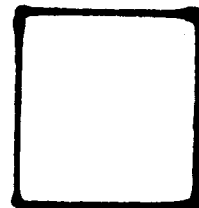
How many turns did they wind into Lindberg's Ryan? More than a thousand? What kind of lube? Can you answer?

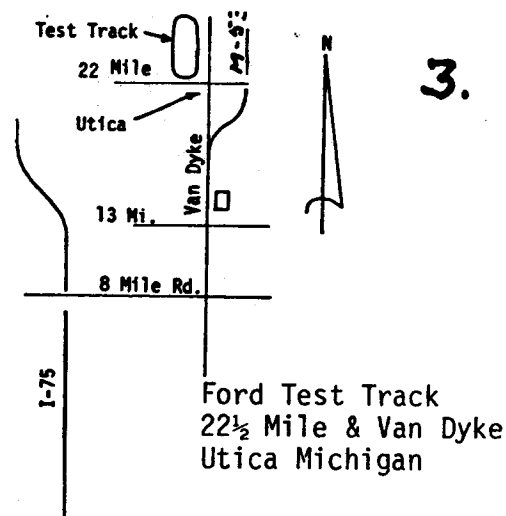
In the big WWI fracas, a german ***** while absentmindedly thinking about his personal Lilli Marlene, wandered into a warming-up fighters prop. His epitaph stated, "He was left with a Pfalz Impression".

Enough!

If the box on the right has an "X" in it, it is time to renew your subscription. This is your last issue under your old subscription. Cost is NINE DOLLARS per year. Six issues, published every other month.

Send your money to; Flying Aces News
3301 Cindy Lane
Erie, Pa. 16506





A.M.A. Sanctioned

Hosted by "Cloudbusters" & Detroiten Geschwader

Saturday July 14 Events 9 A.M. - 5 P.M.

*FAC Scale
FAC Power
FAC Peanut

*Embryo Endurance

WW II Combat - 10:00 A.M.

Golden Age - 1:00 P.M. - Between Wars, Fixed Gear, Over 13", Under Jumbo.

Thompson Trophy - 4:00 P.M. - Radial Engine Racers, Racing Colors 24" Max.

Sunday July 15 Events 10 A.M. - 5 P.M.

*No-Cal
Jumbo

*Full Factor Peanut

Greve Trophy - 11:00 A.M. - Inline Engine Racers, Racing Colors 24" Max.

WWI Dog Fight - 1:00 P.M. Multi Wing Over 13"

WWI Peanut Dog Fight - 4:00 P.M. Multi Wing

Awards - To Third Place All Events

*Denotes Special Hi-Point Jr. Award

Entry Fee - All Events Sr-Open \$10.00 Advance (by 6-15-84)
12.00 on Site
Jr. \$ 4.00

Nats Hq. The Midway Motor Lodge
31800 Van Dyke (just North of 13 Mile Rd.)
Warren Mich 48093 PH. 313 393-2860
\$55/Room w/ Two Double Beds - Mention Flying Aces

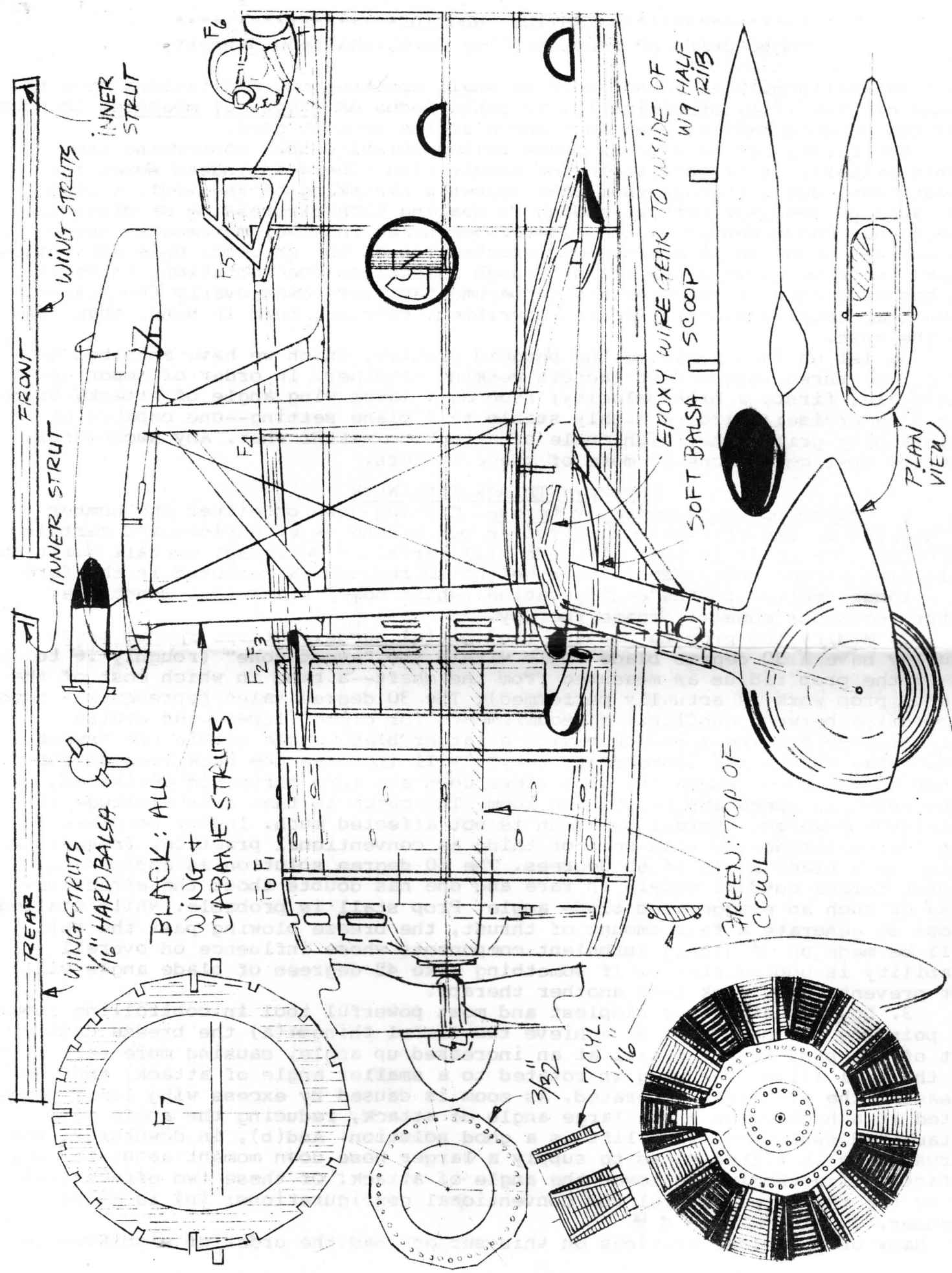
Friday Evening July 13 Hospitality Room at the Lodge

Saturday Evening July 14 F.A.C. Nats Banquet at the Lodge

\$12.00 per person prepaid by 6-15-83
F.A.C. Awards, Kanone Review,
Commander Words of Wisdom,
Presentation/Discussion of Certain Nats Models,
Earl Stahl Perpetual Trophy,
Guest Speaker

Contest Director
Ralph D. Kuenz
14645 Stahelin
Detroit Mich
48223
S.A.S.E. for Rules

Advance Entry &
Banquet Reservations
F.A.C. Nats IV
P.O. Box 129
Birmingham, Mich 48019



Salutations, disciples! Today we shall continue our meditations upon the issue of stability. Specifically, we shall focus on practical measures to counter the phugoid menace, sometimes known as the zoom to doom.

But first, let us address those philosophical doubts concerning the basic suitability of this topic for examination. There is indeed something about model death through zoom that causes a shrinking of the soul, a turning away of the gaze natural enough in dealing with distressing or disgusting phenomena. Consequently in the case of death, as in bowel movements, there is anxiety involved in microscopic examination of the process. Here our philosophy is to vanquish one's fears through relentless confrontation; in order to become strong it is necessary to become familiar--even overly familiar--with that causing disgust. As it is written, better a turd in hand, than two in the bush.

So let us turn again to the phugoid problem, which we have ascribed to (M.J. #8) three independent factors working together. In order of importance these are, first, a high velocity; second, a large wing angle of attack, suited for slow cruise; third, a highly stable tail plane setting--one capable of maintaining grimly that high angle of attack no matter what. Any successful therapy must change one or more of these factors.

Therapy--Things That Work

1. Reduce power, especially torque. Cutting down on either the number of strands or the crosssection of rubber per strand is an obvious and certain solution. The catch is that altitude will certainly decrease. Overall duration will also suffer unless the rubber weight so removed is restored in the form of a longer motor. If the configuration (short nose) prevents a lengthened motor, consider some alternate therapy.

2. Modify the prop to prevent the initial surge. Outdoor rubber props usually have a 30 degree blade angle within the "sweet zone" (roughly .6 to .8 of the prop radius as measured from the shaft--a band in which most of the useful prop work is actually performed). The 30 degree value represents a good compromise between conflicting requirements for climb (lower) and cruise (higher). By carving a new prop with a larger blade angle within the "sweet zone"--say 45 degrees instead of 30--you will increase the back load on the motor to the point where the prop slows down and less thrust is delivered, thus reducing speed and preventing zoom. The catch is that less altitude is obtained; however, overall duration is not affected much. Indoor people--who fear altitude--do this sort of thing as conventional practice, frequently going to a blade angle of 60 degrees. The 60 degree solution as applied to higher torque outdoor models is rare and one has doubts about the effectiveness of such an exaggerated blade angle. Prop stall is probable. While stalled props do generate a fair amount of thrust, the breeze blowing past the tail will be made up of highly turbulent components whose influence on overall stability is unpredictable. If something like 45 degrees of blade angle will not prevent zoom, look into another therapy.

3. Downthrust is our simplest and most powerful tool in controlling zoom. By pointing the nose down we achieve two useful things:(a) the breeze coming out of the prop hits the tail at an increased up angle, causing more tail lift. As the tail lifts, the wing is rotated to a smaller angle of attack, thus decreasing the wing lift generated. As zoom is caused by excess wing lift, generated at a high speed and a large angle of attack, reducing the angle of attack and subsequent wing lift is a good solution. And(b), in downthrust the thrust line is tilted so as to supply a larger nose down moment about the CG, a factor also tending to lower the angle of attack. Of these two effects,(a) is by far the more powerful for conventional configurations; (b) is quite slender. SEE FIGS A & B

Many of the older writings on this subject had the order of significance

BEVEL RIGHT & LEFT

TOP
HALF RIBS
BOTTOM
6 REQ'D.

W8

W2-W5

W1

HOLLOWED Balsa

W0

F7 BLACK RED F8

300-75

FIAT CR 42 MM 7584

F9

WHITE

W9

SEARCH LIGHT MOUNTS HERE

GREY: BELOW THIS STRINGER

S1

S2

S3

1/8"

S4

S5

S6

12 REQ'D.

HALF RIBS

6 REQ'D.

W9

1/16"

T2

T4

T1

T3

T2

T3

T2

T3

T2

T3

T2

T3

T2

T3

T2

T3

T2

T3

T2

T3

T2

T3

T2

T3

* ALL RIBS: 1/32"

WHITE CROSS

T4 R

T4 F

GREY

T3

T2

T1

T2

T3

T2

T3

T2

T3

T2

T3

T2

T3

T2

1/8"

FIAT

22 NOV 83

20 1/2" WING SPAN

backwards, which produced mistaken suggested therapies--such as the widespread 1930's recommendation to employ upthrust on low wing models. No wonder low wings were viewed as difficult! The truth seeped in sometime in the 1950's--beware of earlier stuff.

Downthrust is generally regarded as benign; the consensus is that the cost of downthrust is negligible. The usual argument is based on the small value of actual download imposed by downthrust. It is also easy to show that even a very large angle of downthrust--say 10 degrees--will not reduce the useful component (forward) of thrust significantly.

While this line of reasoning is arithmetically correct, I suspect that something important has been left out and that the true cost of downthrust is quite large.

The difficulty with downthrust is that it persists into cruise, when it is no longer wanted. Reducing the wing angle of attack at the time of initial power surge is a good thing; reducing the wing angle of attack later in cruise produces a high speed shallow descent that succeeds in throwing away some of the altitude so painfully earned.

With a particularly stable Jumbo as a guinea pig (64" MM) I ran a series of dawn flights to check out the cost of downthrust. Upping power beyond a certain point, and employing considerable compensating downthrust, produced a stunning climb indeed, but the climb out was followed by an equally striking shallow descent. The downward trajectory in no way suggested the aftermath of a stall; instead, it seemed a fully controlled and very determined business consistent with a great deal of thrust and very little angle of attack. After 3-5 seconds of such descent, in the course of which 20-30 feet of altitude was lost, the basic power would run down, downthrust effects in turn became small, and a completely new climb mode was initiated.

Every Jumbo I have built has shown this characteristic when operating at full power and large downthrust. While crashes due to this effect are rare (the initial climb offers more than enough altitude to offset the loss), there is a considerable waste of energy and duration occurring here, not to mention wear and tear on the nervous system.

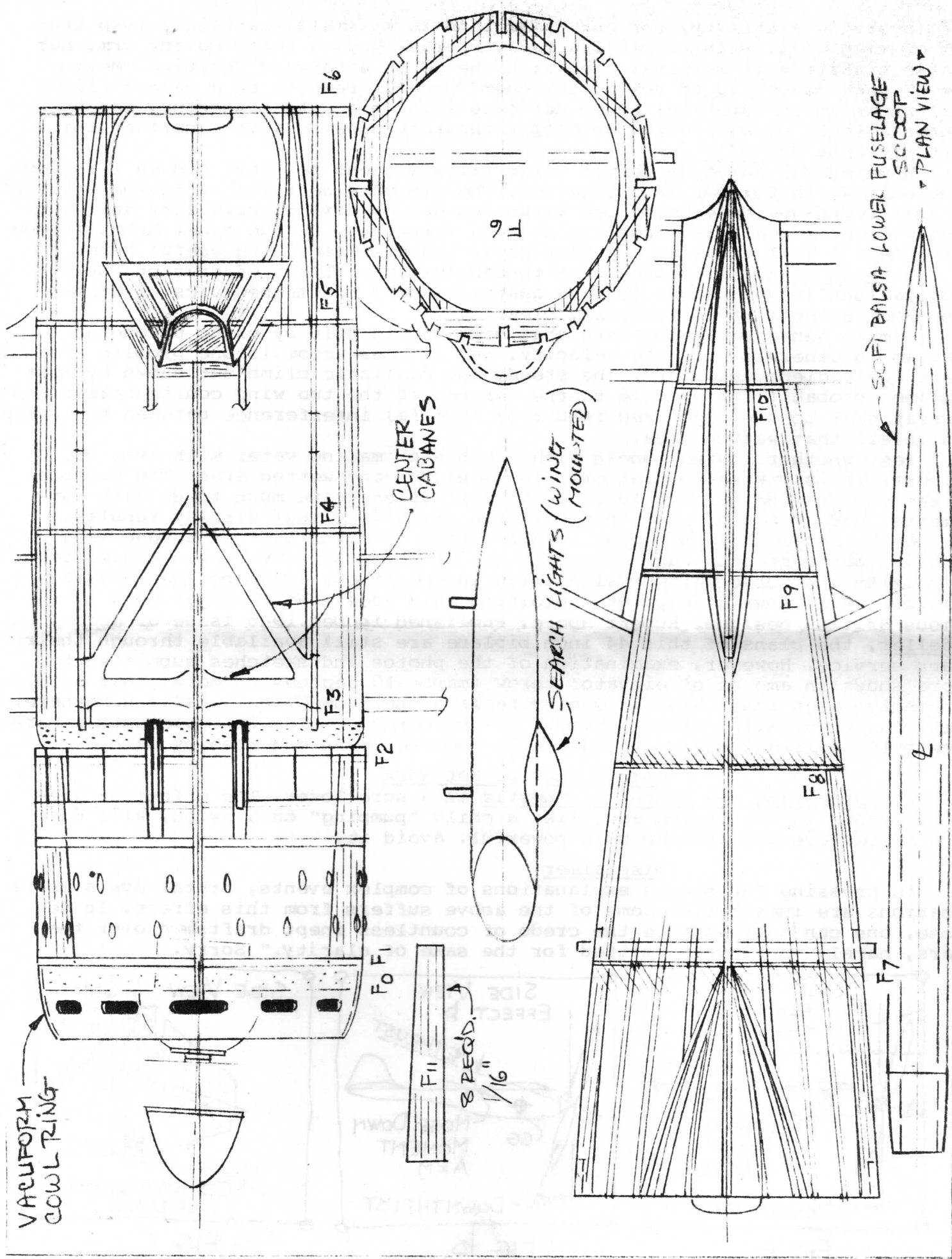
Zaic at this point would probably suggest reducing downthrust and introducing more side thrust to control zoom without downthrust "hangover." Well--yes and no. To those who have good spiral stability, sure. To those who do not (and I rarely do) such advice smacks of "let them eat cake."

What might work is shown in (c). Instead of a fixed angle of downthrust, suppose we had a compression spring that would automatically change the downthrust angle as a function of the motor tension. As the rubber tension falls off, so does the angle of downthrust, becoming zero late in cruise. Would it work? I don't know; it seems right, but I have never tried it. The spring would have to be carefully matched against the motor tension. Should the spring extend too quickly, the result will be a stall.

4. Decreased stability is the zoom solution favored by the performance crowd. The idea is to reduce the determination of the tail to force the wing to fly at a high angle of attack. This may be done by moving the CG back and resetting the tail attitude for a good glide. When properly done, the new "longitudinal dihedral" angle (the difference between wing and tail incidence) will be decreased, resulting in a zoom path of larger radius than that obtained with the old settings. The virtue of the larger radius zoom is that it develops more slowly--in other words, the essential idea here is to buy time.

Given time, two good things can happen. First, the motor output drops to a lower level and the velocity decreases to one that can be handled without extreme zoom. Second, turns can be introduced into the flight path, further reducing lift that might otherwise go into zoom.

Now Jumbo is roughly equal to Wakefield in scale and Wakefield people do this sort of thing as part of their basic trimming procedure--yet, I have never had much luck with it. The catch is that in scale we start with precious



little static stability, for our tails tend to be small--certainly less than 25% of wing area. With so small a tail, operating on a short moment arm, our static stability is marginal even with the CG in a forward position. Moving the CG back beyond 35 to 40% of the chord usually results in a random flight pattern in which the model could not care less as to its trajectory and where either a stall or a dive can develop without provocation. This sort of thing just will not do.

However FAC rules do permit large tails without penalty. And so this procedure is worth further investigation. The ultimate decision as to the utility of this technique depends on the value you set on having scale-like tail surfaces. If true scale is important to you, forget it. On the other hand, if you can accept a tail equal to 35% wing area, there is something useful here.

5. High drag will reduce zoom tendencies. The effect of drag on phugoid oscillations is well known (Durand again)--indeed the mathematics of drag-upon-zoom effects is particularly clear.

Common sense would indicate that drag should help by using up energy that would otherwise go into velocity. And it does--zoom is one problem area where inefficiency pays off. The steady and realistic climb out shown by most biplanes probably owes little to the virtues of the two wing configuration and a great deal to the high drag resulting from (a) interference between the wings and (b) all that wetted area.

Yes, whether flying models with 2 wings or making water with two, er, members, it is unwise to fret over interference and wetted area. The purpose of the undertaking has little to do with efficiency and much to do with fundamental urges. Let us give thanks that a striking visual display results.

6. Variable tail incidence as a function of motor pull or torque is a concept that certainly ought to work. The catch is probably one of mechanical complexity and subsequent unreliability in operation. In Jumbo there has been only one well known attempt at exploiting this idea--the DH Tiger Moth by the famous British designer Rupert Moore. Published in Dec. 1946 issue of Aero-modeller, the plans of this 44 inch biplane are still available through their plans service. However, examination of the photos and sketches submitted by Moore shows an amount of elevator throw (maybe 10 degrees or more) that is disturbingly large and I have an uneasy feeling that something is awry somewhere. Still, for those with guts, this might be the way to go, for it represents a particularly efficient means of countering zoom--a means endorsed by Zaic.

Things That Do Not Work

1. Increasing the moment of inertia is a sure loser. The effect is precisely wrong in its timing and, like a child "pumping" on a swing, will make each successive oscillation more powerful. Avoid it.

Disclaimer

In pressing for simple explanations of complex events, brutal oversimplifications are inevitable. Some of the above suffers from this effect. In defense, one can only advance the credo of countless inept draftsmen over the years, namely "stringers omitted for the sake of clarity." Sorry.

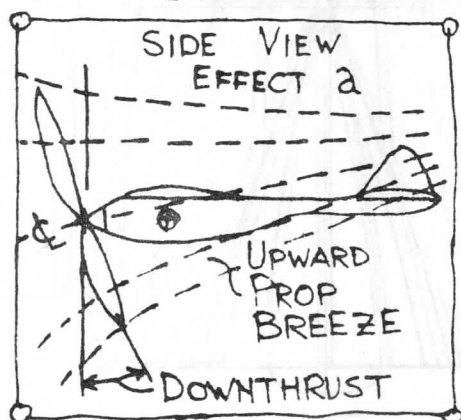


FIG A

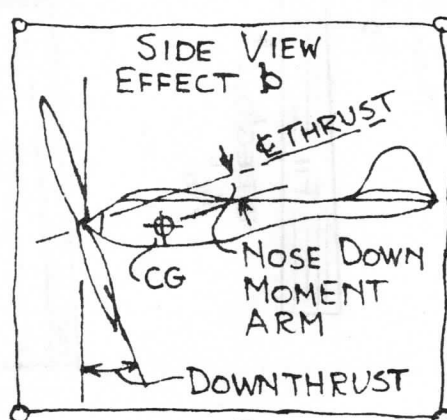


FIG B

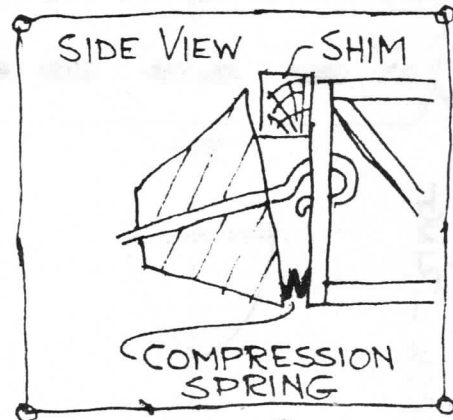
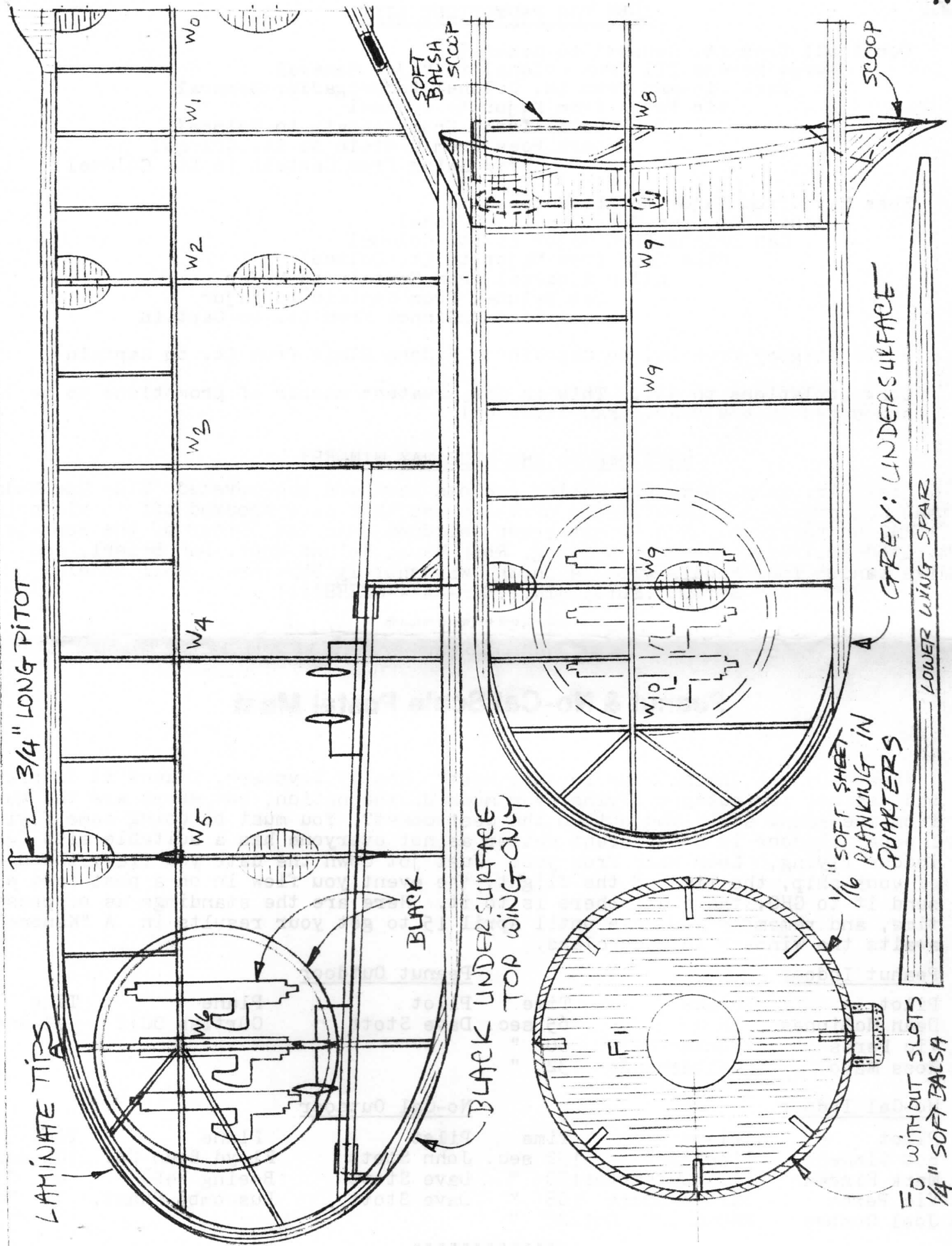


FIG C



1983 FAC PROMOTIONS LIST

Don Srull from Lt. General to General
 George Meyers III from Colonel to Major General
 Mark Fineman from Lt. Colonel to Brigadier General
 Vic Peres from Major to Colonel
 Jack McGillivray from Captain to Colonel
 Dave Rees from Captain to Lt. Colonel
 Fred Ewing from Captain to Lt. Colonel

Ross Mayo from Major to Lt. Colonel
 Roland Hoot from Major to Lt. Colonel
 Dan Briehl from Major to Lt. Colonel
 Mike Zand from Major to Lt. Colonel
 Allen Schanzel from Captain to Major
 Del Balunek from Captain to Major
 Dean McGinnes from Lt. to Captain

Rolfe Gregory from Lt. to Captain John Blair from Lt. to Captain

Congratulations to all. This is the greatest number of promotions to be announced in one year! FAC lives on!

HATS OFF TO THE BLUE MAX WINNERS

Yes Sir, gang, six more daring peelots have won the coveted "Blue Max Medal" that GHQ awards to those heroes of the skies that have knocked off 16 victories in FAC competition. The latest group welcomed into the "Order of the Pour-le-Merite" are; Dave Rees, Fred Ewing, Ross Mayo, Roland Hoot, Dan Briehl, and Mike Zand. Your Medals will be on the way shortly Skysters. Well Done!

BUILD...FLY...WIN...EFF--AA--CEEEE!!!!

Peanut & No-Cal Scale Postal Meet

Where are all the entries in this meet? Really, Skysters, I know it is pretty bad weather for outdoor flying over much of the nation, but where are the guys from the sunny south and out on the west coast? You must be doing some flying, I hope. Indoor is a different matter as not everyone has a suitable site for indoor flying. Lets hear from you. Just jot down the date you flew, the name of your ship, the time of the flight, the event you flew in on a post card and send it to GHQ, thats all there is to it. Here are the standings as of press time, and remember you have until April 15 to get your results in. A "Kanone" awaits the winners in each class.

Peanut Indoor

Pilot	Plane	Time
Dean McGinnes	IS-4	65 sec.
Vic Peres	Fokker D-7	60 "
Ross Mayo	Halberstadt	32 "

Peanut Outdoor

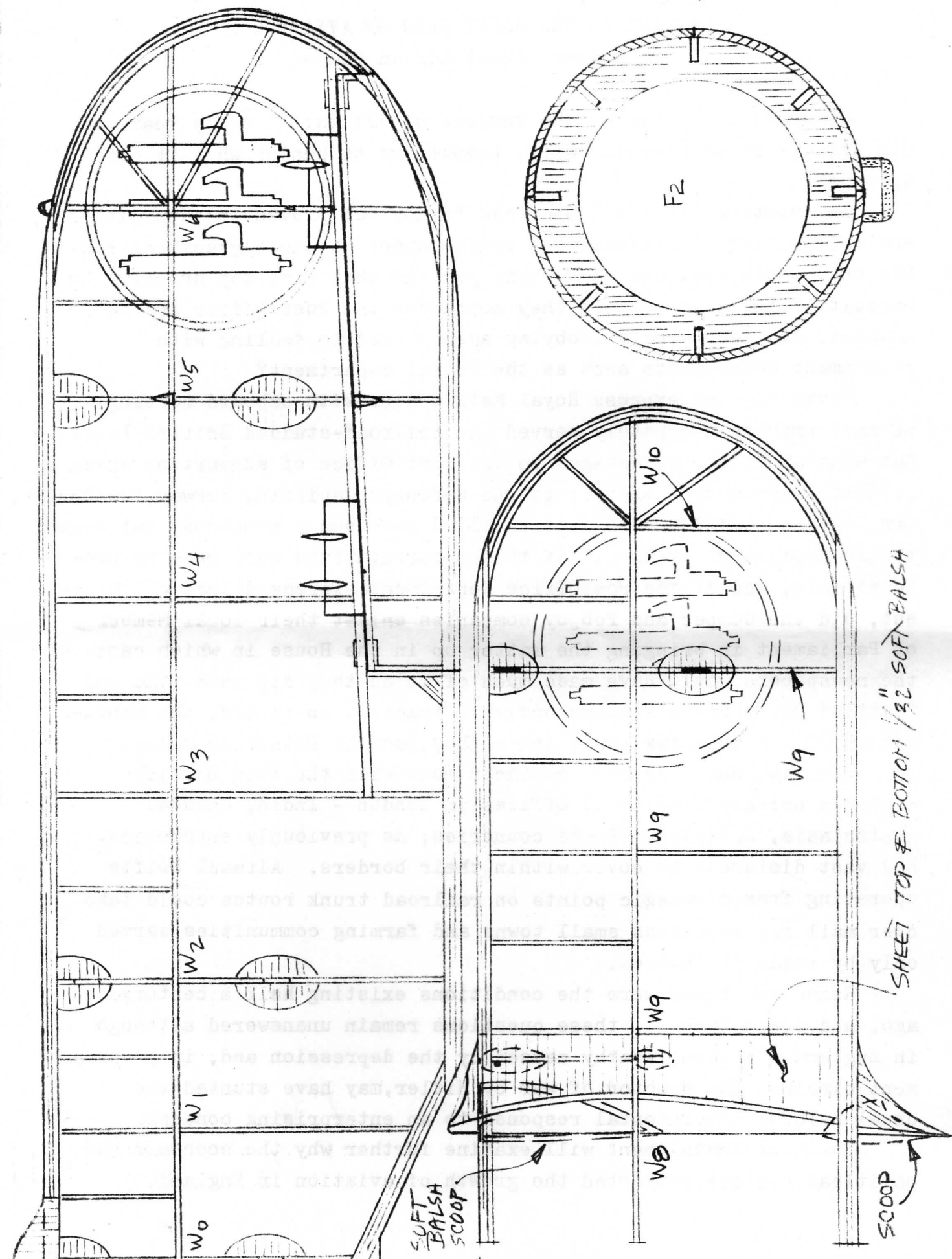
Pilot	Plane	Time
Dave Stott	Curtiss OC-2	43 sec.

No-Cal Indoor

Pilot	Plane	Time
Bob Clemens	Tipsy Jr.	132 sec.
Mark Fineman	Pilatus Porter	130 "
Vic Peres	Farman Sport	108 "
Joel Combee	RWD-6 (JR. Ent.	25 "

No-Cal Outdoor

Pilot	Plane	Time
John Stott	Floyd Bean Sp.	101 sec.
Dave Stott	Boeing F4B4	47 "
Dave Stott	Luscombe Phant.	34 "



LIVING IN THE EARLY DAYS OF AVIATION

By Colonel (Hon) Adrian Comper

Commenting further on the subject of "Flight's" fifty year old article on an Airmail Swift, tempts one to ponder why it came to nought.

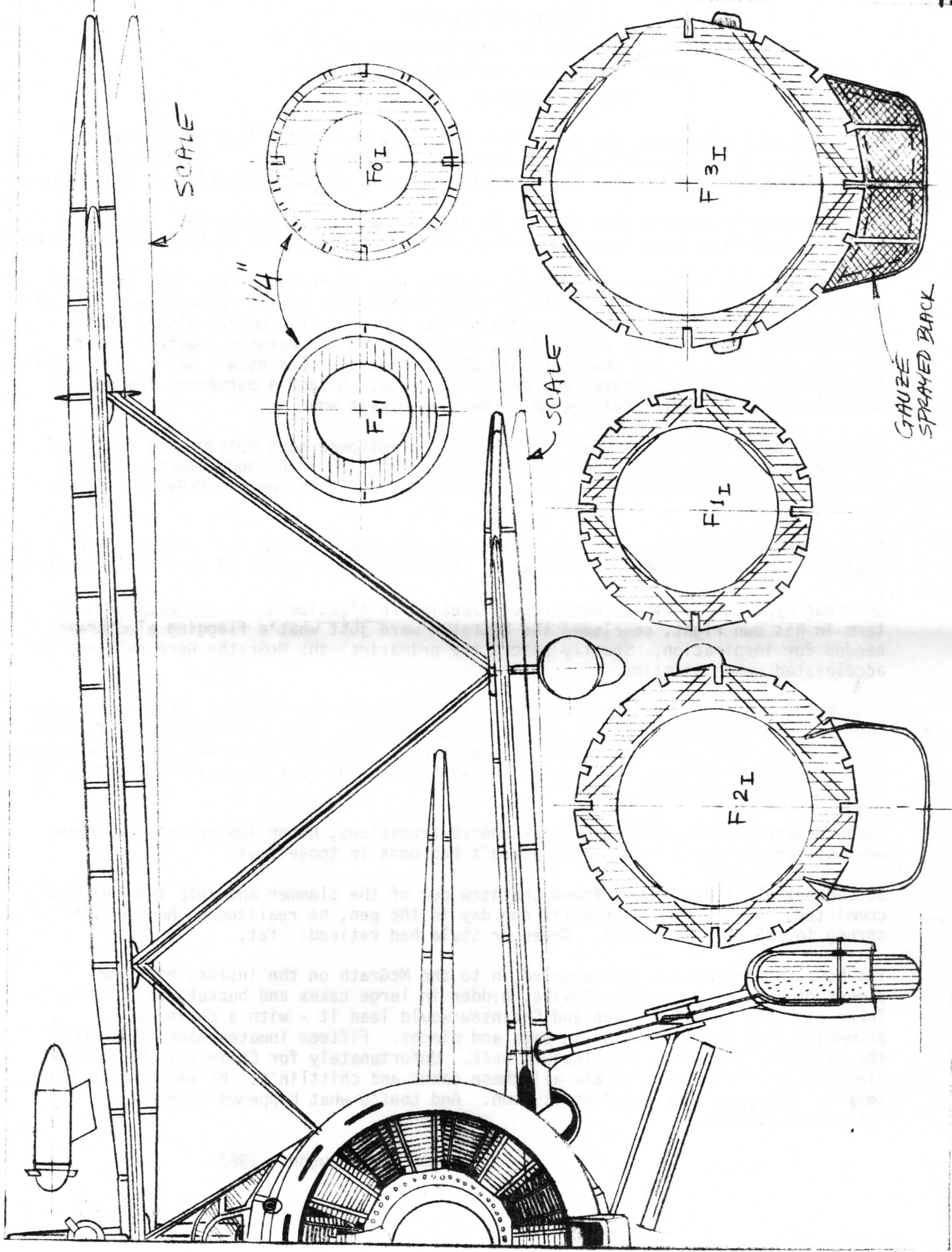
In aviation circles Comper and Pobjoy had proven the sturdiness and reliability of airframe and engine under the most gruelling conditions. Both were men of vision; yet did they give top priority to pursuit of the concept? If they contacted the Post Office and got nowhere, did they seek a lobbying agency used to dealing with government departments such as the Postal department?

Obviously the express Royal Mail trains with onboard sorting of mail enroute adequately served the railroad-studded British Isles. But what about the advantages to the Post Office of supporting cheap airmail service from England to the European Capitals, Norway, Sweden, Denmark and some Balkan States - all as previously mentioned but some thousand miles or so away. If these representations were made by professionals, and if the PostOffice Department expressed lack of interest, did the Comper and Pobjoy companies enlist their local Member of Parliament in bringing the matter up in the House in which case the newspapers would have made much of it as they did each time the "little" Swift broke some record or attracted, as it did, the approbation of the then ~~the~~ young and highly popular Prince of Wales.

Finally, were vigorous contacts made with the then British Empire's principal Colonial Offices in London - India, Canada, Australasia, S. Africa? These countries, as previously emphasized, had vast distances to cover within their borders. Airmail Swifts operating from strategic points on railroad trunk routes could take over mail for countless small towns and farming communities served only by roads and busses.

Remember, these were the conditions existing half a century ago, and since then all these questions remain unanswered although in England a general apathy caused by the depression and, in government circles, the specter of war by Hitler, may have stunted the usual helpful governmental response to an enterprising concept.

The next installment will examine further why the economic and political climate detracted the growth of aviation in England.



WHERE ARE THEY NOW

Vignettes of what happened to
those famous model builders of the 1930's

Chainsaw McGrath - Runner-up

Myron McGrath, of course, was not called "Chainsaw" in 1934. Then it was "Hogs" McGrath, one of the terrible McGrath brothers of Calhoun County. Hog's brother was called "Hooch". Hogs and Hooch pretty well sums up the activities of the McGraths.

When Chainsaw discovered down-thrust, he joined the Calhoun County MAC. His model building techniques were ingenious and as meticulously executed as his contest strategy.

As a contestant, Chainsaw was affable; he was also scurrilous. His long string of second places was mostly the result of flim-flamming his timers' attention away from his hastily decending model, then pointing the timer toward someone else's ship a hundred feet higher. This worked fine, since most of the outdoor tractors looked the same. Trouble ensued when the only ship higher than Chainsaw's was a twin pusher. Disgruntled contestants protested, and fist flights became a permanent feature of Calhoun County contests that season. Chainsaw always won.

Chainsaw machine-gunned his way into national prominence next season as a member of the famous McGrath gang who pulled the biggest bank job in Calhoun County. It was also the most unsuccessful bank job in Calhoun County - the entire McGrath gang was quickly captured.

Then, Calhoun County MAC took back Chainsaw's Sportsman of the Year trophy. For Chainsaw, the future looked as gloomy as the bottom of a bucket of last week's chittlin's.

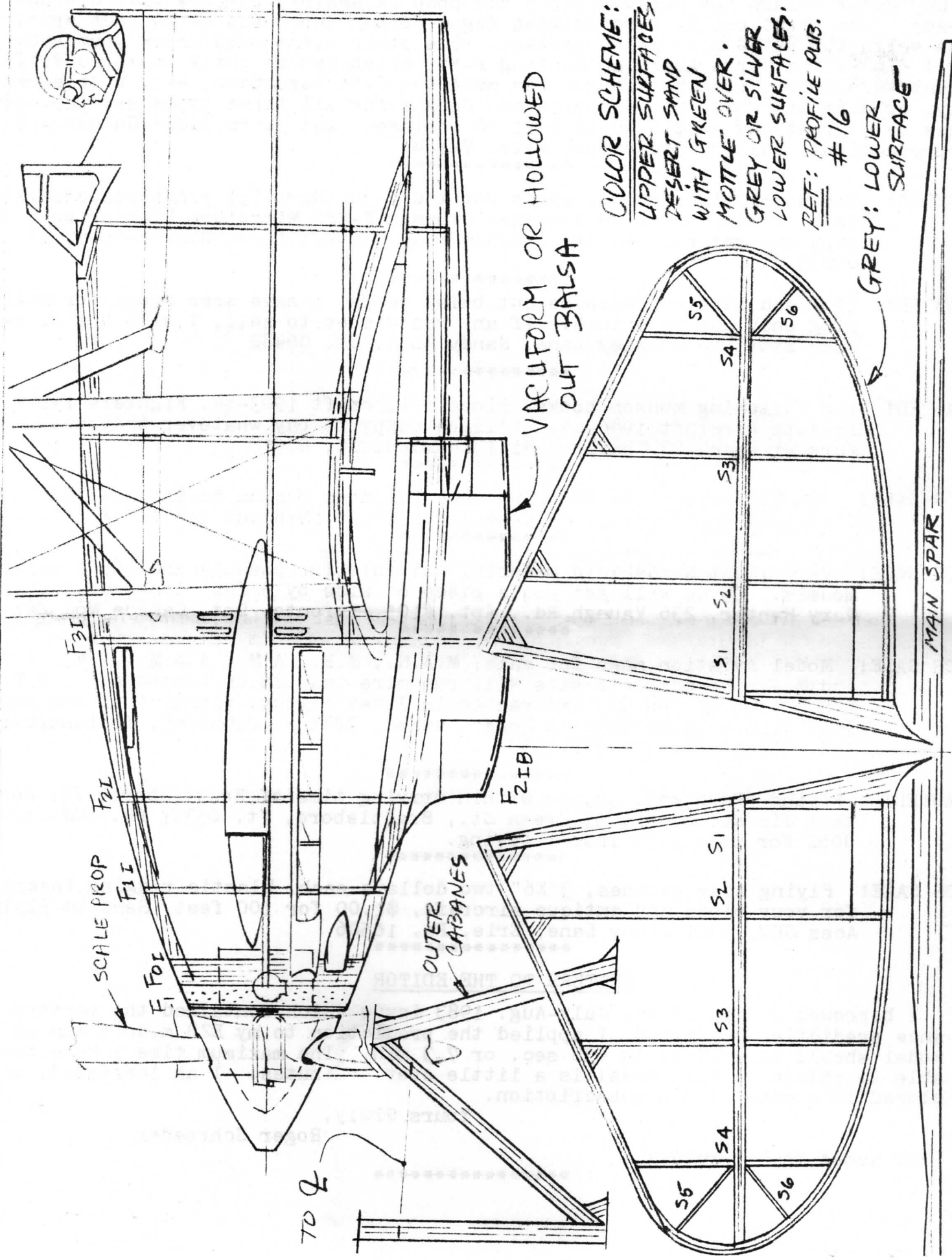
Governor Byrd Caidge Stule, desperately seeking re-election to an unprecedented third term in his own right, concluded the McGraths were just what a flagging electorate needed for inspiration. Shortly before the primaries, the McGraths were released for accelerated rehabilitation.

Chainsaw found the campaign trail a natural outlet for his talents. These were soon emulated by campaign committees throughout the nation. (You will usually find these listed under that great euphemism, "leadership".) Governor Stule was easily re-elected with one of the smallest voter turn-outs within memory. But Chainsaw had difficulty grasping the election was over.

Since Governor Stule practiced time-honored traditions, he no longer knew Chainsaw, who was sent up for 3 - 5; which weren't bad odds in those days.

Subsequent elections always found Chainsaw out of the slammer and into the campaign committee. This worked fine until one day in the pen, he realized he hadn't been sprung for several elections. Governor Stule had retired: fat.

The McGraths on the outside smuggled in to the McGrath on the inside, bits and pieces of a new labor-saving device, hidden in large cakes and buckets of chittlin's. There would be a prison break and Chainsaw would lead it - with a chain saw assembled from those smuggled-in bits and pieces. Fifteen inmates made it through the carefully planned and chainsawed exit. Unfortunately for Chainsaw, the careful planning was done before he ate all those cakes and chittlin's; he was now too fat to fit. The name "Chainsaw" stuck, too. And that's what happened to Myron "Chainsaw" McGrath.



COLOR SCHEME:
UPPER SURFACES
 DESERT SAND
 WITH GREEN
 MOTTLE OVER.
 GREY OR SILVER
 LOWER SURFACES.
REF: PROFILE PUB.
16

GREY: LOWER SURFACE

Hey gang! Golden Age Reproductions has done it again! Two new kits are now ready. The first one is a redesigned Megow Corben Super Ace at 24 inch span, she sells for \$7.50 plus \$1.50 postage. The other kit should knock your eyes out! It is the North American Mustang P-51, which can be built in three different versions. From the kit you can make the P-51 Razorback, P-51 bubble canopy, or a racing version. Canopies and decals for all three types are included. This is a great buy at \$10.00 plus \$1.50 postage. Get yours from; Golden Age Reproductions, Box 13, Braintree, Mass. 02184.

WANTED! Miniature Aircraft Co. plans for the P-36 (Hawk 75) 1 inch scale as kit-ted. I will trade an original Grumman F-3F2 Miniature Plan or buy, or copy and return. George Armstead, 89 Harvest Lane, Glastonbury, Ct. 06033.

WANTED! Five and six inch machine cut balsa props. I have some props for swapping only, 4 $\frac{1}{2}$ to 9 inch. If any one wishes to sell, I will buy or swap. John Stott, 8 Bradley Lane, Sandy Hook, Ct. 06482

WANTED! The following Munson books; Pioneer Aircraft 1903-14, Fighters 1919-39, Private Aircraft 1946-67. I'll be happy to pay whatever they cost. Mark Fineman, 73 Charlton Hill, Hamden, Ct. 06518

FOR SALE! Jim Miller will be bringing some building boards to the meet in Cleveland on Feb. 19. They sell for \$3.00 each and are 16" X 21".

FOR SALE! Very light windshield material suitable for peanuts and other small models. \$3.00 will get you a piece 6" wide by 3 feet long. Good stuff. Gary Hunter, 236 Vaughn Rd., Apt. #105, Toronto, Ont. Canada M6C 2M7

FOR SALE! Model aviation mags for sale; M.A.N., M.B., A.M., A.A.M., F.M., A.T., and M.A. No complete sets will run more than \$5.00 except A.M., A.T., M.B. Also if you are interested in Jetex flying, plans, fuel and engines send a large SASE to Roger Wathen, 3242 N. DeQuincy, Indianapolis, Ind. 46218 Ph. 317-547-5963

WANTED! Flying "Buddies", anyone within driving time of Brattleboro, Vt. contact Jim Woolnough, 53 Green St., Brattleboro, Vt. 05301 Ph. 802-257-0062 for some good indoor flying.

FOR SALE! Flying Aces patches, 3"X6" two dollars each. Elastic rigging thread for your pipes and antique aircraft, \$1.00 for 100 feet. Send to Flying Aces GHQ, 3301 Cindy Lane, Erie, Pa. 16506

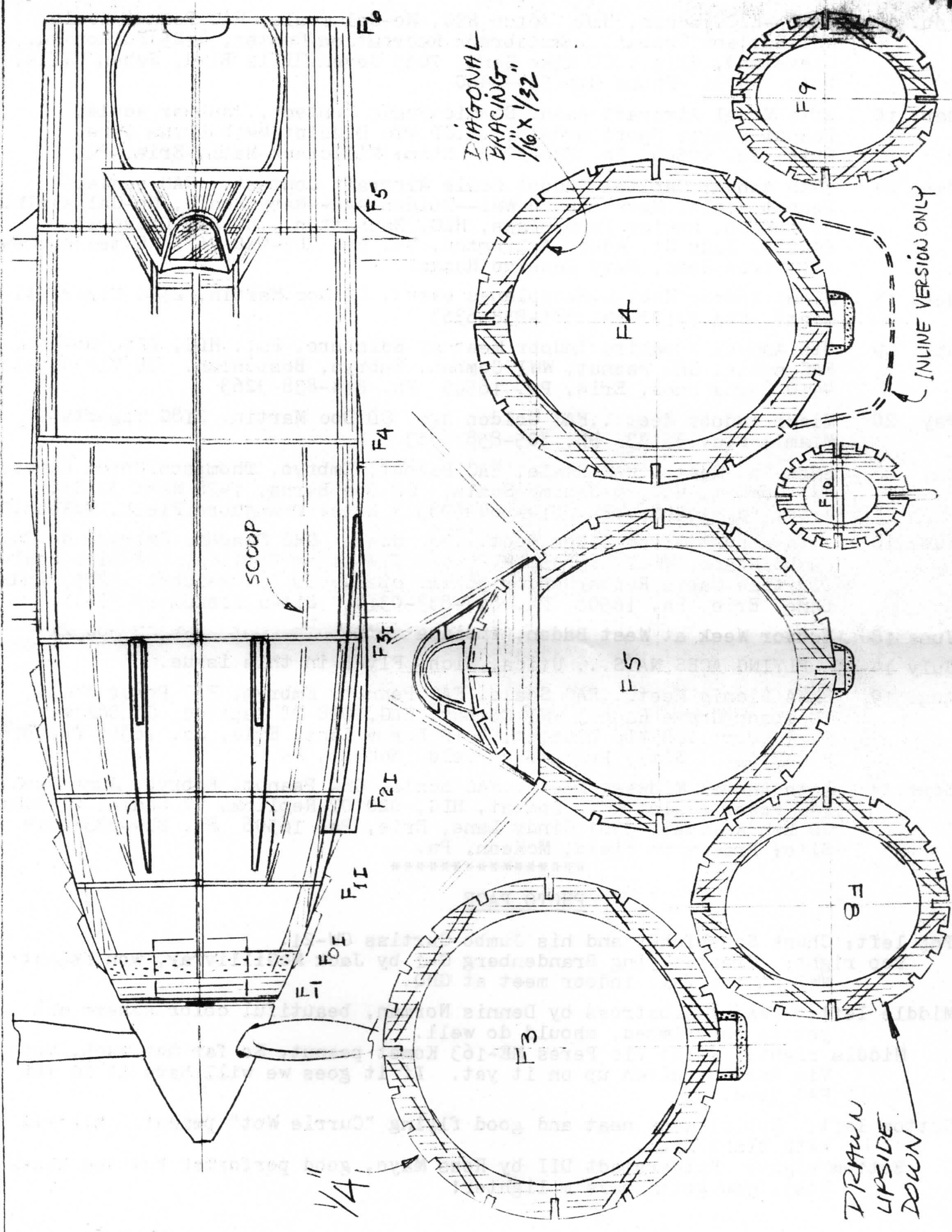
LETTERS TO THE EDITOR

I borrowed a copy of the July-Aug. 1983 issue which contained the performance prediction on page 6. I applied the prediction to my EZB model and my model should be able to do 438 sec. or 7.3 min. The maximum time I have been able to obtain on this model is a little over 7 minutes. I am impressed, enclosed is a check for a subscription.

Yours Truly,

Roger Schroeder

(How about that Guru?)



CONTEST CALENDAR

- Feb. 19 CFFS--EZB, Scaps, HLG, Jetco ROG, No-Cal scale, FAC Peanut scale, WWI Biplane Combat....Estabrook Recreation Center, 4125 Fulton Rd. Cleveland, Ohio...CD Mike Zand, 7055 Seven Hills Blvd, Seven Hills, Ohio 44131 Phone 216-524-3480
- Mar. 10 Erie Model Aircraft Assn. Static Scale Contest...Rubber scale, Peanut scale, Sport models,....CD Vic Didelot 4410 Lorna Lane, Erie, Pa. 16506 Ph. 838-3263 Site; Millcreek Mall, Erie, Pa.
- Mar. 24 10th Annual Capitol Indool Scale Aircraft Contest...FAC scale, Peanut scale, Mass Launch WWI--Golden Age--Navy Scale, No-Cal scale, Bostonian, Novice Pennyplane, HLG, Manhatten...CD Dan Driscoll 2000 S. Eads St. #301, Arlington, Va. Ph. 703-920-7671 Site; Andrews Air Force Base, Navy Reserve Hangar.
- Mar, 18 Miami Indoor Meet...Raceplanes event, CD Doc Martin, 2180 Tigertail Miami, Fla.33133 Ph. 305-858-6363
- Apr. 29 8th Annual Snowbird Indoor Meet at Edinboro, Pa...HLG, EZB, No-Cal, FAC scale, GHQ Peanut, WWI Combat, Embryo, Bostonian, CD Vic Didelot 4410 Lorna Lane, Erie, Pa. 16506 Ph. 814-838-3263
- May 20 Miami Indoor Meet...FAC Golden Age, CD Doc Martin, 2180 Tigertail Miami, Fla. 33133 Ph. 305-858-6363
- May .27 EMAA-FAC Meet...FAC Scale, FAC Peanut, Embryo, Thompson/Greve Races, WWI Combat, HLG, Old-time Scale, CD Joe Barna, 1428 West 32 St. Erie, Pa. 16508...Ph. 814-864-6933 Site; Prangmore Field, McKean,Pa.
- June 10 13th Annual Great Lakes Meet...FAC Scale, GHQ Peanut, Embryo, No-Cal, Jumbo Scale, WWII Combat, HLG, 020 Old-timer Replica, Old-time Scale, Old-time Cabin Rubber under 36 in. span...CD Lin Reichel 3301 Cindy Lane, Erie, Pa. 16506 Ph. 814-833-0314 Site; Prangmore Field.
- June 18 Indoor Week at West Baden, Indiana
- July 14-15 FLYING ACES NATS... Utica, Mich. Flyer in this issue.
- Aug. 19 EMMA Picnic Meet...FAC Scale, FAC Peanut, Embryo, FAC Power Scale, Thompson/Greve Races, WWI Combat, HLG, 020 OT Replica, OT Scale, OT Rubber...CD Vic Didelot, 4410 Lorna Lane, Erie, Pa. 16506 Ph. 814-838-3263 Site; Prangmore Field, McKean, Pa.
- Sept.23 15th Annual Midwest Meet...FAC Scale, GHQ Peanut, Embryo, Jumbo scale, FAC Power Scale, WWII Combat, HLG, 020 OT Replica, OT Scale, OT Rubber CD Lin Reichel, 3301 Cindy Lane, Erie, Pa, 16506 Ph. 814-833-0314 Site; Prangmore Field, McKean, Pa.

PHOTO PAGE

Top left; Chuck Schobloher and his Jumbo Curtiss CW-21.

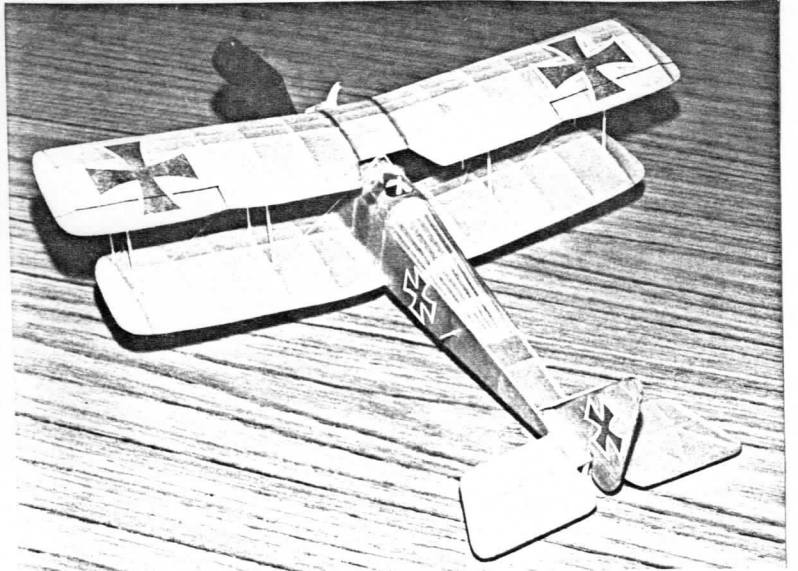
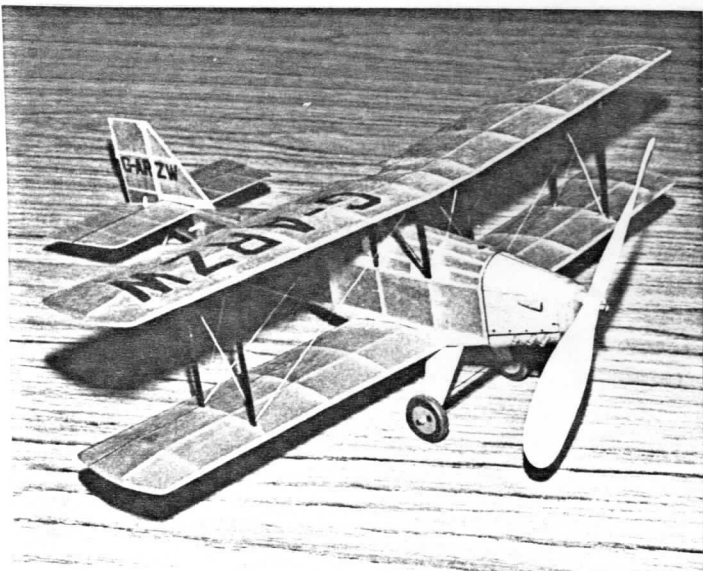
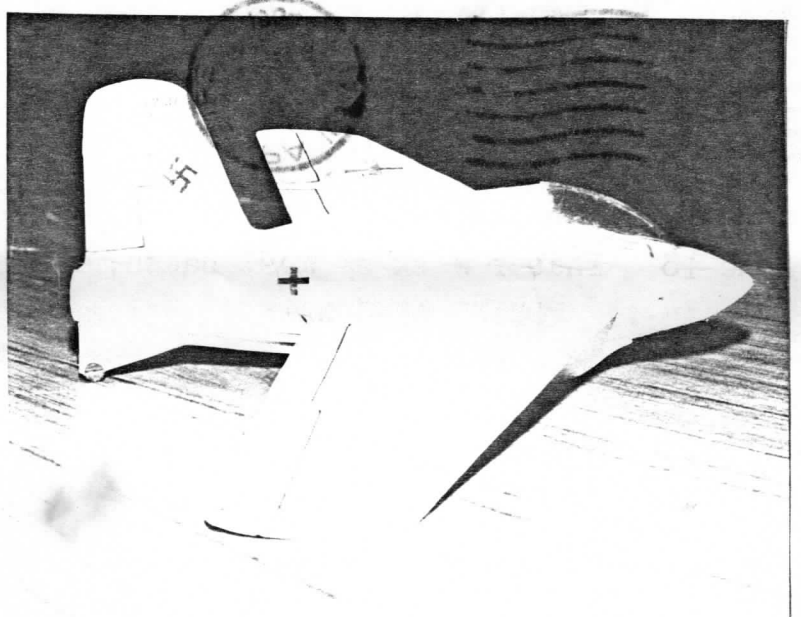
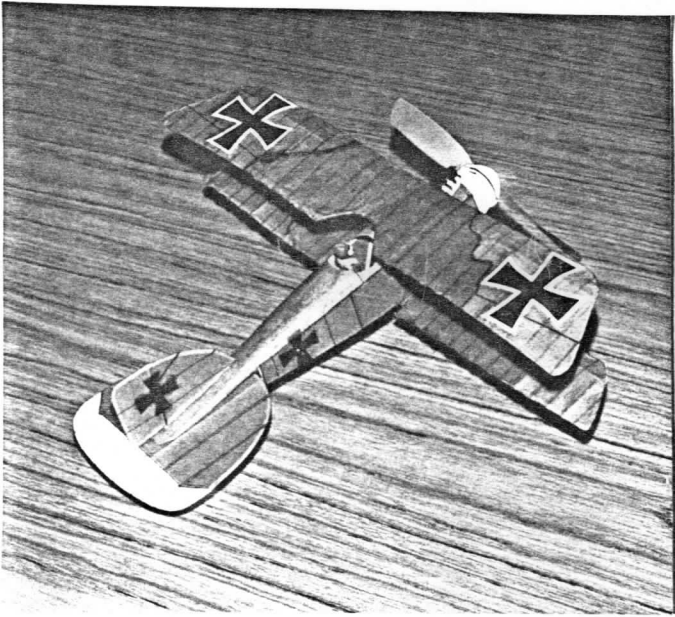
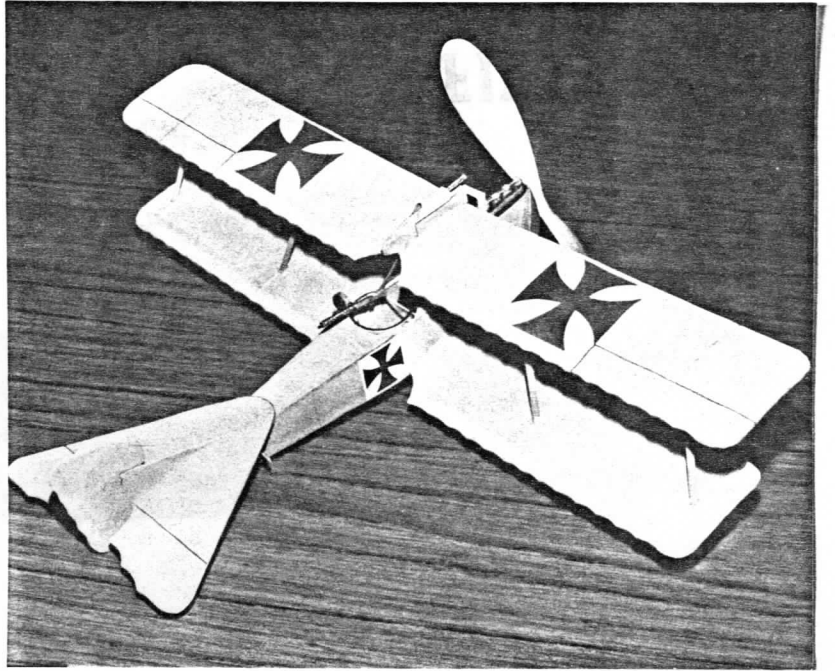
Top right; Great flying Brandenburg C-1 by Jack McGillivray, won Peanut WWI at the fall indoor meet at GHQ.

Middle left; Peanut Albatross by Dennis Norman, beautiful color scheme and yet to be trimmed, should do well.

Middle right; Wild! Vic Peres ME-163 Komet peanut. So far not much, but Vic has not given up on it yet. If it goes we will have it in the FAC News.

Bottom left; Bob clemens neat and good flying "Currie Wot" peanut. All red with black trim.

Bottom right; Halberstadt DII by Ross Mayo, good performer but too heavy Ross, you gotta make'm lighter!



FIRST CLASS

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66A



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