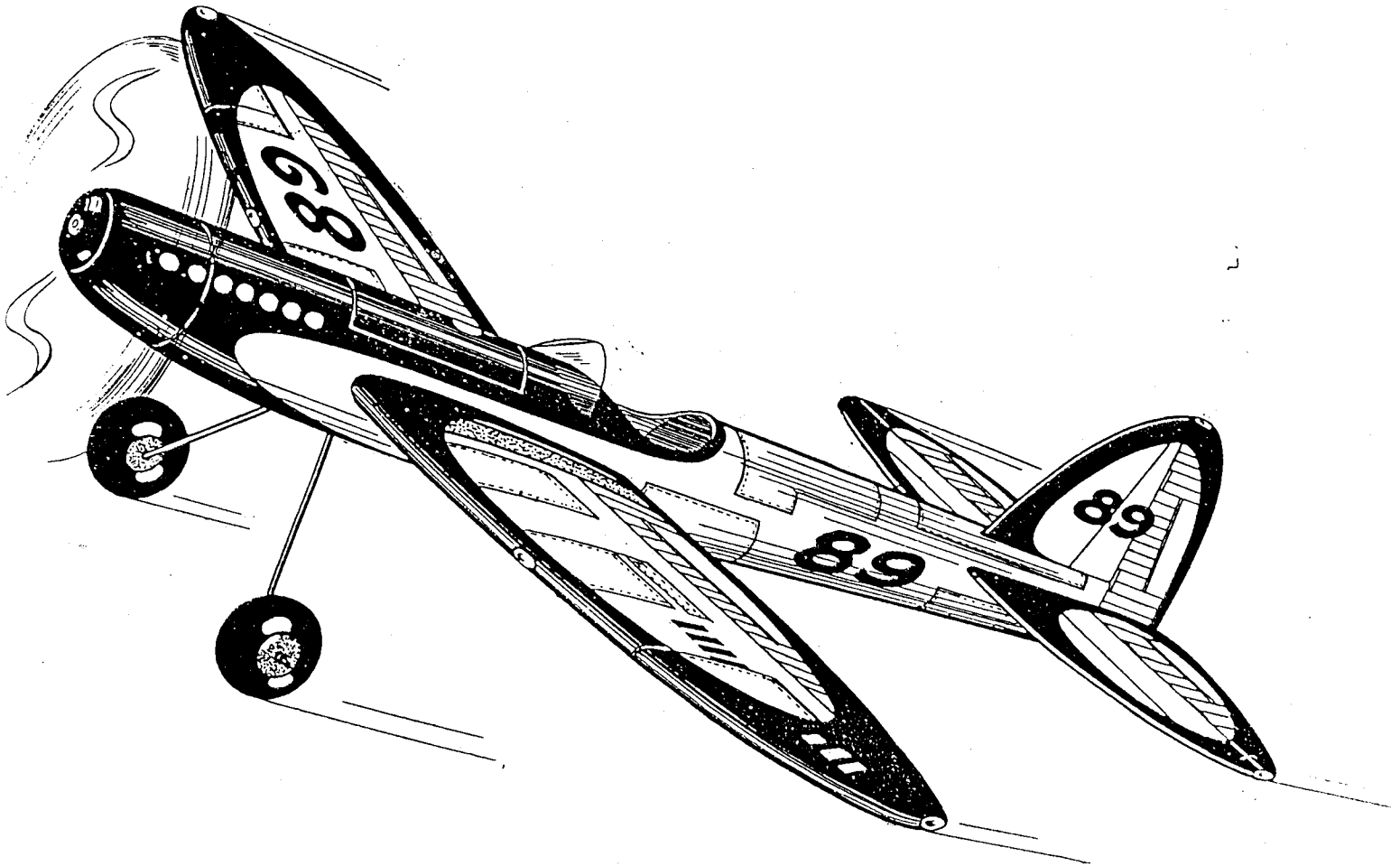


# FLYING ACES

Club News

ISSUE NO. 251-177 Jan./Feb. 2010



# NEWS ON THE WING!

For several months I have been making a list of pertinent clichés to help introduce the new 2010-2012 FAC Rule Book. I have decided to bag those gems for another approach thanks to a recent article in *TIME MAGAZINE*.

George Romney, one time president of American Motors once said, "There is nothing more vulnerable than entrenched success."

Well, we know what happened to AMC and we all see what's going on with the Big Three currently.

And that is what *this* article and the new rule book is all about...change.

Yes, the FAC should not remain static in this day and age or we may very well be doomed by our own PAST success.

But, nor should we rocket head first into the future without consideration of our past and traditions. That's what makes us different and unique. That's what makes us Family and not Fortune 500.

Having said that, here is a list of email addresses for members of the GHQ Council:

Ross P. Mayo: ghqfac@verizon.net

Pete Azure: pazure@att.net

Roy Courtney: rcourt2493@aol.com

Vance Gilbert:

vanceflite@earthlink.net

Fred Gregg: loopy.cbfac@yahoo.com

Mike Isermann: balsabug@gmail.com

Ralph Kuenz: rdkuenz@yahoo.com

Stew Meyers:

stew.meyers@verizon.net

Jack Moses: jackmss@att.net

Tom Nallen:

tom.nallen@verizon.net

Tom Nallen II: tomnallen2@yahoo.net

Mike Nassise: mnceann@aol.com

Bob Schlosberg:

bobschlosazf.f@cox.net

Mike Welshans:

mbwelshans@aol.com

George White: white76@cox.net

So if you have access to e-mail and have an FAC issue, feel free to contact any one of the Council members. They will gladly assist you.

More proof that the FAC is moving forward...I am working on establishing an official FAC web site. If you are interested and knowledgeable in hosting such a site, please contact me with your qualifications for more information.

And as I wrote in the last issue...please read the rule book. It has been re-formatted for easier referencing. Some of the changes were mentioned in the last issue, but many more were not as they had not been nailed down...especially bonus points in FAC Rubber and FAC Power Scale.

Tie breaking for events that are the total of three flights has a new option. It's an "auto-fly-off" procedure that should help eliminate delays in determining final standings. It was used recently at WESTFAC without a hitch. Check it out.

The BLUR is now an official event of the FAC. The rules in black and white should help any club add it to their schedule of events.

The "Mr. Mulligan" is now permitted in the Thompson Race and the BLUR.

This rule book will be in effect for the next two years. GHQ will watch for trends and will keep an ear open to the membership. If changes are needed for 2013 we will not stand on "entrenched success."

Moving on with other news! I recently returned from the Barron Field Air Races at Wawayanda, NY. Congratulations to Tom Hallman, John Houck and the rest of that crew for ten years of FAC flying and camaraderie at one of the most unique flying sites I've ever been to...to date.

I thought my eight hour drive was grueling until I was greeted by Ronny Gosselin and Luc Martin from

Montréal, Rich Webber from Cleveland and then I recognized Chris Starleaf emerging from the morning mist...all the way from Chicago!

And speaking of reports...the WESTFAC II results were in the last issue. The written report has finally made it into print elsewhere in this issue. Congratulations to Roger Willis and the Texas WESTFAC Working Committee for a job well done.

And then there was The Gathering of Turkeys down in FL with George White and crew flying the FAC banner proudly. Although the "Gathering" is primarily for events other than those flown at a traditional FAC contest, a.k.a. SAM and AMA, George has been championing our events for some time. He reports that entries into FAC events keep growing each year and this gathering was no exception. Well done everyone!

It's time to start finalizing plans for the 2010 FAC-NATS! Motel information for Geneseo, NY is in this issue. If you found reasonable lodging outside of Geneseo, please send that information onto me so I can pass it along in the next news letter.

For those of you wanting to stay at the SUNY dorm, information will be on the "Registration Page" at the back of this issue.

Prices for everything have gone up again. Sorry to say, but GHQ can not absorb the increases as we did last year. I'm sure you'll understand.

Finally, for many years, Raubie Hopkins has been the liaison between the HAG and the FAC. GHQ was very saddened to learn of the passing of her husband, Edward "Happy" Hopkins this past October twelfth. The next time you're at the field, please stop in and thank her for all the work she has done to accommodate the FAC on the HAG flying field.

Ross P. Mayo, FAC, CinC.

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**URGENT!!!!**

We have received from the Post Office notice that beginning **January 3, 2010** any newsletter that is returned due to **change of address or temporary away** we will be charged to receive the newsletter back. On change of address if we resend it to the address the Post Office has furnished we pay first class postage. The Post Office is also going to charge a fee besides the first class amount. We would appreciate it if you would notify us when you are moving or going to be temporary away.

\*\*\*\*\*

**SOS**

A member is looking for newsletter plan of the ERCOUE with a 20" wing span. He thinks it was in a newsletter about ten years ago. If you have it, please contact Bill Todd, Jr., 928 Churchill Drive, Gastonia, NC 28054.

\*\*\*\*\*

We have not had many SOS for information as we have in the past. If you want something put into the newsletter, please notify us.

\*\*\*\*\*

We have had several notices of deaths of our members. Since the last newsletter. We send our deepest sympathy to their families and friends.

Those of you who were at the last Non-Nats remember our streakier award

which was won by George Lewis. He really put on a great show. I have known George personally since before the NATS at Detroit. I know that none of you will forget him as he has gone to that flying field in the sky with all his flying buddies. We send our deepest regrets to Lynne and hope to see her soon.

\*\*\*\*\*

In this addition you will find the plans for the Flying Aces Moth which will be an event at the Nats and also at Muncie. You need to get building to have your plane ready to fly.

There are plans for the Commander by Bill Winter, and a 1929 Fairchild F-21 Low Wing Monoplane.

\*\*\*\*\*

Don't forget we have calendars which are \$17.00 including postage also T-shirts which are \$8.00 plus postage.

\*\*\*\*\*

If you are interested in a particular plan and that I may have and it is not so big that it will take the four pages back and front. Let me know. It may have been one that was in a long time ago. As everyone knows I have a lot of plans, but I'm still cataloguing them. Anything you are interested in let me know as this newsletter is for you. See you at the NATS.

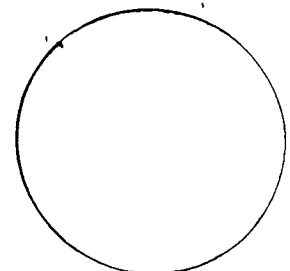
Juanita

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**NOTE: DUES STRUCTURE AS OF 1/1/2008 BELOW**

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IF THE CIRCLE ON THE RIGHT HAS THE DREADED RED "X" IN IT, IT IS TIME TO RENEW YOUR MEMBERSHIP WHICH INCLUDES THE NEWSLETTER. COST IS \$18.00 PER YEAR IN THE U.S.A., COST FOR CANADA IS \$25.00 PER YEAR. COST FOR OVERSEAS IS \$30.00 PER YEAR. ALL IN U.S. DOLLARS. SIX ISSUES PER YEAR, PUBLISHED APPROXIMATELY EVERY OTHER MONTH. PLEASE MAKE CHECKS PAYABLE TO: FLYING ACES CLUB, 3301 CINDY LANE, ERIE, PA 16506



CLEVELAND FREE FLIGHT  
SOCIETY

ANNUAL  
INDOOR CONTEST &  
RECORD TRIALS  
A.M.A. SANCTIONED

Saturday, April 24, 2010  
Kent State University Field House



7:30 AM – Building opens (test flying)

AMA Events

8:00 – 11:00

1. Hand Launch Glider
2. Standard Class Catapult Glider
3. Unlimited Catapult Glider

8:30 – 5:30

4. EZB – scoring is best of five officials
5. FIL (1.2 gram EZB)
6. Limited Penny Plane
7. Mini Stick – best of 5 officials, 20 sec minimum

9:00 – 3:00

8. Seven Gram Bostonian – AMA rules

FAC Events

9:00-4:30

9. GHQ Peanut Scale - 3 flight total + scale points
10. Comet Old Time Plan/Kit Scale – 3 flight total
11. Golden Age Civil Scale – 3 flight total
12. Dime Scale - 3 flight total
13. No Cal Profile Scale 3 flight total - 6.2 grams
14. WW II Combat – 12:30 PM
15. Phantom Flash - best 3 of 6 ROG, 120 sec max.  
Mass launch tie breaker.

The building will remain open from 5:00PM to 6:00PM  
for AMA Record Trials

FYI:

- All events are J S O combined
- Steering of models as per AMA rulebook
- Entry Fees: Open - \$30.00 Junior - \$2.00
- Very Important - You must provide your own table and chair
- No Indoor RC flying permitted during the contest
- All Flyers must have a valid AMA license.
- AMA events: see rule book for information
- FAC events will use the 2010 FAC rules.

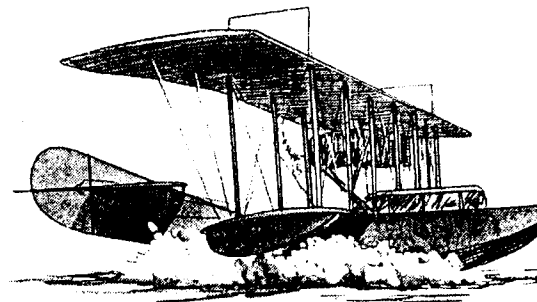
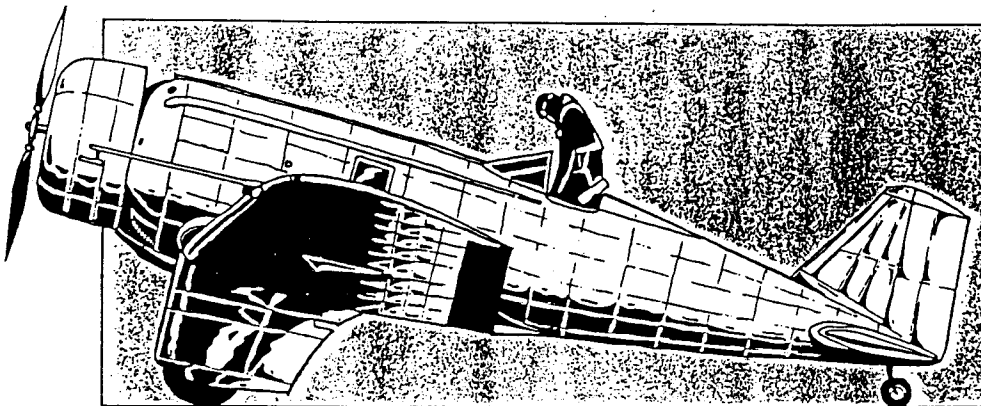
Awards

Prizes will be awarded for 1<sup>st</sup> place in each event that there are 3 flyers with official flights. There will also be certificates. There must be 3 official flyers in an event to win a prize, earn a FAC Kanone, or receive a certificate.

Contest Directors:

Michael C. Zand  
5308 East Ash Road  
Independence, OH 44131  
216-524-3480 imzand@hotmail.com

Don Slusarczyk  
868 Eaglewood Dr.  
Willoughby, OH 44094  
440-918-0290 don@slusarczyk.com



THE  
FLYING ACES CLUB

is a society of unique individuals with a common interest that at times borders on a passion. It is our intent to preserve and promote the traditional building and flying of free flight stick and tissue model aircraft. Although competitive at times, the sharing of innovations, assistance and camaraderie is second nature to all that believe in the unique spirit of the  
FLYING ACES CLUB.

## THE LEGENDARY JENNY (by Al Cleave)

The Curtiss "Jenny" was to World War One as the Stearman was to World War Two in the field of military pilot training. There was nothing about the airplane to make it superior in any way to its contemporaries of the time, being in no way either an outstanding flying machine or having any notable performance characteristics. It achieved fame solely because it was there, happening to be in production at a time when both U.S. and British military forces needed large numbers of this particular type for pilot training programs.

For a time, Curtiss' only competition was the Standard Model J, built by Standard Aero Corporation and powered by the Hall-Scott A-7A engine. This power plant proved to be so unreliable, though, that all 1,600 aircraft built for the Army had to be withdrawn from service in 1917, leaving the Jenny with a monopoly in the trainer field.

For several years following the Wright brothers' flight in 1903, most aircraft had used the open framework construction and pusher engine arrangement basically similar to that of the Wright Flier. Curtiss Aeroplane and Motor Company of Hammondsport, New York, was the leading supplier of these types to the Army. By 1913, however, the Army had begun to take a dim view of pusher designs in general due to their poor safety record and decided to opt for tractor types in the future.

As soon as Glenn Curtiss learned of this change in policy, he quickly produced an aircraft of this configuration known as the Model "G". Performance was totally unsatisfactory, and Curtiss realized it was because the airplane had not really been designed. Instead, it had been conceived from hurried sketches and eyeball engineering by people who, although experienced in pusher design, lacked expertise in the new and unfamiliar field of tractor machines.

A British designer who was a capable engineer with extensive background in tractor design, was hired in late 1913 and under his guidance, the Curtiss Jenny was born. The first model --- the "J" --- appeared in 1914, and two of these were built, followed immediately by the "N". The best features of both models were combined into the JN-2 in 1915, with "JN" evolving eventually into "Jenny" simply as a matter of phonetics.

The JN-2's first claim to fame lies in the fact that eight of them (fitted with JN-3 wings) were sent from Fort Sill, Oklahoma, to Columbus, New Mexico, and used by General Pershing's forces during the military expedition against the notorious Mexican bandit, Pancho Villa. Villa was, at the time, raiding and running rampant throughout the countryside north of the Rio Grande and making a general nuisance of himself, so the Army, in all its glory, was dispatched to the area in an attempt to discourage this sort of thing.

All the expedition accomplished was to chase Pancho around over much of northern Mexico and the Southwest while never catching up with him and achieving absolutely nothing. In the process, six of the eight Jennies were lost in accidents that were due in large part to a combination of terrain elevation and scorching desert heat that resulted in density altitudes more than the underpowered Jennies could handle. The two survivors were crated and shipped back to Fort Sill.

The problem with Pancho was eventually resolved by the simple expediency of bribery. This involved giving him a large ranch with the understanding that in return, he'd lay off the rough stuff and cease and desist from plundering and pillaging.

(The Jenny's second claim to fame, as mentioned earlier, came about in 1921 when one was used as a crop duster. This was the first airplane ever to be employed in this capacity, a pioneer in a field that would grow into a major industry worldwide in years to come.)

Subsequent improvements and modifications followed the Villa era until the JN-4D arrived on the scene in 1917. This was the ultimate development of the JN-4 line as a primary trainer and is the machine most visualized whenever the name "Jenny" comes up. Power was provided by a water-cooled 90-hp Curtiss OX-5 engine, a name famous in its own right.

(After production of 13,000 engines, output was terminated at the end of World War One, but large numbers were available from surplus stocks and continued to be used in various new civilian airplanes through 1930.)

A simple upgrading of the low-powered JN-4D to a higher performance advanced trainer was made by replacing the OX-5 engine with the 150-hp Hispano-Suiza "Hisso". This resulted in the JN-4H. (Hisso models are recognizable by a slightly larger nose and a radiator with rounded underside when viewed from the front as compared to the squared-off, flat-bottom configuration of the OX-5 version.)

A certain amount of confusion arose in 1917 when a second model with a JN-4 designation showed up. This was built in Canada, essentially a redesign of the JN-3 to British specifications, and erroneously used the JN-4 nomenclature because of a lack of communication with Curtiss. The Americans dubbed the aircraft "Canucks" to differentiate between the two, and the official designation became JN-4Can.

Curtis remained active in the Jenny field during post-war years when the company bought back some 20 million dollars worth of Jennies and OX-5's at the rate of approximately 13 cents on the dollar. These were then renovated to "like new" condition and sold for around \$3,500, slightly less than half the original selling price to the Army.

In later years, the administration initiated a policy of dumping large numbers of aircraft on the market direct from surplus storage. This was a move to counter government-backed programs in Europe, principally England, aimed at the unloading of their own surplus aircraft in the United States. This drove prices down drastically until a low was reached in 1926 when average cost was in the neighborhood of \$500.

This was the last year of unregulated flying, and after government laws began to take effect, prices rose slightly for airplanes still meeting the airworthiness criteria for commercial operations. Others that were too far gone to be rebuilt at reasonable cost were sold for next to junkyard prices.

The advent of federal licensing in 1927 marked the beginning of the end for the Jenny era. By 1929, most were unable to pass inspection and were replaced by new machines such as Travel Airs, American Eagles, Wacos and similar types.

When production ceased at war's end, a total of slightly more than 6,993 different aircraft spanning 13 different models had been produced. The Jenny, like its Stearman counterpart in World War Two, ably filled a desperate need --- one vital to the country's survival --- and well deserves its place in history.

## THE GOLDEN AGE

by  
Fran Ptaszkiewicz D.S.M.

Four for a nickel. So read the advertising on the box front, followed by the name of the models inside. Then a statement proclaimed, "This box contains enough material's to make / build four complete models".

It was a time when money was short and for some modeler's, a nickel would be a king's ransom, so to speak.

Yet, for that 5 cents you could have the pleasure of assembling four different models and build a miniature fleet of solid or what were also called 'shelf' models.

For those who may not remember, there were flying models and shelf models, each builder of either defending his choice. With the solid modeler saying, "you build those tissue covered models, they crash and you have nothing", while the flying model builder would answer, "you build yours and all you can do is put them on a 'shelf' and look at them".

It was a time when the hobby was growing and some kit maker's were adding to their ten cent line of solid's with the small four in a box model's.

There were a number of company's producing these kit's and ones that come to mind are Comet, P.K.G., which I believe was the Paul K. Guillow Company, Airway Model Plane Company located in Brooklyn, N.Y. that for some reason became the A.M.P. Company also located in Brooklyn, N.Y. and Ace Whitman (Joe Ott).

With the P.K.G. Company kit, all of the plans were to be found on a single sheet with the models having a wingspan of only 2 3/4 inches. On the one plan sheet in my collection could be found the Ryan ST, North American BT-14, Martin "Baltimore" and the Bell "Airacuda".

Having a fuselage of 2 inches or less, carving could be described as delicate at best and that single edge razor blade could produce some nasty nicks when attempting to hold and trim the part's to shape. Yet with nimble fingers it was reasonably easy to produce a tiny model resembling the ship on the plan and because time was of no essence, a modeler could derive hours of pleasure in working on these miniatures that fit his budget.

The Airway Model Plane Company, also produced a line of four for a nickel kits which were similar in size to the models from the Comet Company. Here the kits had four separate plans and the wingspans in most designs measured 3 inches or better. Some improvement in size over the P.K.G. offering's, but not that much.

Here too, some dexterity was required to hold the pieces while shaping to prevent those unwanted razor blade dings to fingers.

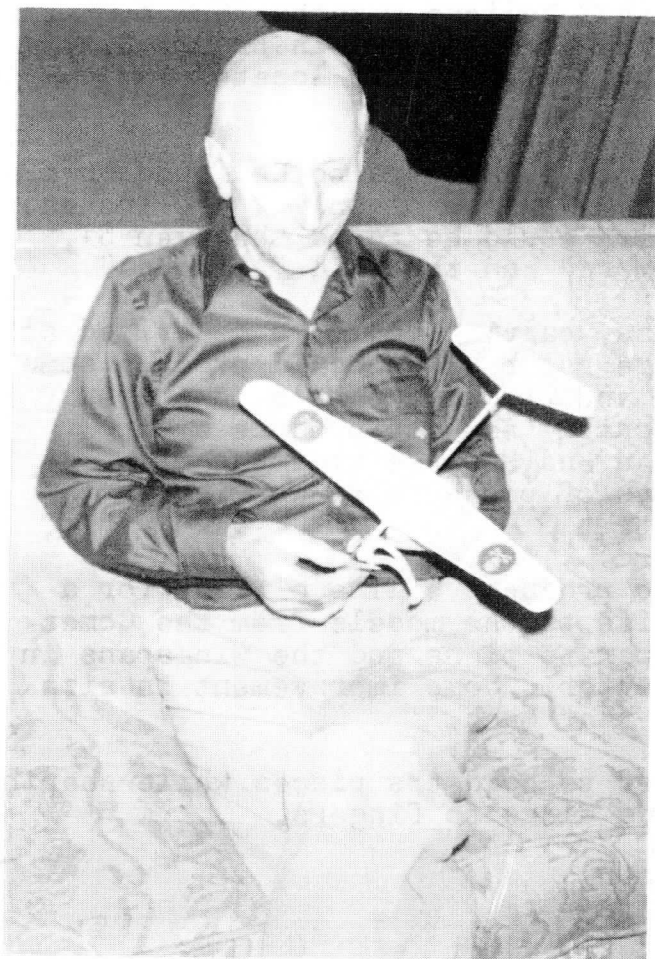
My collection show's at least sixteen set's of plan's which covered a large variety of design's and while reviewing the plan's recently, model's such as the Loening or Fairchild amphibians were fairly easy to carve, shape and sand, so that nimble fingers could handle the tiny fuselages, wings and tailplanes. Then the Martin 156 flying boat, the Boeing B-17 and the Consolidated PBV presented a little different problem. Trying to shape the two and four engine nacelles became somewhat of a problem which was resolved by rounding a length of balsa to the correct diameter and slicing off the nacelle lengths as required.

My fixation with biplanes at that time led me to look for kits having two wings and so, I found the Albatross D-Va, French "Spad" in one box along with a Curtiss "Seagull" and Laird LC-300.

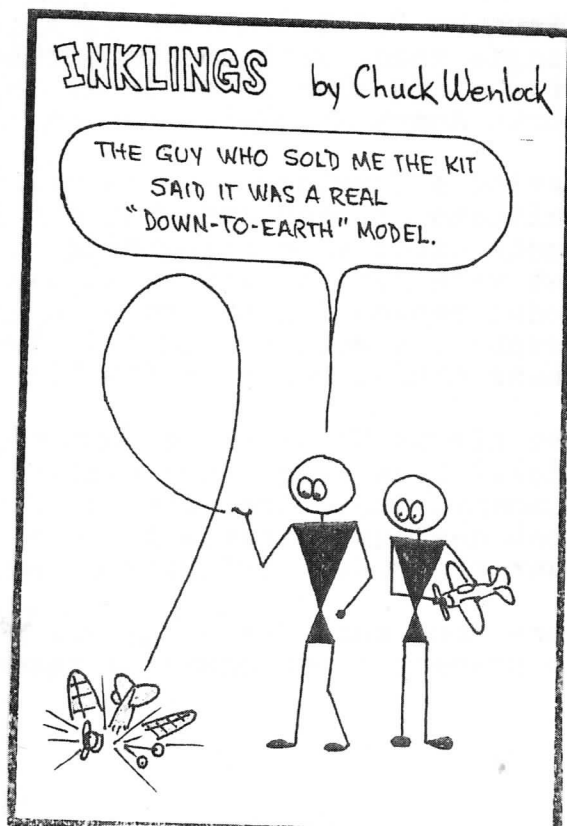
Later kits produced early World War II designs such as the Heinkel He 113, Vultee V-11GB, Bellanca Fighter-Bomber. Hi-wings were not forgotten as one box had the Piper Cub Coupe and Ballanca "Senior Skyrocket" among others.

Ace Whitman also produced this series of small models with designs such as the Abrams "Explorer", Bell Scout Bomber and Aeroneer to name a few.

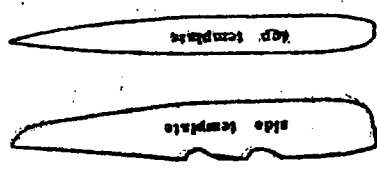
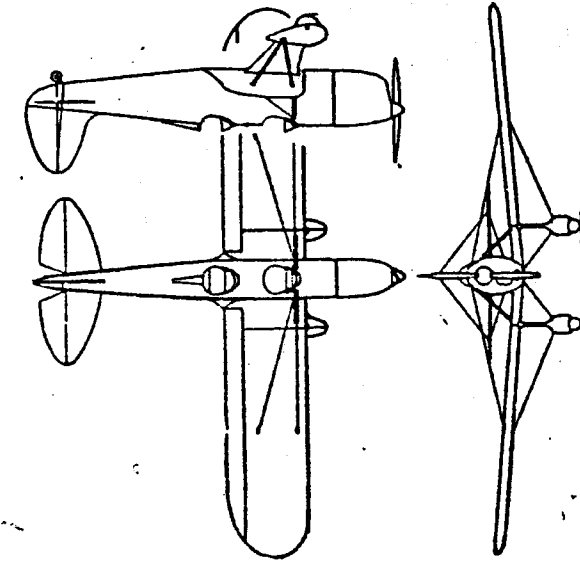
Although these models may have been small in size, the value gained by the model builder was eventually worth more than the nickel spent, in that it kept and sustained the interest of many early aviation enthusiasts.



The photo is of Bill Bishop, Comet Founder with a Phantom Flash given to him by Bill Hannan. Photo by Bill Hannan.

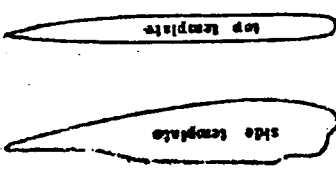
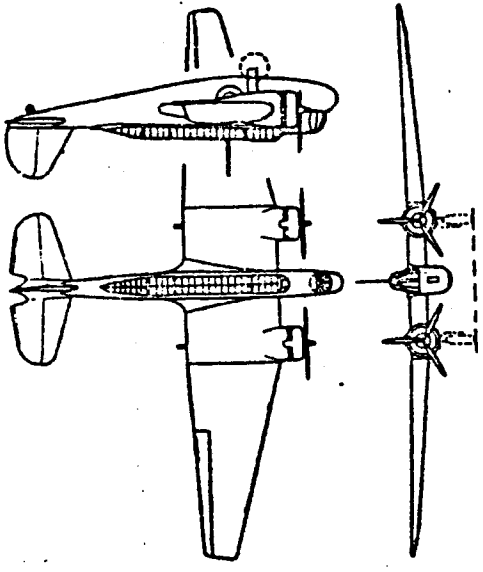






**DIRECTIONS**  
Trace side template of body on block. Cut the body to the outline. Trace top template. Cut to shape. Cut wing from print stock, then the other parts and assemble.

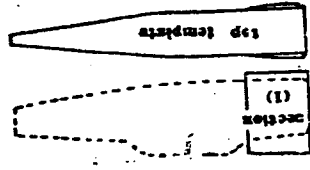
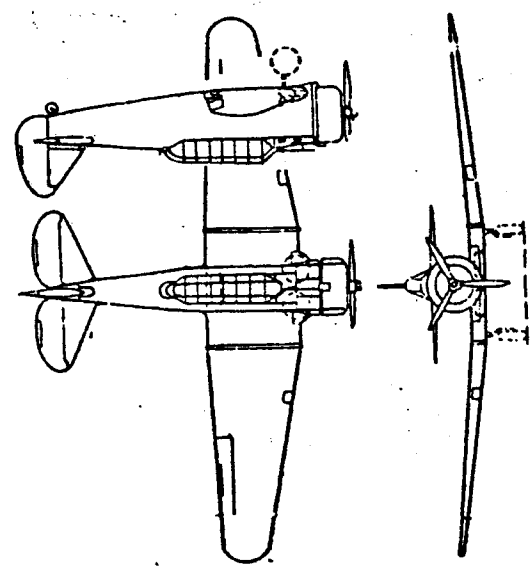
**RYAN**  
© 1939 P.K.G.



**DIRECTIONS**  
Trace side template of body on block. Cut the body to the outline. Trace top template. Cut to shape. Cut wing from print stock, then the other parts and assemble.

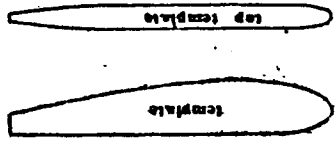
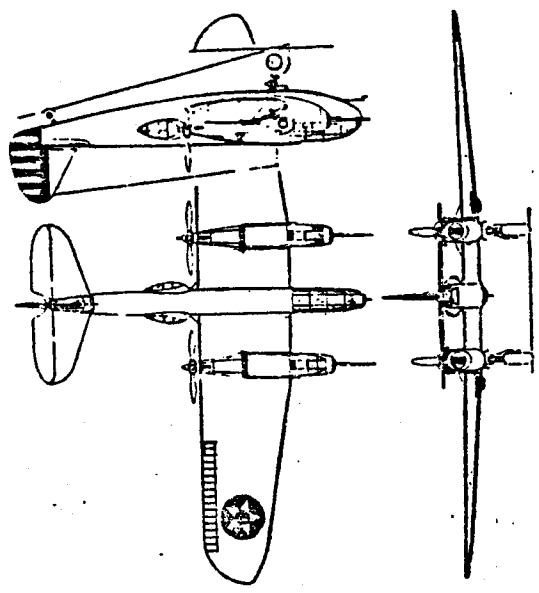
**MARTIN**  
© 1939 P.K.G.

# SET NO. 3



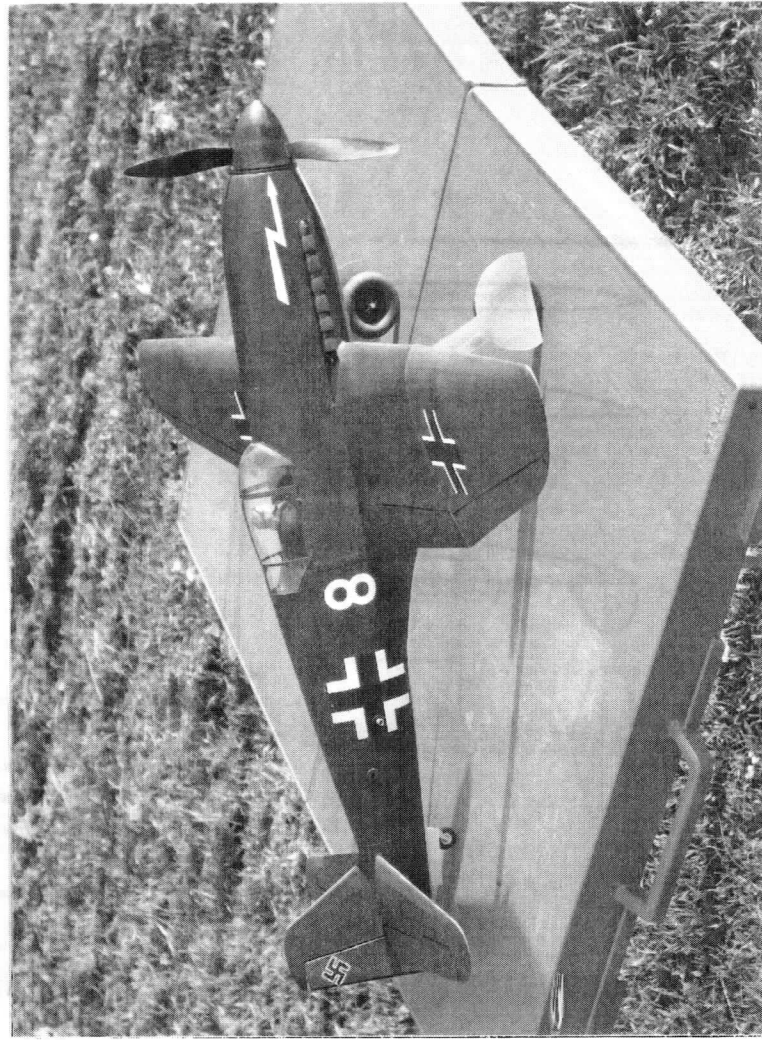
**DIRECTIONS**  
Trace side template of body on block. Cut the body to shape. Glue ballast side of body as indicated. When dry cut to shape of body. Trace top template, cut to shape. Then cut out printed wood parts. Assemble model.

**NORTH AMERICAN**  
© 1939 P.K.G.



**DIRECTIONS**  
Trace side template of body on block. Cut the body to the outline. Trace top template. Cut to shape. Cut wing from print stock, then the other parts and assemble.

**BELL**  
© 1939 P.K.G.



The photos are Guillows Fairchild 24 made to replace the one he took to the Nats And subsequently lost at the British Nationals.  
The ME100 is his own (Jim Antoine) design.



This is what is called starting your kids early.  
Ken and Jim are both FAC members. Photos  
By Jim Antoine.

# ONE DESIGN EVENT FOR THE 2010 FAC-NATS

## THE FLYING ACES MOTH

History: Herb Spatz's original plan and construction article appeared in the August 1937 issue of *FLYING ACES MAGAZINE*. The full size 24 inch wing span plan was presented on three pages. Perhaps someone from the Old Geezer Squad can shed some light as if this was a regular practice or did Herb get preferential treatment because he called the ship the FA Moth?

Over the decades...yes, decades, the model has been built, flown, lost and rebuilt by just about everyone who got hooked on free flight rubber. It has been redrawn several times to fit various formats and club news letters and several different companies have produced kits over the years with minor changes.

Most recently, the Cloudbusters announced the FA Moth would be the honored subject of the One Design Event of the 2010 Outdoor Champs at the Muncie, AMA flying site. A plan was featured in their Sept-Oct 2009 news letter. As a result, several FAC'ers let us know about those different versions of the Moth circulating out there amongst us free flight types.

As many of you club members make the pilgrimage to Geneseo, but can not make another trip to Indiana just a few months later, GHQ and the Cloudbusters have decided to fly in formation with the FA Moth as the One Design model for both the FAC-NATS and the Outdoor Champs. I thank CD's Ralph Kuenz and Fred Gregg for their cooperation

in developing this event. It should be a mass of Moths to the light of the sun next summer.

The Spatz's plan is elsewhere in this issue along with the original building article for your enjoyment. Perhaps you already have a plan you were saving for a special occasion. Well, that special event is here and it's high time to get some balsa to the board. BUT! Before you start, please take note: as reported, there are several versions and kits out there so how do we deal with that issue? Well, we'll make some requirements and give you some options. So make whatever adjustments you need and get that balsa bug ready for July AND September.

"Hey Sky Boss! What about those of us who built a FA Moth for Old Time Cabin years ago? Do we need to rip the tissue off to change diagonals, re-wire the landing gear and slice off 1/4 inch of wing panel to fly in the soon to be great One Design Event at G-town and Muncie? Not only that, but my new girlfriend built the Peck kit three weeks ago. It has a "short nose" unlike mine. Does she have to make her Moth grow a new proboscis?"

Well now, hummm, okay, here's the deal: Ralph and Fred say that if you have been flying your Moth for years ( and they will be able to tell!), a "grandfather clause" will let you fly...as long as your Moth looks pretty damn much like a Moth. So get that model out or down of the shelf, dust the dust off and install some new rubber and you'll be good to go. You

might have to change the prop, but who knows...maybe it will fly better than ever.

As to that young lady with the Peck kit...it must be flown with an 8.5" plastic prop. One blade can be sanded for balance reasons, but can't be scraped to paper thin thickness as that will negate the original purpose of the shorter nose kit.

"How we gonna fly the event?" Total of three flights and ROG is the name of the game.

Two bonuses for those who enter a Flying Aces Moth in the One Design Event: 1) You may also enter it in Old Time Cabin...just be sure to fill out the timing slip correctly. 2) You will receive a three color FLYING ACES CLUB logo decal courtesy of GHQ. They're old and the ink might bleed a little, but they're cool nevertheless.

Any more questions? If so, you know how to contact the three of us. Good luck! The CinC.

### REQUIRED:

- 1) 24 inch wing span,
- 2) Flat bottom airfoil,
- 3) 3/32" SQ. fuselage frame,
- 4) 032-034 (MW) landing gear wire,
- 5) 1/4" X 1 1/4" balsa wheels and
- 6) 8.5" maximum diameter prop (wood or plastic).

### OPTIONAL:

- 1) Number, location and size of fuselage diagonals,
- 2) Rear peg type and location,
- 3) DT type, and
- 4) Wing mounting (pegs with rubber bands or magnets).

## WHILE WE'RE ON THE SUBJECT OF "SPECIAL" EVENTS, HERE'S SOME INFO ON THE S.L.O.W.

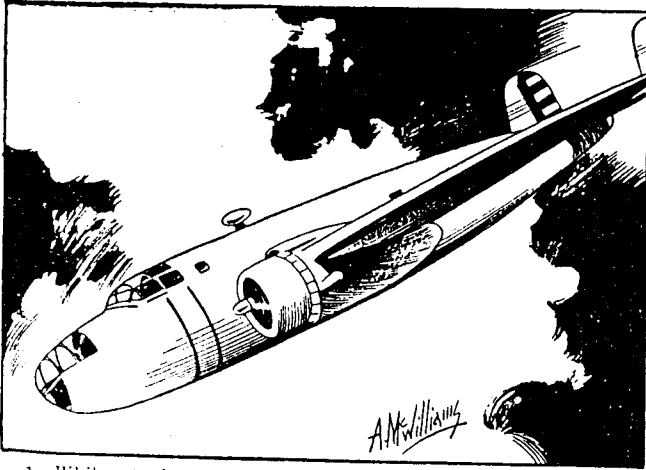
Consider this a heads up on "BONUS" points for the S.L.O.W. so you can get that new pioneer ready for competition:

- 1) Full details will be published in the FAC News in the next issue as space is at a premium in this one.
- 2) Bonus points per flight:
  - A. 3 points for scale rigging in 3 areas:
    1. Wings
    2. Stab and rudder
    3. Landing gear or floats
  - B. 2 points for rigging in any two of the above areas.
  - C. 0 points for rigging in less than two of the above areas.
  - D. 1 point for float / sea-plane.
  - E. 2 points for original, non-scale coloring and decorations.
- 3) No bonus points will be awarded for any model that lands outside the course.

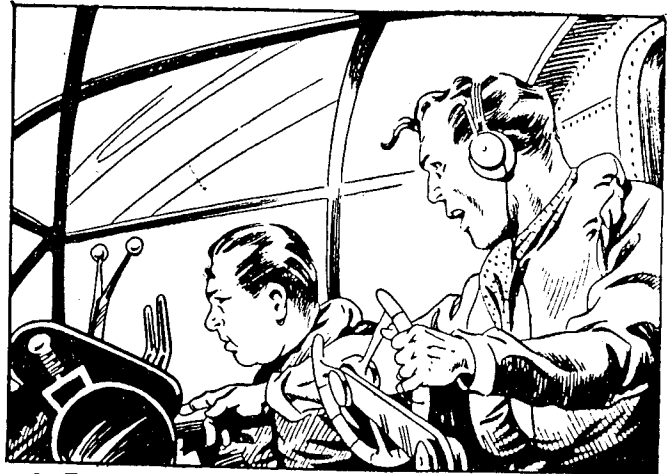
# AMERICA'S NEWEST ACES

## IV—LIEUT. LOUIS M. ABERNATHY—SUB-SINKER

BY ALDEN McWILLIAMS



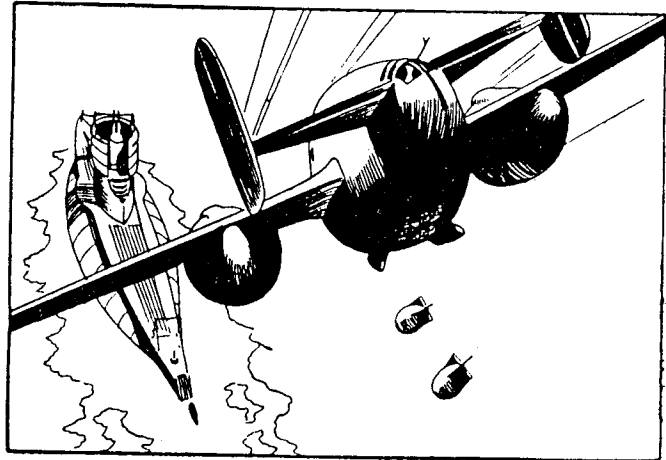
1—While at the controls of his North American B-25 twin engined bomber, Lieut. Louis M. Abernathy spotted an enemy submarine lurking off the East Coast. He ordered the crew of five to man their stations for action and then put his ship into a long shallow dive toward the U-boat. When he got within a few hundred feet of sub he gave the signal to ready the bombs.



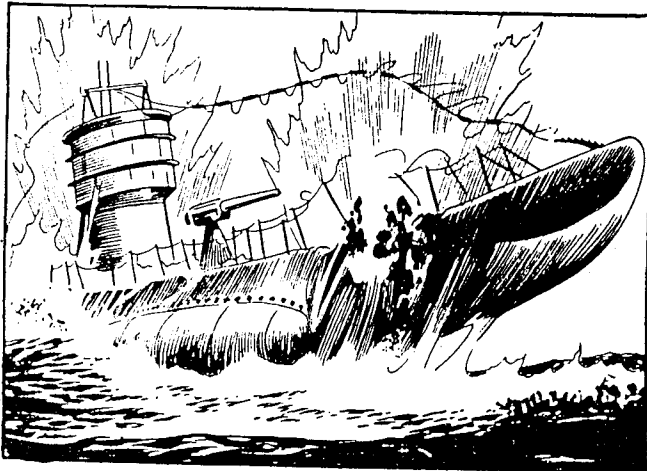
2—Four five-hundred pound bombs were moved into position as the bomb bay doors slowly swung open. Abernathy's co-pilot saw that the U-boat was beginning to rise to the surface. A few minutes later the crew of the bomber noticed that the sub broke surface and men climbed out of the conning tower hatch. Sailors clambered along the slippery plates and manned the guns.



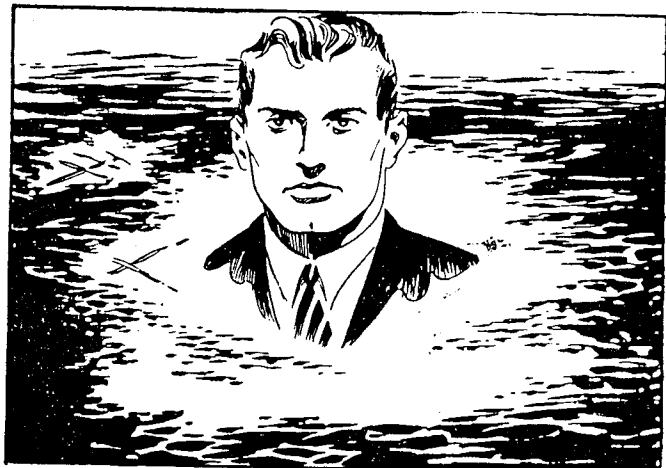
3—The U-boat commander, clearly distinguishable from the submarine crew, heard the roar of the bomber's engines and shouted orders for an immediate crash dive. Scampering down the hatch-way like a bunch of rats and closing the door behind them, the big submersible started into a dive. But Abernathy, circling low overhead, got the sub lined up perfectly in his sights.



4—At the signal from his Lieut., Private Donald J. Raher, the bombardier, loosed his two-thousand pound bomb load squarely over the settling submarine. The crew of the North American B-25 bomber waited with baited breath as the four huge explosives hurtled toward their big black target. The blue waters were slowly beginning to wash the decks of the U-boat when—



5—There was a blinding crash as the four bombs found their mark simultaneously. The huge submarine's bow suddenly leaped to the surface displaying a completely shattered nose. Sea water gushed into the cavernous hole and the nose began to slowly settle. There were no signs of life as the stern rose out of the water with propeller still churning away. Then it slid beneath.



6—The intrepid pilot, with his crew of five including co-pilot Second Lieut. Arthur J. Kush; navigator, Second Lieut. Thomas C. Day; radio-operator, Sergeant Joseph R. Tokar; flight engineer, Corporal John J. Duffy; and Pvt. Donald J. Raher, bombardier, were all cited for their bold attack and declared the first U. S. airmen to sink a submarine in American waters.

# THE PROJECT

By Capt. Philip Strange, FAC, G-2

The continuous search to identify the members of the infamous Bad Guy Squadron may well be close to an end. G-2 hackers have broken the coded password of a secret E mail website and recorded some of the correspondence, abridged parts of which are given below. Italics supplied by G-2.

Vince Gilberti: Listen youse guys, we bin doin' good at winnin' at all da meets. We gotta figger out a way to sew it all up for us all da time.

Tom Hallway: Yeah, Vince, I was thinking along those lines myself. I even came up with a good plan. Let's get Kip Stargazer in on this. I know he'll go for it.

Kip Stargazer: All the way, guys. What's your idea, Tom?

Tom: What we have to do is design an outrageously high bonus point airplane, build it full scale, fly it, and then build the model. We could build a model apiece, and rack up victories for each of us.

Vince: Wait a minute, here. Two guys have to dog it, so each of us gets da Kanone in turn. I like youse guys. I'd hate to mess up a knee cap, ya know?

Kip: No problem, Vince. We'll be the Three Musketeers of the Air".

*Many technical exchanges went on for weeks before the final design was firmed up. Once again we relate the upshot of the workings of this evil trio.*

Kip Stargazer: It looks like it'll fly, but why don't we run it by an expert, like the Glue Guru, just to be sure. This will require a lot of work to build.

Vince Gilberti: I don't like dat guy. He t'inks he knows it all.

Tom Hallway: C'mon, Vince. We have to be sure.

\*\*\*\*\*

*By the clever placement of listening devices we are able to relate conversations of their meeting with the Glue Guru.*

Hallway: Remember, guys. We can't let on what the mission of this airplane is or he might blow the whistle on us.

Vince: Jeez, what a hike! Why da frig has dis bum gotta live way up here on dis mountain top? Hey, dere he is over dere! I t'ought it was a mountain goat. Jeez, lookit da goatee on him. Hey, Guru. What's da woid?

Hallway and Stargazer: Salutations, oh great Guru.

Guru: Greetings, to you of ill mannered ignorance. What is the purpose of your intrusion upon my aeronautic meditations?

Stargazer: We have a design for a full scale airplane for you to examine, should it please you. We humbly seek your advice as to its feasibility, oh honored one. May I present the drawing to you?

Guru: Place your donation to my well being in that urn over there, and we will commence.

Vince: Psst. Tom, I figgered dis guy for a touch. I'm gonna give him a touch wit' my knuckles.

Hallway: No, Vince! Think of that long climb up here. Do you want to have done that for nothing? I'll make the contribution.

Guru: Hmm. This is not a simple aircraft to carry a lone pilot. It is not unlike the Caproni triple triplane flying boat of years past. What are all these little things along the leading edge of all the wings?

Stargazer: Er, ah, well, those are model airplane motors, oh great one. We, er, are attempting to save money by using them. Since the RC modelers are switching to electric power, there are many of the gas engines available for little money. That is why there are nine wings. We needed a lot of leading edges to mount them on, yeah.

Guru: Other than creating an inexpensive aircraft, what is the purpose of this machine?

Vince: Psst. Tom, dis punk wants to know too much. I'm gonna hit him.

Tom: Easy, Vince. Wait 'til we see what he says.

Hallway: We are, um, going to do airshow work with it. Yeah! We might even take it to Italy! It looks so much like the Caproni it's sure to be a hit over there. Right, Vince?

Vince: Yeah, sure. Italy.

Guru: How do you propose to start all these motors?

Vince: Kids. Italy's got big families wit' lots'a kids. Da kids'll climb all over it just ta start da motors.

Guru: What will you do if more power is needed?

Stargazer: We'll just add motors. All the more bonus poi....Er, I mean, the more the merrier.

Guru: Then you will add more wings on which to mount these additional motors?

Hallway: Sure. Why not? Like Kip said, the more the merrier.

Guru: Because it is like a dog which chases its tail. It is an endless futility. You will never achieve success with this configuration. Go back to your drafting boards. It will never fly.

All three: Are you sure?

Guru: Yes. It is written. By the way, Mr. Gilberti, you are the darkest Italian to ever cross my path. What province do you come from?

Vince: Yo, bro, Ahm from Pizzeria, down in the toe of the boot. Lotsa sun down dere, ya know.

Guru: I bid you all farewell. It is time for aeronautical meditation. Here is your drawing.

*With this, the discouraged trio began their descent. After a short distance.....*

Stargazer: Hey! Isn't that Never Ready Eddie's Beardmore Inflexible in that snow bank over there?

Vince: Leave it right dere. We don't need dat crate messin' up our chances for more Kanones.

Stargazer: Wait a minute. Stott watched it through binoculars on that over half an hour flight it did at Geneseo. He said it went down in the town. They looked all over the area he said it should be in, but never found it. How'd it get all the way up here?

Vince: Don't be a joik. Dat crate never landed in town. It went OOS all the way here. Stott was da only one watchin' wit' binnocs, so he never said nuttin'. He din't like Novak upstagin' him, dats all. Dat rat and his founding fatherly act. What a bum!

*Fortunately, Vince Gilberti's caustic attitude worked in G-2s favor. Our super sensitive listening and recording devices were hidden in the Beardmore model. Once the trio had return home, interception of their E mail messages continued.*

Vince: Lets have anudder look at dose plans, guys. I ain't sure dat Guru guy was on da level.

Hallway: Hey! I unrolled the plans and a note dropped out! It's from the Guru. He says, "I knew what you were up to. Your chances to hoodwink me are as futile as an attempt to bribe Commander Ross Mayo to favor

you. It was as obvious as the fact that Mr. Gilberti was not an Italian. Do not defile my mountainous realm with your uncouth presence ever again."

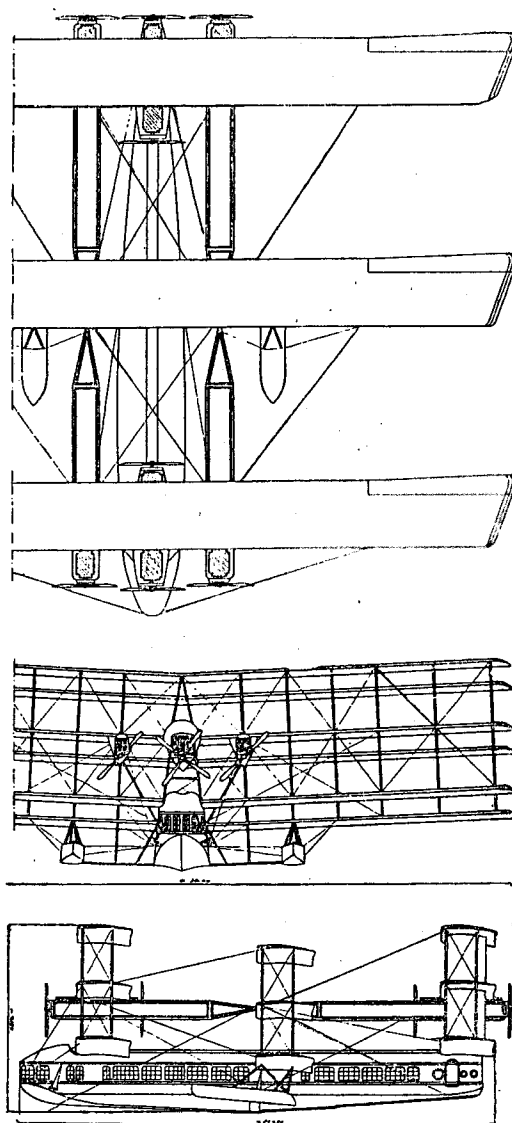
Vince: I told ya dat guy was a punk. I shoulda let him have it in da knee cap.

Stargazer: Worse yet, is we don't really know if he gave us the straight dope on our design, or not!

Stargazer: If the idea worked, our constant winning would have degenerated FAC Scale in a short time. It would become a one design event because everyone would be entering the same high bonus point model. We could have wiped out the FAC!

CAPRONI NOVI PLANO  
Inspiration for the Bad Guy Squadron Project

Imagine a smaller and lighter full scale single place light plane along these lines powered by as many as 90 OS Max RC engines, ten to each of the nine wings! The FAC Scale model of it would have the rubber motors running from wing to wing with the rear wing motors mounted as pushers. Bonus points galore!





**\* \* Trailing Edge \* \***

Mumbo Jumbo #142 from the Glue Guru

We all fiddle with airfoil nose shape, seeking something light, sturdy, and efficient. Our literature has any number of radically different leading edge designs, some sharp and some well-rounded, each touted as a winner. Perhaps some of each type really are. At least we're willing to try something different.

However, where wing trailing edges are concerned, we mostly stick to the tried and true, employing a tapered stick concept, fairly sharp at the rear-most position; where it is perhaps only a sixteenth of an inch thick locally, becoming progressively thicker as we move forward to become part of the airfoil proper. No bulbous approach here—ever. Why not? It all has to do with circulation.

Lift itself does depend on that strange Bernoulli effect upon the airfoil. As given in every aero text, the airspeed over an airfoil top surface is higher than that below. The speed increase serves to decrease local air pressure—the greater the speed increase, the lower the air pressure. It is this difference in air pressure—low above, high below—that pushes the wing upwards, thereby becoming lift. Fine. It only remains to create the necessary difference in velocity between air moving across a wing's upper, as compared to its lower surface.

We do this by making use of Mother Nature's strange aversion to rotating columns of air, should they be unbalanced. Where she is concerned, every rotating column must have an equal and opposite partner, acting to produce a net rotation of zero.

In the case of airfoils, a sharp trailing edge, set slightly against the flow stirs the air moving past the wing into a rotating column of air, one with a

horizontal axis. Always on the job, Mother Nature supplies a compensating air rotation. To oppose the curling around the trailing edge, an oppositely rotating curl is supplied about the leading edge. The rotation, called circulation, is strong enough to add velocity to air moving above the wing while subtracting velocity from air moving below the wing. Now that's exactly what is wanted to create the Bernoulli effect leading to lift. In short, it's correct to reason that the pointy trailing edge is the key to lift. Rounding the trailing edge, while helpful in reducing drag, would act to prevent lift. In the limiting case, inserting a big rounded member as trailing edge would end lift entirely.

Thus the need for a pointy trailing edge, held slightly against the flow. In sum, Mother Nature insists upon it as the price of lift, and we go along with her wishes. But why does she care? What is so terrible about an unbalanced rotation of air? It would soon dissipate. I don't know. Truly sorry about that.

One thing we do know: keep that trailing edge sharp!

\* \* \* \* \*

**An Advert for Myself**

The Glue Guru approach has been applied by Leon Bennett to his book "Gunning for the Red Baron." Partly a how-to on aerial fighting, there's a great deal of stuff there on tactics, along with aircraft performance and oddities. Why was the Parasol viewed as a good idea? Why did biplanes carry the day despite all their drag? It's all here, in a book published by Texas A & M and offered by Amazon, Barnes & Noble and your local book store.

# WESTFAC II or Much Fun in Texas

WESTFAC II is now FLYING ACES history and it made some too. First, for you timid flyers who did not venture to Gainesville, Texas for this event, you really missed a big one. With 15 events including five mass launches, there was plenty of excitement. The flying site was made for scale rubber and power...just ask anyone who flew over it. We had Builders and Flyers from twelve states and Canada. These folks came to fly and according to them, they had a wonderful time.

It all started on Friday at the Comfort Suites in Gainesville. Our five scale judges went to work on over 100 scale aircraft with one of the largest Jumbo/Giant Rubber Scale entries I have ever seen. Larry Kruse was there to both fly (he won the coveted Walt Mooney Memorial Trophy) and covered the event for FLYING MODELS. By the way, if I can quote Chris Starleaf nearly correct, he said this was one of the best events he has ever attended. The scale judging table had a "new member" at the end of it. Besides the five judges, there was Mike Isermann

with a lap top computer. That little baby had some new software in it to automatically update scale scores with flight times and to do the FAC math for each aircraft. This is new territory and it proved very worthwhile.

Saturday morning started early at 7AM for official flights. We had studied seven years of wind historicals before picking the dates for the event, but with Ol' Mother Nature, you just never know. The Texas Working Committee was ready and booth Saturday and Sunday events went well. Thanks to a wonderful Town spirit, we had donations from the Chamber of Commerce and fantastic help from the Airport Manager. Both will receive commendation letters from WESTFAC. This was the first event I have attended that had free golf carts available for aircraft retrieval thanks to Grant Carson (a FLYING ACES member and resident of Gainesville)...!!

At 4PM on Sunday, we stopped flying and at 4:45PM we had the final results from the computer. Herb Kothe was named Grand

Champion and was presented with the new "MIKE MIDKIFF GRAND CHAMPION TROPHY" which will now revolve around our three WESTFAC venues (Perris, CA, Gainesville, TX and Denver, CO).

Our primary objectives were surely met at WESTFAC II. WE HD A LOT OF FUN and continued to develop our venue Management Teams who will run WESTFAC in the future. Congratulation to the Texas Working Committee and all of the WESTFAC II Flyers.

The next WESTFAC is still in the planning stages and we hope to have it in 2011 in Denver, Colorado.

Many Maxes to All,

Roger Willis

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Results of WESTFAC II were published in the Nov. /Dec. issue of the news letter. To see all the photos (in color!) go to the WESTFAC web site at [www.westernfac.com](http://www.westernfac.com) and click WESTFAC II pictures.

Thanks for the news Roger,  
The CinC.

## HALL OF FAME NOMINATIONS NOW BEING ACCEPTED

Know someone you think deserves to be in the HOF? Then nominate the person and tell me why he or she deserves to be inducted. You may nominate a MAXIMUM of two people. Send your nominations to the CinC. You may use snail mail or email, but get your nominations in before the deadline of MARCH 1, 2010. Please include your email or phone number. If you happen to nominate someone who has already been inducted, I'll personally let you know so you can nominate another. (I would list all those already inducted, but that would take up too much valuable space in this news letter...perhaps next issue.) Don't delay! Nominate today!

Ross P. Mayo, FAC-CinC, 4207 Crosswinds Drive, Erie, PA 16506 and my email is [facghq@verizon.net](mailto:facghq@verizon.net).

## MOTEL INFORMATION FOR 2010 FAC-NATS

Planning on going to the 2010 FAC-NATS and you prefer to stay at a motel...here's all the information you'll need if you want to stay at the traditional GHQ Motel in Geneseo:

The Geneseo Quality Inn  
4242 Lakeville Road  
Geneseo, NY 14454  
585-243-0500  
585-243-9007 FAX

A block of 35 rooms are reserved for members of the FAC from July 13 (Tuesday) through the 17TH (check out Sunday AM). You must make the reservations on your own. You must mention Flying Aces Club to get the special room rate of \$104.00 per night (plus taxes).



# **FAC-NATS WANTED LIST!**

## **A FEW GOOD MEN & WOMEN**

### **JUDGES**

Scale judging will be done by teams of two. They will be the first to check out all the new models!

Rookie judges are most welcome. Don't worry about judging your own models!

Judges will have "head of line" privileges for their models.

Judges may accept bribes, but must file IRS Form # 666-999 in advance.

### **RUNNERS**

Runners will also work in pairs...one pair per judging team...you create your own shifts.

Runners will also have "head of line" privileges for their models.

Runners should have the ability to part eye gawking crowds with a commanding voice.

Ear shattering air horns available upon request.

### **VOLUNTEERS OF ALL TYPES**

Volunteers of any size, shape or dancing abilities are wanted...AND needed at all times.

Please check with anyone from GHQ to get an assignment.

Volunteers may request any specific task required to help our  
FAC-NATS run more smoothly.

**SIGN UP NOW !**

**YOU ARE NEEDED AND WANTED !**

## **ALSO REQUESTING AT THIS TIME**

**DONATIONS FOR THE  
FABULOUS FAC RAFFLE AND PSEUDO-POTLATCH!**

**MAKE A PLEDGE AND BRING TO THE BIG SHOW.**

**CAN'T MAKE THE FAC-NATS, BUT STILL WANT TO DONATE:**

**SNAIL MAIL YOUR GOODIES TO THE CINC.**

**4207 CROSSWINDS DRIVE, ERIE, PA 16506**

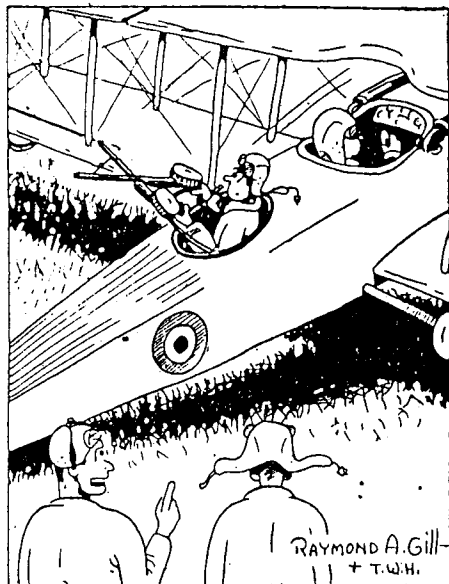
**GHQ THANKS YOU IN ADVANCE FOR ALL YOUR HELP & SUPPORT!**



# WISECRACK-UPS



Taxi in on this runway and pick up a plane load of laughs! In this department, we present a collection of jokes, cartoons, and humorous verse. For all original contributions which we can use here, FLYING ACES will pay \$1. Contributions cannot be returned. Address all letters to WISECRACK-UPS.



"Yeah, the gunner's cross-eyed. That mounting was his own idea."

## A NEW VERSION

*Student* (ready to jump): But what if my 'chute doesn't open?

*Instructor*: Well, in that case you'll be saved the trouble of repacking it.

## POEM

Elmer J. Twiddle, 6th Pursuit, World War,  
Had 58 crashes, and would have had more;  
But one dismal morning while leaving a wreck,  
He slipped in the mud, and he busted his neck.

## PASS THE BIRD SEED

*Boasting pilot*: Yep, I got what it takes! What can a canary do that I can't?

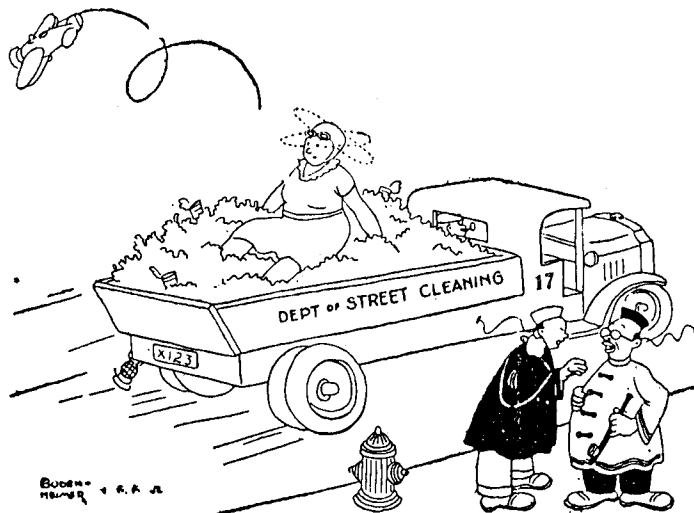
*Small boy*: Take a bath in a saucer.

## SOME PERFORMANCE!

*Flyer* (being carried off field): It was a great plane while it lasted! Took off in 3 feet, climbed 15,000 feet per minute, cruised at 360 m.p.h., and did better than 500 m.p.h. top!

*Doctor*: Sensational, I call it. What kind of a ship was it?

*Flyer*: Well, you see I put a Twin-Row Wasp in that Flying Flea of mine.



"Amelicans very wasteful! That woman good for ten year yet."

## NEW WAY TO SAY IT

*Happy girl*: Oh, I feel like a feather in the breeze!

*Airminded kid brother*: Don't use such archaic expressions. You mean you feel like a Taylor Cub in a tornado.

## ERROR

*Mechanic*: What on earth happened to your Flying Flea?

*Aviator*: My near-sighted grandfather mistook it for a mosquito and swatted it.

## SHORT STORY

"Hello there! So you want to take a hop, eh? Okay, here we go. See those cows down there? Just watch."

SCR-E-E-CH! ZO-O-O-OM!

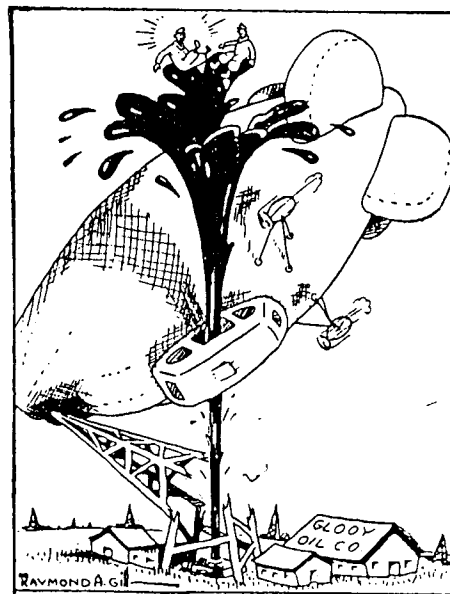
"Boy-oh-boy! Look at 'em scatter. Bet that farmer's mad. Ha! Ha! Say, here we are over town. See those two tall buildings over there? Watch this one!"

WHI-Z-Z-Z!

"Ba-bee! Right between 'em! Some fun! Whatcha holdin' on so tight for? Aren't scared are ya? Look! Those patients down in that hospital yard. Here's a darb stunt I think up."

ZOW-OW-OW-IE!

"Ha! Ha! Ha! Bet that gave 'em a thrill. Missed the hedge by half a foot! And now here we are back at the field. I'll show you a real spot landing. There! Thought we'd turn over, didn't you? Lot's of sport, huh? How'd you like it—er—what's that piece of paper you're handin' me? My license is revoked? My license? Say, who are you? The new inspector in this district? Say—wait a sec! I—ah— Well, can you imagine a dirty guy like that!"



"I TOLD you that wasn't a mooring mast!"

## MORE FAMOUS LAST WORDS IN AVIATION

"Watch me spin this prop with my eyes closed."

"This is Jimmy Doolittle's pet stunt."

"Don't worry. That other plane will get out of the way."

"I'll bet there's hardly any fog at all near the ground."

"That delayed drop parachute record will be a cinch."

**DUMB DORA** thinks a Douglas transport's cruising speed is 18,000 miles per hour. You see, a pilot at the Los Angeles airport pointed one out to her and said it was scheduled to go to New York in ten minutes.

## TOUGH LUCK

*First pall bearer* (sadly): Poor Busby! He was one man in a million.

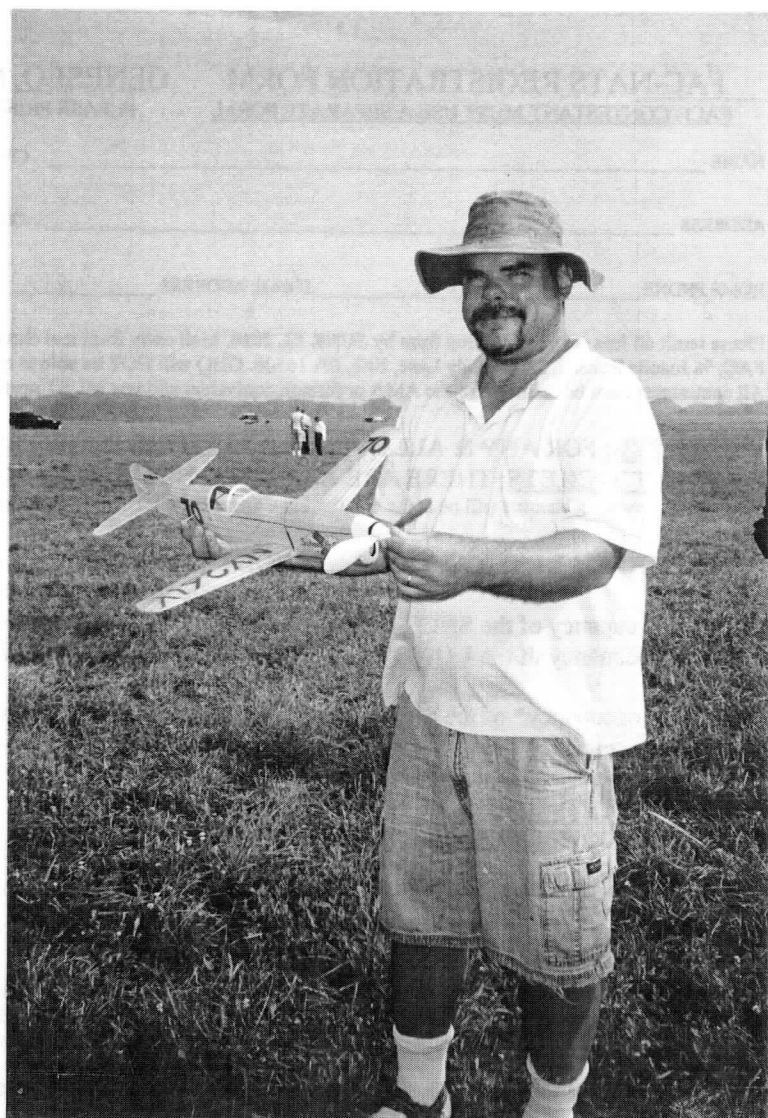
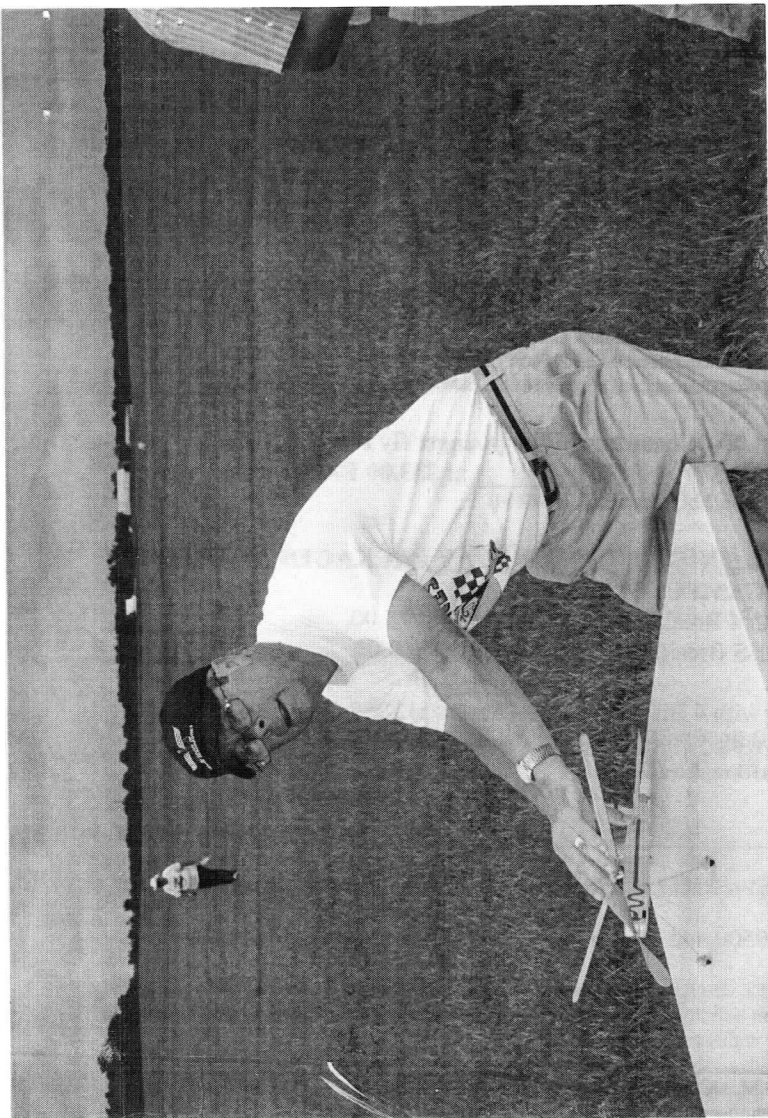
*Second pall bearer*: Yeah?

*First p.b.*: Sure. That airline company advertised that only one passenger in 1,000,000 got hurt. He was him.

## PHOOEY!

*Goofus*: How's that new plane of yours—the one you call the "Flying Opera House?"

*Woofus*: Very fine, my lad. Of course, she doesn't go very Faust, but I manage to Romeo all over the country in it.



The picture in the upper left is Harrison Knapp getting ready to fly his Embryo at the Muncie outdoor contest in 2008. The photo on the right is Chris Starleaf with his Greve racer which he was flying in the mass launch at Geneseo in 2008 NATS. Both photos were taken by Fred Wunsche.

### **STOP THE PRESSES!**

(I've always wanted to shout that.)

Just in from Don DeLoach...the Flying Aces Club official liaison to the NATIONAL FREE FLIGHT SOCIETY. Well, Don is the editor of the *NFFS Digest*, an outstanding member of the FAC and I just said so!

The *2009 NFFS Symposium* is now available for \$35.00 plus \$5.00 postage. Books are shipped via Priority Mail so two copies can be mailed for the price of one. Outside the USA orders need to add \$13.00. Check [www.freeflight.org](http://www.freeflight.org) for more details or NFFS Publications Services, PO Box 1775, Albany, OR 97321.

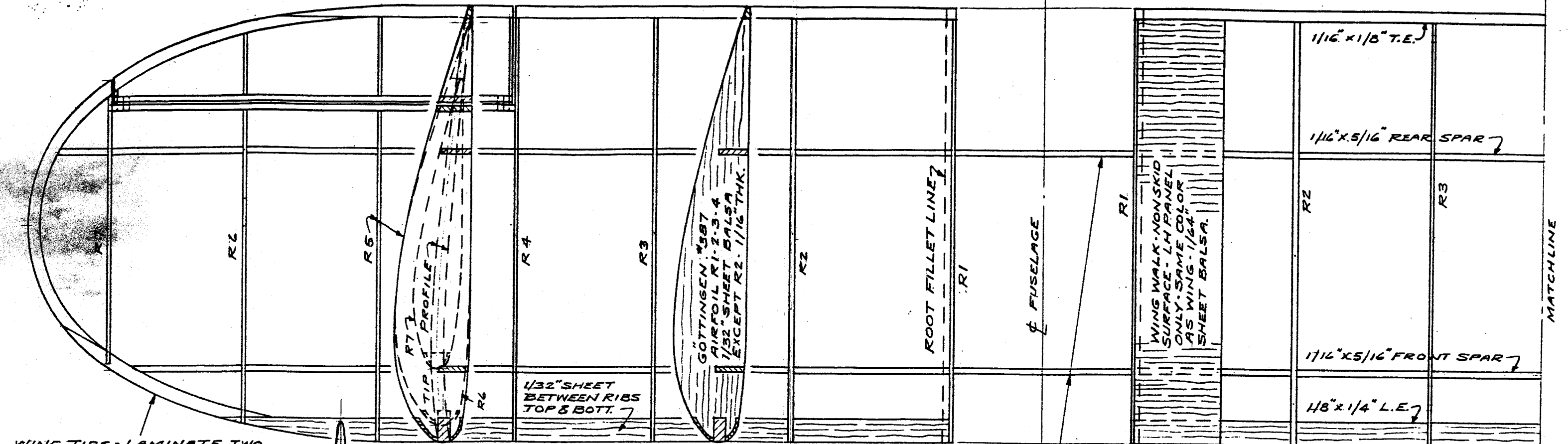
While leaving through the 192 pages, be sure to slow down when you get to the section of the MODELS OF THE YEAR. Listed among the F1C, F1D, F1Q, HLG and Coupe d'Hiver's you will find....drum roll please....B-47 FAC (Rapier) Power Scale by CHRIS STARLEAF! Congratulations Chris.

The CinC.

20







WING TIPS - LAMINATE TWO 1/16" THK. PATTERNS & FLARE L.E. INTO CONTOUR OF RIB.

SILVER ACE MODEL DID NOT HAVE ADJUSTABLEAILERONS. MARKING OUTLINE WITH BLACK INDIA INK OR TISSUE OPTIONAL.

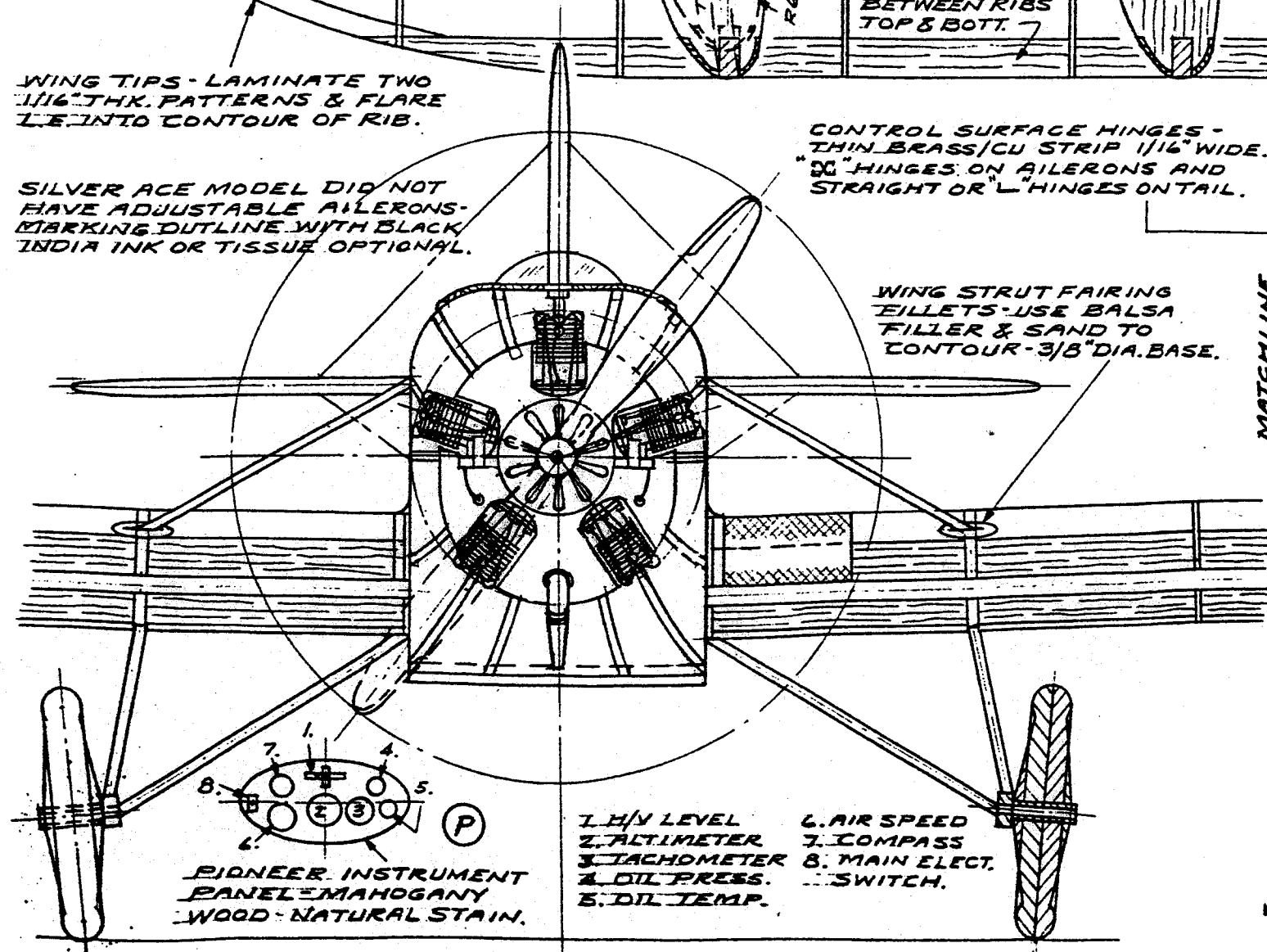
CONTROL SURFACE HINGES - THIN BRASS/CU STRIP 1/16" WIDE. "X" HINGES ONAILERONS AND STRAIGHT OR "L" HINGES ON TAIL.

WING STRUT FAIRING EILLETS - USE Balsa FILLER & SAND TO CONTOUR - 3/8" DIA. BASE.

WING SPARS EXTEND THRU FUSELAGE FOR ADDED STRENGTH. NOTCH AT ROOT & INCLINE RIB R1 FOR 2° DIHEDRAL.

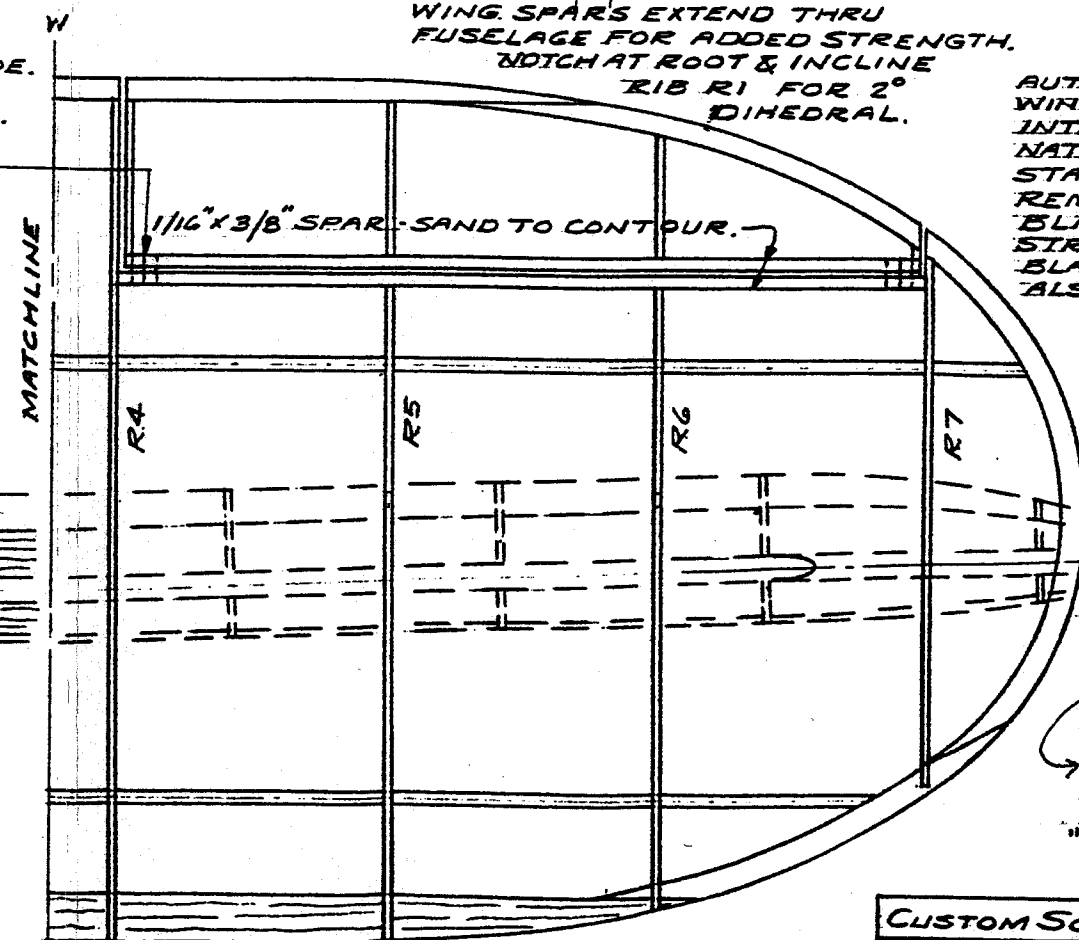
AUTHENTIC COLOR SCHEME: WINGS, TAIL SURFACES, WHEEL DISCS INTERNATIONAL ORANGE. PROP NATURAL WOOD (WHITE DAK OR WALNUT) STAIN. EXHAUST PIPE ALUMN. REMAINDER OF PLANE ENAMEL BLACK. OPTIONAL SILVER FUSELAGE STRIPE. FAIRCHILD INSIGNIA BS FIN BLACK ON SILVER B.G. PROTOTYPE ALSO IN YELLOW & BLACK SCHEME.

5° WING INCID. - SCALE ± 1-1/2° - R.P. MODEL



PIONEER INSTRUMENT PANEL - MAHOGANY WOOD - NATURAL STAIN.

1. H/V LEVEL 2. ALTITUDE 3. TACHOMETER 4. OIL PRESS. 5. OIL TEMP. 6. AIR SPEED 7. COMPASS 8. MAIN ELECT. SWITCH.



SILVER ACE INSIGNIA T.M. - CUT FROM ALUMN. FOIL WRAP - BOTH SIDES FIN ON ORIGINAL KIT MODEL. FOR CSD MODEL USE FAIRCHILD "PEGASUS" INSIGNIA SHOWN.

CUSTOM SCALE DESIGN RSTRN. CSD 1929 FAIRCHILD F-21 LOW WING MONOPLANE GENET 5 CYL. AIR COOLED ENGINE 55/60 HP SCALE: 3/4" = 1'-0" SHEET #2 OF 2 DESIGN BY: G. E. Stinchak 7-9-81

PUBLISHED BY AERO DATA REFERENCES: BROCHURE "HISTORY OF FLIGHT" MODEL AIRPLANE CO. 1929, DESCRIPTION BY C.E. STEINCHAK. "FAIRCHILD 21 MONOPLANE", SPECS. DESCRIPTION & 3-VIEWS, A.D. 1-29.

REV. 10-5-90

1 1/2" DIHEDRAL  
EACH TIP

NOTE: USE LIGHTWEIGHT BALSA THROUGHOUT, EXCEPT FOR WING LEADING EDGE, SPARS, AND FUSELAGE LONGERONS. LIGHTLY SHRINK TISSUE WITH ALCOHOL AND GIVE MODEL 2 COATS OF NON-SHRINK DOPE (SUCH AS SIG LITE-COAT). TRY TO KEEP TOTAL AIRFRAME WEIGHT AT 1 1/2 OUNCES OR LESS. IF KEPT LIGHT, THE COMMANDER NEEDS A DT!

3/32 SQ. L.E.

3/32 SQ. SPARS

3/32 SQ.

1/16 x 1/8 T.E.

REMOVEABLE NOSE BLOCK

1/8 SQ. STRIPS

POWER: Try 4 strands of 5/32" or 3/16" rubber 24" long as a start. Trim to fly in large right-hand circles under power and in the glide.

1/16 DOWEL

LARGE PECK NYLON  
NOSE BUTTON

TEN 1/16 SHEET RIBS

3° DOWN THRUST  
20° RIGHT THRUST

BIND WITH THREAD, AND GLUE

1/32 WIRE AXELS

GEAR LEGS ARE BAMBOO SCRAPED  
TO 1/20" TO 1/16" DIAMETER, GLUED INTO  
HOLES IN FUSELAGE.

1 1/4 DIAMETER  
BALSA WHEELS

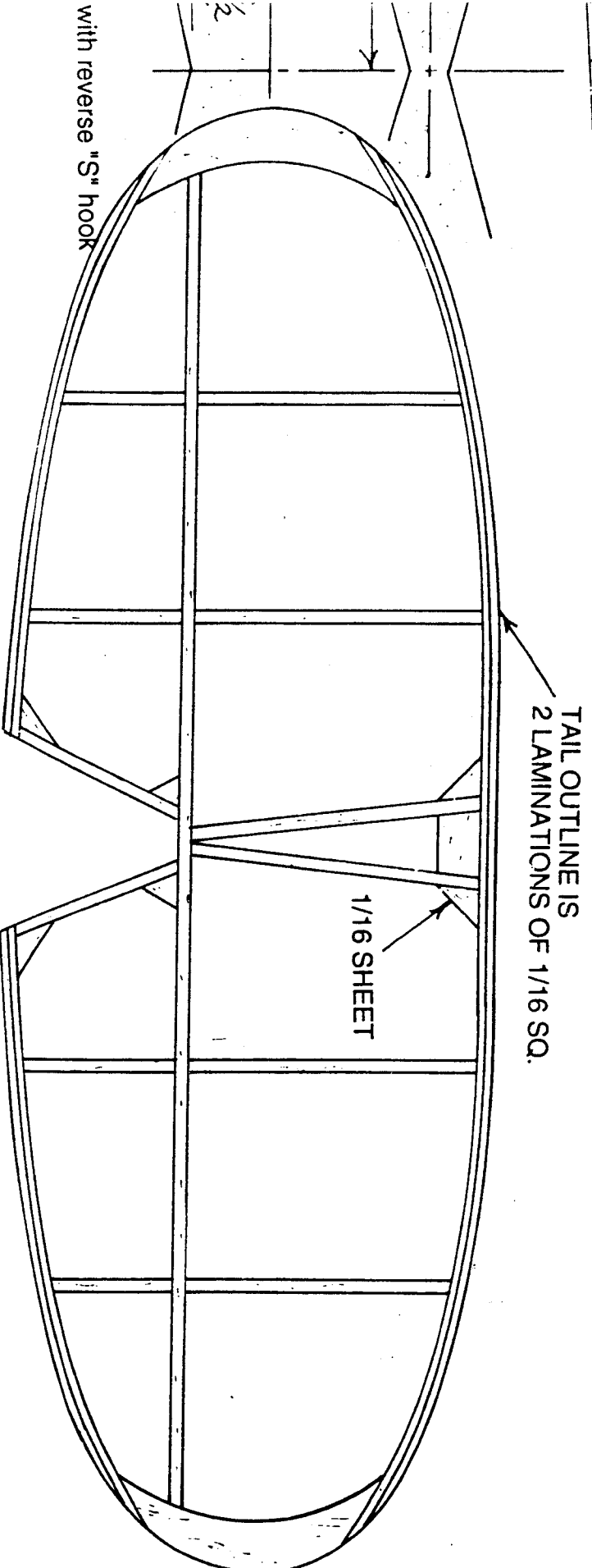
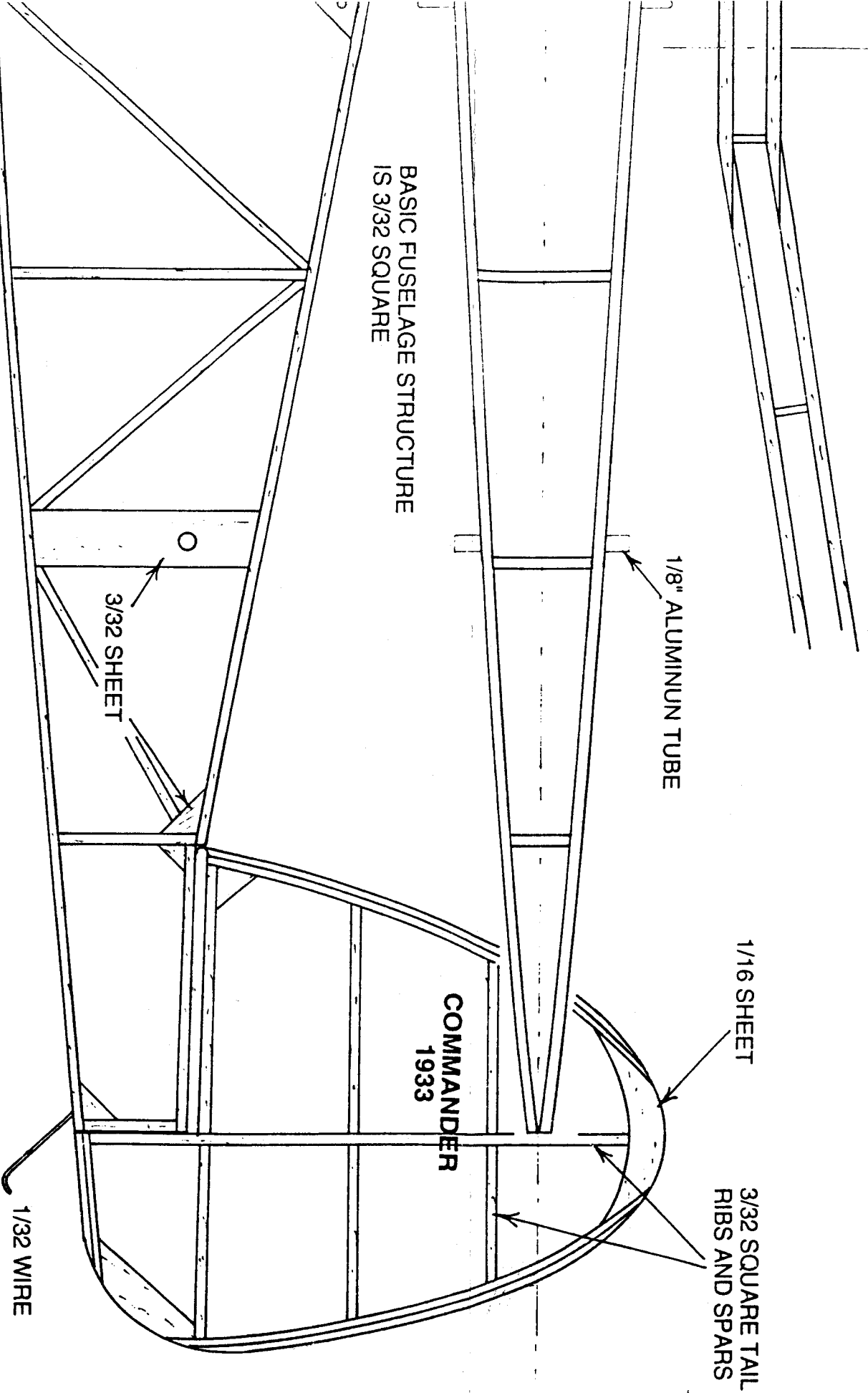
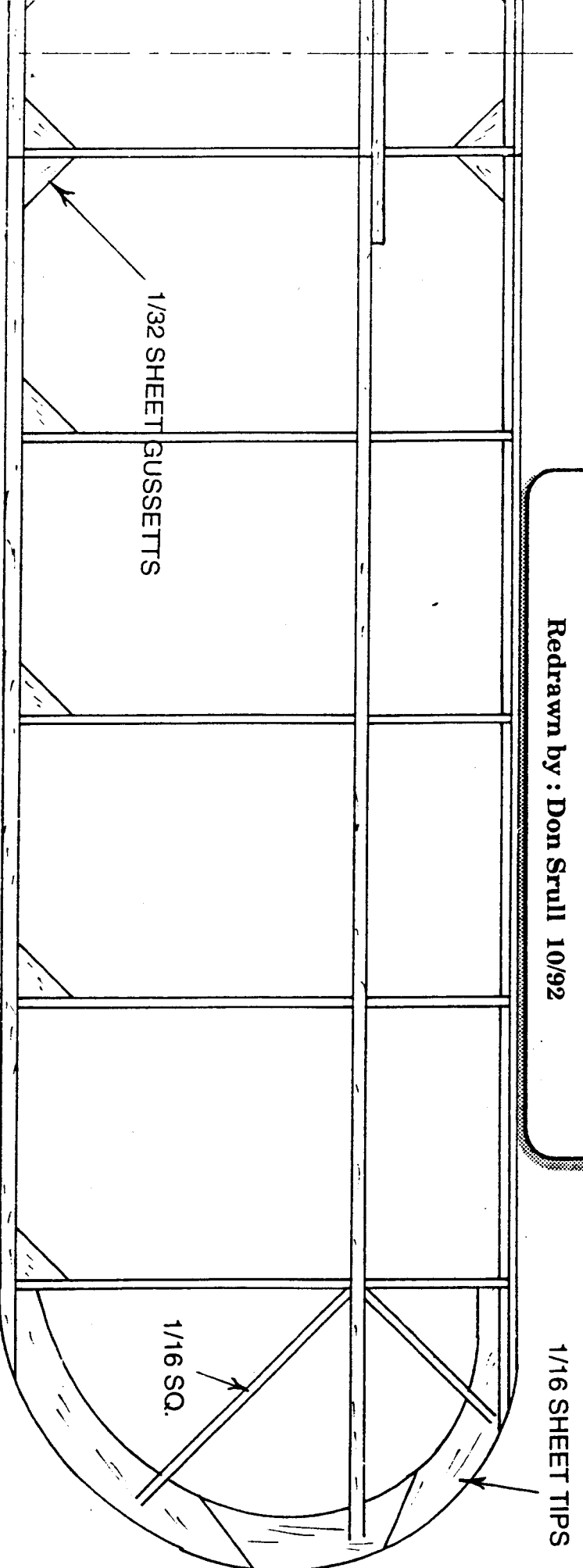
Use .045" wire shaft with re

Carve prop from 1" x 1 1/2" x 9" balsa prop  
block, or use Peck 9 1/2" plastic prop  
trimmed to 9" diameter.

Remembrance of the  
1933 CONSTRUCT-A-PLANE CO.  
**COMMANDER**

By : Bill Winter

Redrawn by : Don Strull 10/92





# The Flying Ace Moth

For a neat cabin job which will stay in the air with the best of them, get yourself a load of this F.A. Moth, a ship which is strictly Herb Spatz' own design. His original model has stayed aloft three full minutes. So go to work, modelers, and see if you can put together a duplicate that'll beat Herb's time.

\*\*\*

**W**ELL, fellows, again this month FLYING ACES presents a real winner, both for looks and for all around flying and soaring ability. This model of mine has already flown for three minutes. In addition, the ship is exceedingly simple to construct, so work patiently and you'll have many more hours of enjoyment ahead of you.

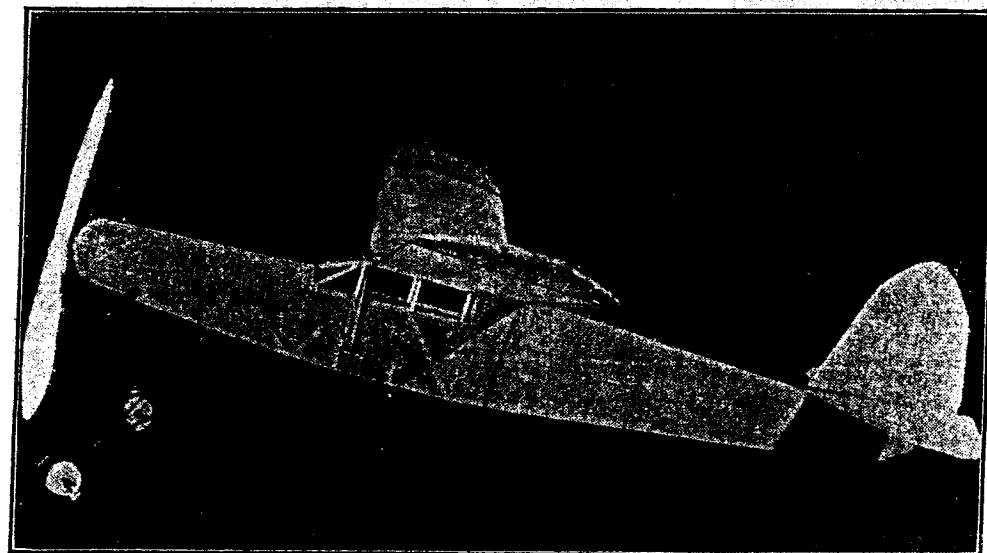
## FUSELAGE

**T**HE first step is to join Plates 1 and 3 at A-A. The fuselage is constructed of 1/16" sq. medium hard balsa, excepting the longerons and such members as are marked otherwise on the plan. These are 3/32" sq. medium balsa. Make sure that the longerons all have the same degree of hardness, or the body won't be straight. Build both sides and don't use too much glue—just enough to keep the members together. When the sides are made, glue in the top members, the size of which can be obtained by doubling those on the plan. Be sure to get these straight.

Cut formers 1-4 from 1/16" sheet balsa and affix in their respective places. Cement the 1/16" sq. stringers in place and put in the two windshield pieces. Next, take a block of 1/2" by 1 1/4" by 1 1/4" balsa and cut it down to fit the nose. Run a piece of 1/16" O.D. aluminum tubing through it and cement. The rear motor mount pieces of 1/16" by 3/16" are glued into the body as in Plate 3. The crosspiece of 1/16" by 1/8" is cut to fit in the notches between the mount pieces. The rear hook of .028 music wire is looped around the crosspiece and cemented securely. The entire unit is then cemented into place between the mount pieces.

## TAIL AND LANDING GEAR

**O**UR rudder (Plate 3) is composed of 1/16" sq. balsa for the rudder post and ribs. Details are on Plate 3. The stabilizer is built as shown in Plate 2, the rib shape



A view of the Moth as you'd see her poised on the line, waiting for some one to wind up the prop. A pretty classy looking job, isn't she? From this photo it isn't hard to imagine her soaring away through the air on one of her long flights.

## By Herb Spatz

being obtained by sanding the ribs down from the spar as shown in the cross section given on the drawing.

The landing gear is bent from .034 music wire. The front struts are 4 1/2" long. The axle is bent on the front struts. The latter are bound to the body at station 3 and cemented. The rear struts can now be formed. The angle the front struts should have can be obtained by checking with the plans. The rear struts can now be measured from station 4 to the axles, then bound and glued in place. Slip a pair of 1 3/8" diameter wheels on the axles and bend the ends back.

## MOTOR AND WINGS

**T**HE prop is carved from a block of 3/4" by 1 1/8" by 8 1/2" balsa. Any measurements desired may be obtained by doubling the dimensions on the plan (Plate 1). Cut away the shaded portions on the plan and carve very carefully. Sandpaper the prop as smooth as possible. A free wheeling device should be used for maximum efficiency, the builder choosing one of his own liking. The prop shaft is bent from .028 wire and slipped through the noseblock after several washers have been slipped on. For power use 4-6 strands of 1/8" flat rubber.

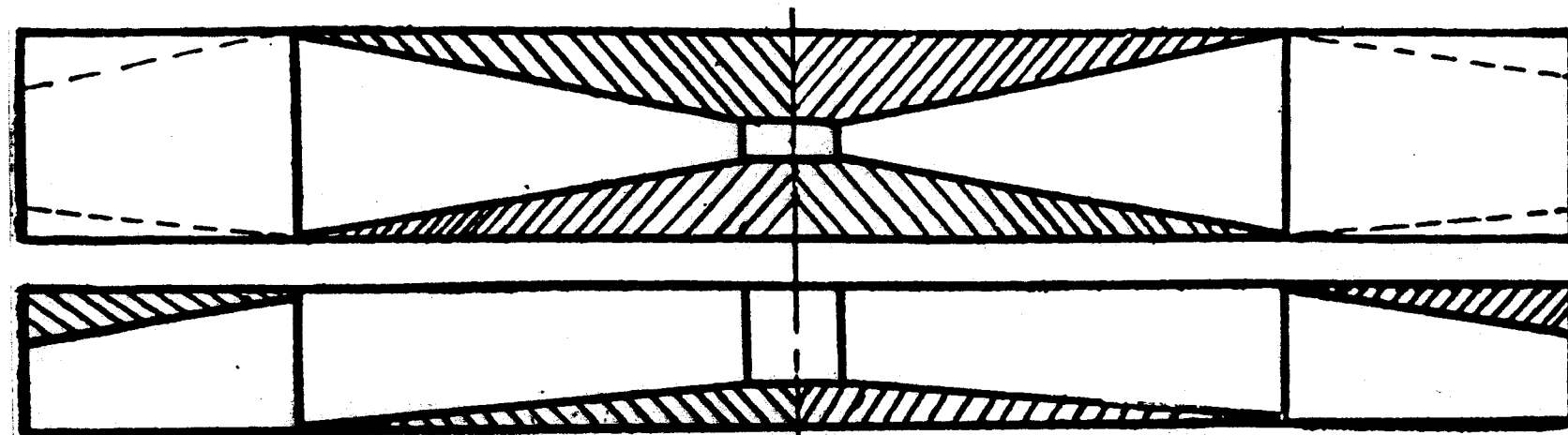
For the wing, join Plates 2 and 3 at P-P. Lay out the leading and trailing edges. Make 14 ribs of 1/16" sheet balsa and put them in the proper places. Cut out the tips and put them in. The side of the wing shown is the right. To make the other side, take a sheet of white paper and place it under the plan. Then take a sheet of carbon paper and place it black-side up under the sheet of paper. Then trace.

Before putting in the spar, crack the leading and trailing edges at the center section (shown on Plate 2). There should be 1 1/2" dihedral at both tips. Glue in the spar. Shape the leading and trailing edges to conform with the airfoil. Sandpaper them smoothly.

## ASSEMBLY AND FLYING

**C**OVER the body and wing in sections. The tail group may be covered in two pieces each. Use dope as the adhesive. Cover the cabin with cellophane. Pin the surfaces down and spray everything with water to shrink the paper. The builder may use his own discretion as to what color he will paint his model. The original was colored yellow and green.

After everything is dry, give the ship two coats of dope. Glue the rudder to the rear of the body, put on the wing and stabilizer with small rubber bands, and place an incidence block beneath the stabilizer



**T**HE prop is carved from a block of 3/4" by 1 1/8" by 8 1/2" balsa.

## CUT AWAY SHADED PORTIONS

## The F. A. Moth

(Continued from page 56)

spar. Next put the prop shaft on the rubber motor, and you are ready for testing your "sky chariot."

Test the ship in an open field. Adjust for a flat glide. If the ship stalls, move the wing back. If the ship dives, move the wing forward. If it tends to bank sharply, turn the rudder opposite the bank; that is, set the rudder so the plane will turn right if it banks to the left sharply, et cetera.

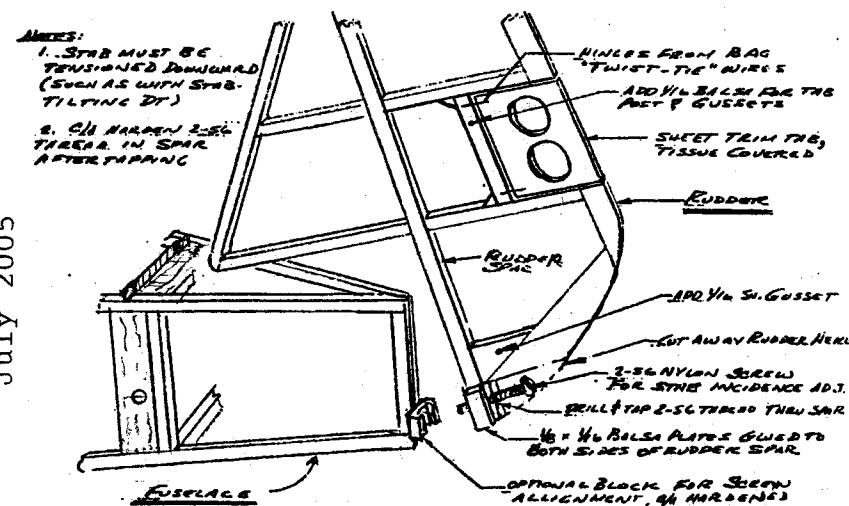
Now for the greatest thrill of model aviation, a first flight. Wind about 60-70 turns and launch. The ship ought to climb gently, circle to the left with torque, and glide in flat. If she doesn't do this, adjust her again. If you have any trouble with the adjustments, write the author in care of FLYING ACES, enclosing a stamped, self-addressed envelope. After you have made final adjustments, oil up your trusty winder, give 'er about 100 winds with a 4-1 winder, and watch 'er play hide and seek in the clouds.

With apologies to the editor of the newsletter from which I got this, I've lost the reference, but it is worth folks seeing

This construction technique was submitted by George Mansfield. Not shown is the horizontal stabilizer upon which would be glued the fin/rudder assembly. The stabilizer would be hinged at its leading edge.

Reprint courtesy THERMALIER

July 2005



MODIFICATIONS FOR RUDDER AND STAB INCIDENCE ADJUSTMENTS IN F.A. MOTH OR OTHER MODELS WITH ONE PIECE RUDDER/STAB ASSEMBLY

## PLATE 3

## The F. A. Moth

CROSSWINDS EDITION BY B

7 DEC 1941 + 68

AUGUST, 1937 FLYING ACES

FOR BASIC F.A. MOTH, SEE A PECK POLYMERS/ A2Z CORP. KIT.

SUBJECT TO FAC(TWO BIT)OLD TIMER RUBBER POWER RULES

COURTESY AEROMODELLER FEBRUARY 1987

$\frac{1}{16}$ " SHEET

---THEY ADVERTISE---LET'S PATRONIZE---

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ERIE, PA 16506

CAMPBELL, S CUSTOM KITS  
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ANDERSON, IN 46016  
1-765-1749

**A2Z**  
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PP031

**BIND WITH  
THREAD AND GLUE**

STEEL WHEELS  
VIA "8/3-1"

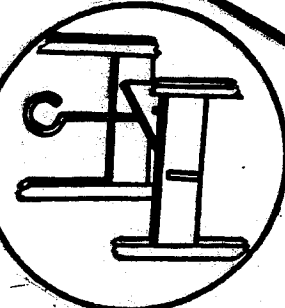
$1\frac{1}{2}$ " dihedral at both tips.

The original was colored yellow and green.

place an incidence  
block beneath the  
stabilizer spar.

D/T STAB. MOUNT IS A BUILDER OPTION

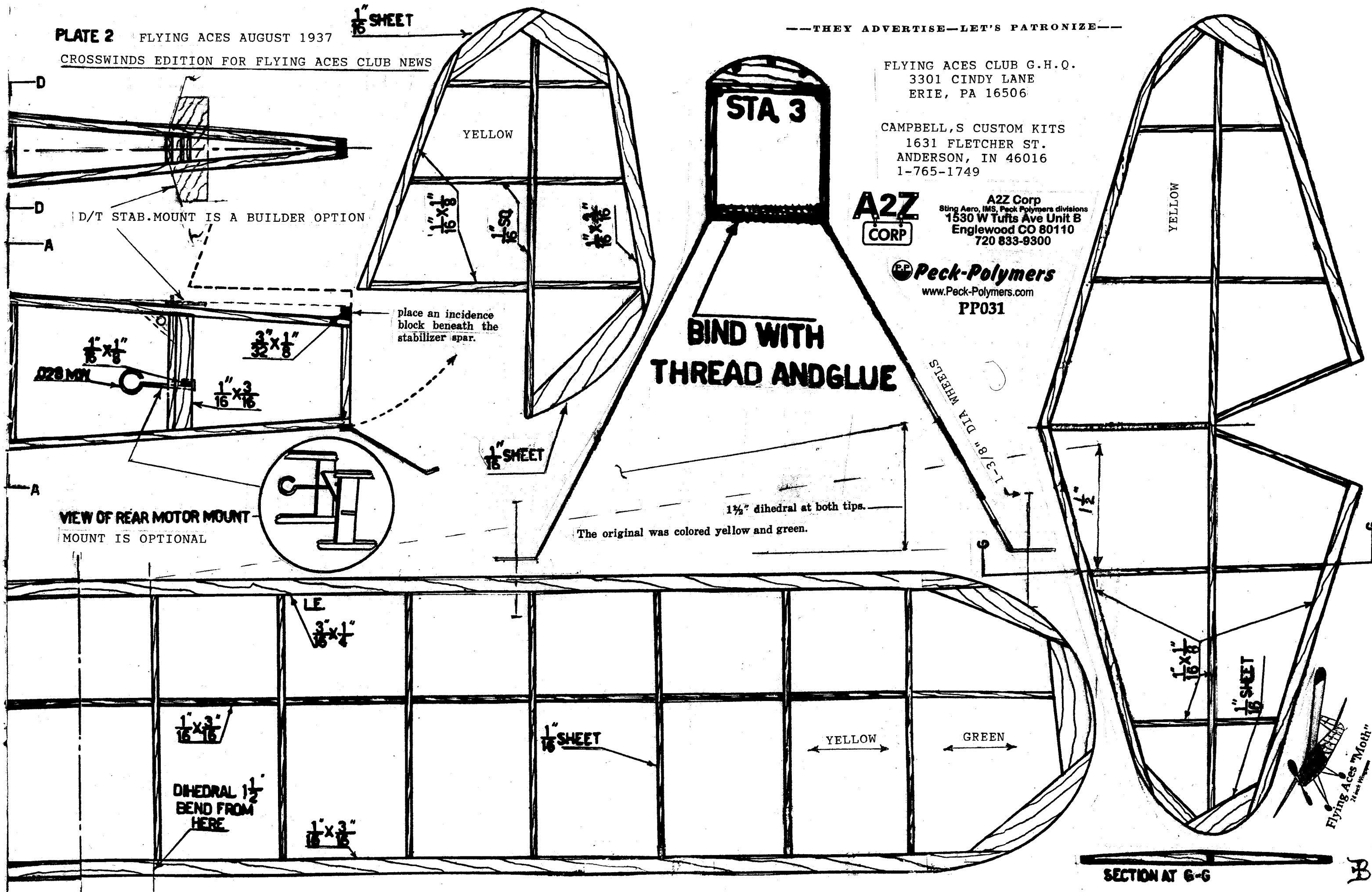
VIEW OF REAR MOTOR MOUNT  
MOUNT IS OPTIONAL



DIHEDRAL  $1\frac{1}{2}$ "  
BEND FROM  
HERE

SECTION AT G-G

Flying Aces "Moth"  
24 inch wingspan



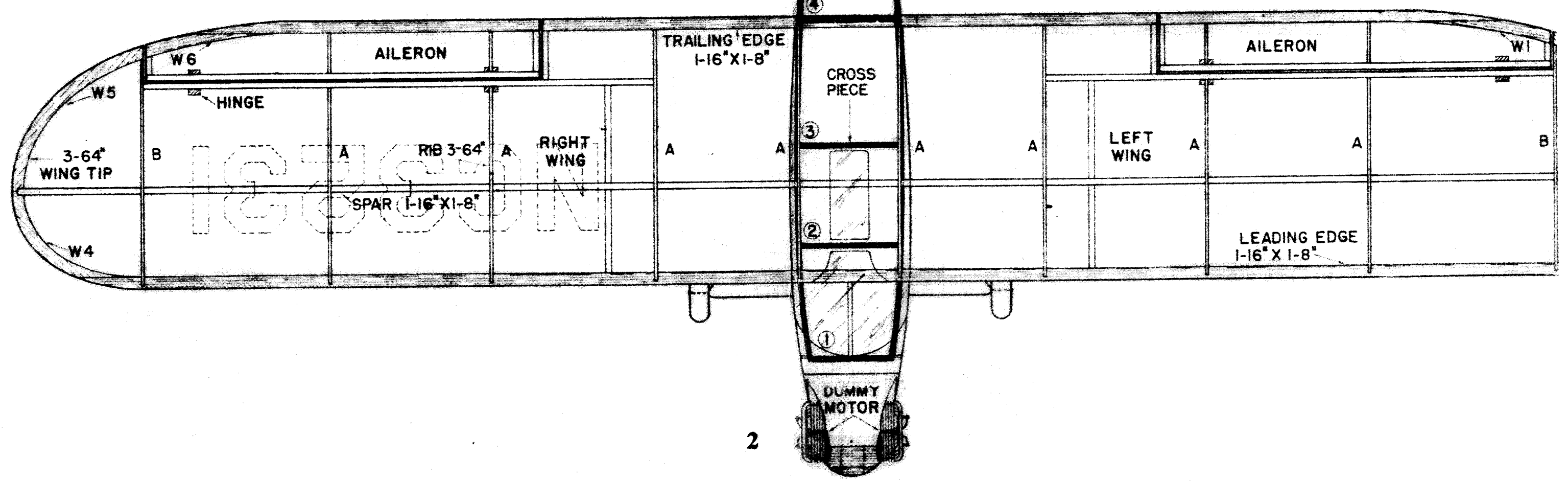
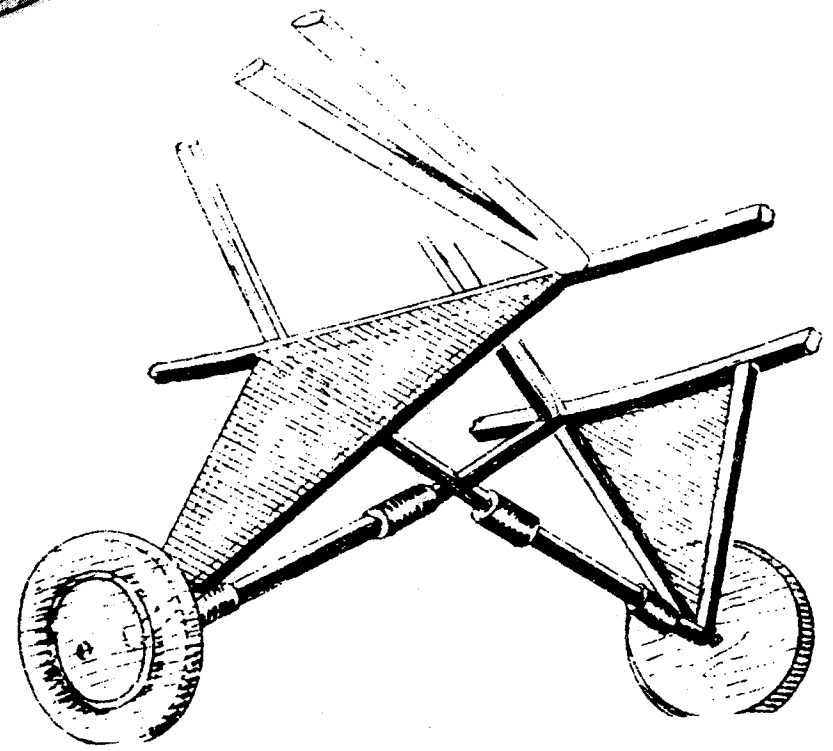
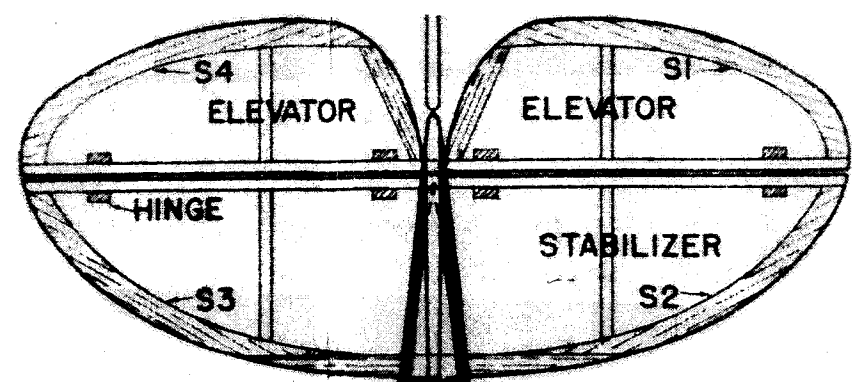
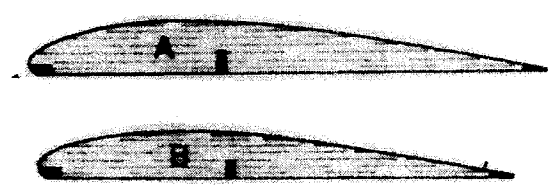
# 17" 1938 CUB

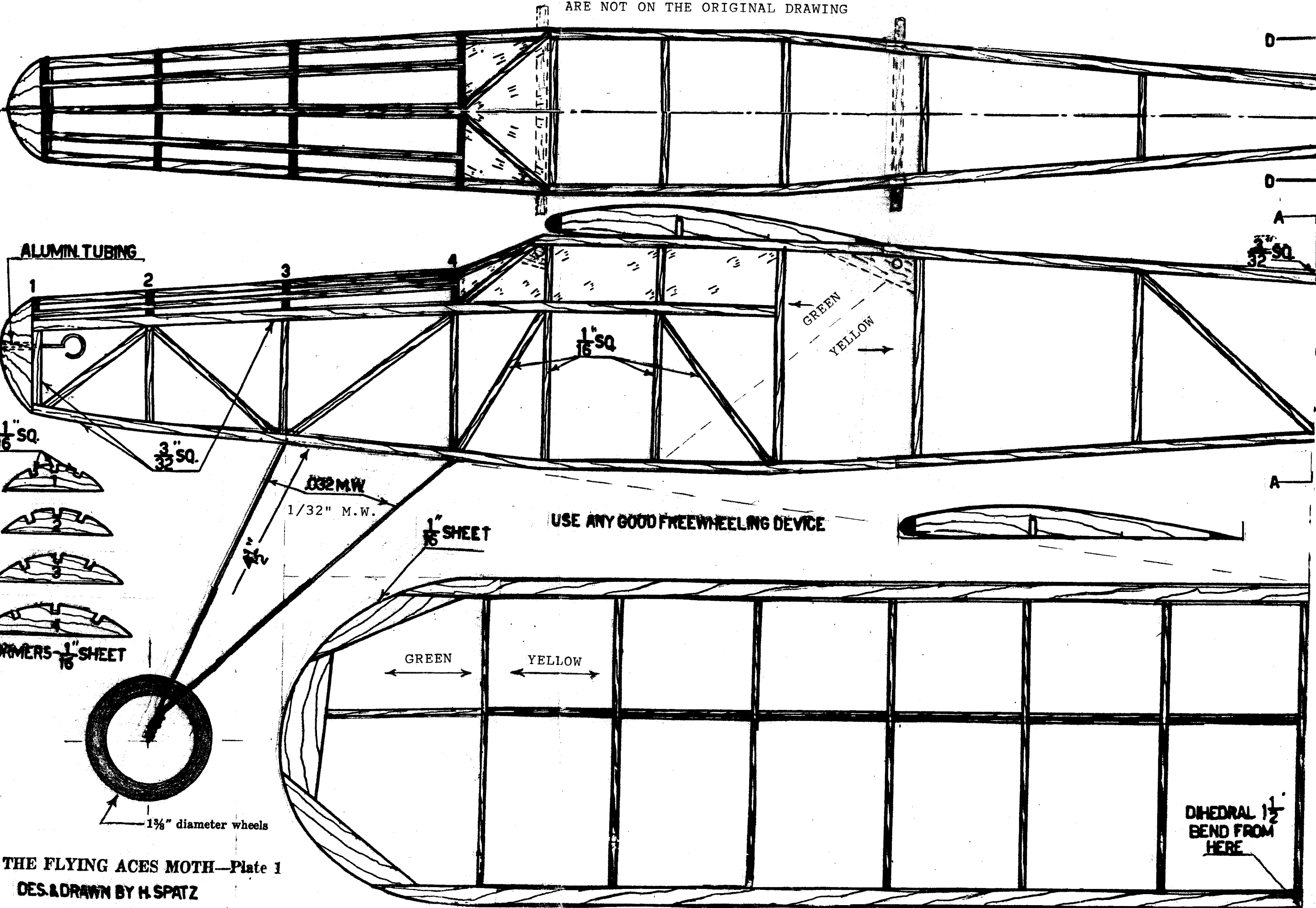
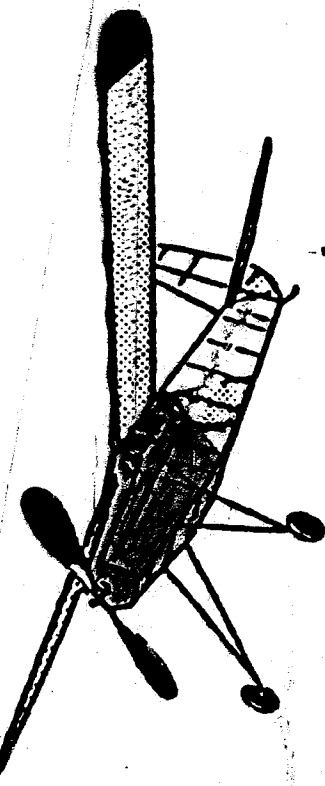
*Sport*  
FLYING SCALE MODEL No 1703



# NC3231

# NC3231





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