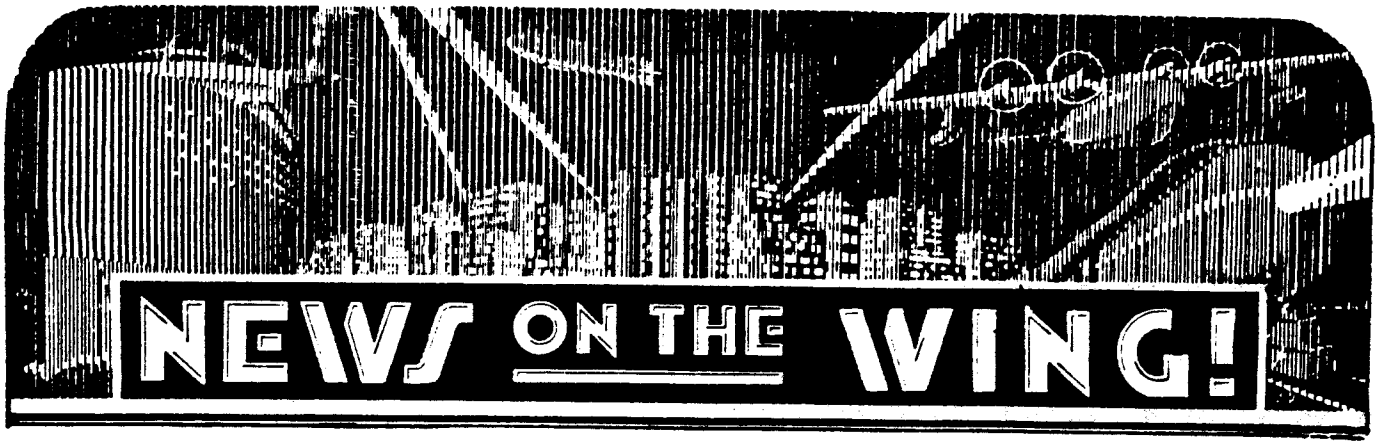
FLYING ACES

Club News

ISSUE #202-128 Nov./Dec. 2001



Tom Butler has given us another fine action drawing for this issue's cover, pretty neat! Right? Thanks Tom. Also our usual thank you' go to all of the other Clubsters who helped to make this issue possible.

The plans this time come from Nate Sturman (Polikarpov I-15), George Nunez (Starlet), and the Verville Air Coach by Selley Mfg. Co. And the Aeroneer M.A.N. April 1941, came from the files here at GHQ.

Not too much to report this time except that we will be tweaking the rules a bit in the next issue, nothing to get too excited about though. One thing we will be doing however is to allow the landing gear in the Modern Civil Aircraft mass launch event to be built in the up position. So if you have been putting off a model for that event you now have time to get it done before the next flying season. (This rule change will make R.Z. happy)

By the time the next issue of the newsletter reaches you we should have all of the details finalized for you. We would like to replace some of the events that we have been having all of the time so if you have any suggestions drop us a note and maybe we can include some of your favorite events. If you do though, please do so as soon as possible, we'd appreciate it.

BUILD---FLY---WIN.....EFF---AAA---CEEE!!!!!

Lin

Col. Lin Reichel, CinC--FAC

WANTED
A 3-view of the Bellanca XSOE-1.
Wayne Love, 108 Bush Gardens,
Alden, NY 14004.

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 who believe in the spirit of the FAC.

easy built models

Books by Don Ross
Flying Models 19.95
Rubber Powered Model... $14.95 ppd.

12 JETEX or Catapult scale kits $12 ea.

JX04	Supermarine Swift	14.5"
JX06	DH110 Sea Vixen	19"
JX08	Douglas F4D Skyray	13.5"

105 Old Time Rubber Powered Kits

FF03	Bell Airacobra	35"	$15
FF05	Jr. Commercial	25"	$11
FF09	Rainbow	36"	$15
FF11	Miss Canada Sr	36"	$15
FF18	Ryan STA	20"	$9
FF24	Leopard Moth	22"	$10
FF63	RAF SE5a	18"	$9
FF66	P51 Mustang	28"	$13
FF70	Vought Corsair	28"	$13
FF73	Curtiss Hellcat	28"	$13
FF78	Lysander	36"	$15
FF89	Curtiss Hawk	35"	$17.5
FF93	Baby Moffett	32"	$14

Famous Flyer Rubber Powered

EB05	Zero	20"	$15
EB13	Fokker DVII	17.5"	$15
EB14	Spad SXIII	16"	$15

12 Display Kits (build like rubber powered)

D2	Hudson Bomber	30"	$18
D4	B-25 Mitchell Bomber	38"	$55
D7	Hampden Bomber	30"	$18
D8	Bristol Beaufighter	30"	$18
D9	Silver Dart	24"	$15
D10	Wright Flyer 1	24"	$15
D11	Bleriot XI	16.5"	$15
D12	Taube	23"	$15

New Easy Built Lite Tissue
26 permanent colors
Standard colors are $0.45/ sheet
Silver and Gold Metallic - $1/ sheet
Also Balsa, Props and music wire

Magna Board
Includes 20 magnets and galvanized steel building board - $16.95

Color Catalogs - $3
Shipping $5 per order

1851 Dutch Road, Fairview, PA 16415
ph. 814-474-9110, fax 814-474-9111
See our planes at
www.easybuiltmodels.com
or your nearest hobby shop
Dealers Welcomed - PA residents pay 6% tax

CONCERNING HENRY STRUCK

Word that renowned modeler, Henry Struck, had passed away proved erroneous. According to John Whittles, who has escorted him to the last contests he attended, Hank *is* alive. He has suffered at least two strokes and is currently residing in a rest home in the state of Maine. Unfortunately, the strokes have left his memory impaired and our beloved friend has little or no recollection of his earlier life.

If the box on the right has the dreaded RED "X" in it, it is time to renew your membership which includes the newsletter. Cost is $15.00 per year in the United States and Canada. Overseas the cost is $20.00 per year. Six issues per year published every other month. This is your last issue under your old membership. Please make checks payable to "Flying Aces". Send to FAC-GHQ, 3301 Cindy Lane, Erie, Pa. 16506.

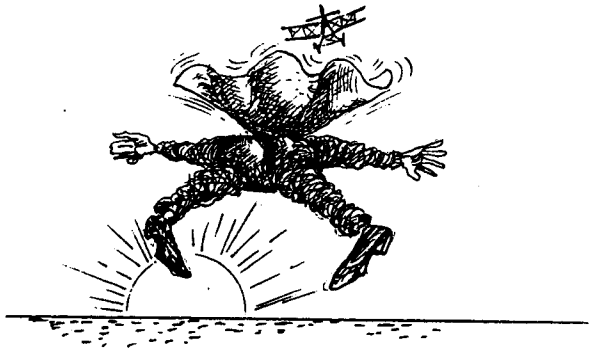
GONE WEST

we have lost some more of our devoted FACers since the last issue. Gone are Dale Smith, George Aldrich, Doug Buchanan, Jerry Tustin and Joe Deppe. We did not know Dale or George but they were long-time members of the FAC. Doug Buchanan was a favorite of ours here at GHQ and a long-time Clubster. He was also one of the main-stays of the Maxecuters from the D.C. area.

Jerry Tustin was one of our own right here at GHQ. He has been battling cancer for a couple of years and it finally took him from us.

Joe Deppe was the man with those great basswood strips that he sold at Geneseo at the FAC contests as well as through the mail, excellent products. Joe also was a big help at the Geneseo contests as well. He has helped with the scale judging there working with Vic Didelot in judging the Jumbo and Giant Scale entries. Joe passed away from a massive heart attack in his sleep.

We wish to express our condolences to all of our cherished friends families as well as their many friends.



PENN VALLEY HOBBY CENTER
837 W. Main St. Lansdale PA 19446
(215) 855-1268, 368-0770, Fax (215) 855-3976

An "OLDTIME MODEL SHOP"
Founded 1961
Bill & Jean Shive, Owners
30 yrs in the Hobby Business 68-98
Store Hours
Mon to Thurs 3 - 7 PM
Fri 12 - 9 PM Sat 10 - 5 PM
Closed Sunday

OVER 25,000 HOBBY ITEMS IN STOCK
SPECIAL ORDER - PHONE ORDER - MAIL ORDER
STORE WIDE DISCOUNTS
Web Site: www.pennvalleyhobbycenter.com
E-Mail: pvhc1268@fast.net

FOR SALE---FRANK ZAIC YEARBOOKS

1. 1951-1952
2. 1953
3. 1955-1956
4. 1957-1958
5. 1959-1961
6. 1964-1965
7. Model Glider Design by Zaic
8. Circular Airflow by Zaic
9. Model Aeronautic Encyclopedia Vol. I-Zaic
10. Model Aeronautic Encyclopedia Vol. II-Zaic
11. Airfoil Sections by John Malkin

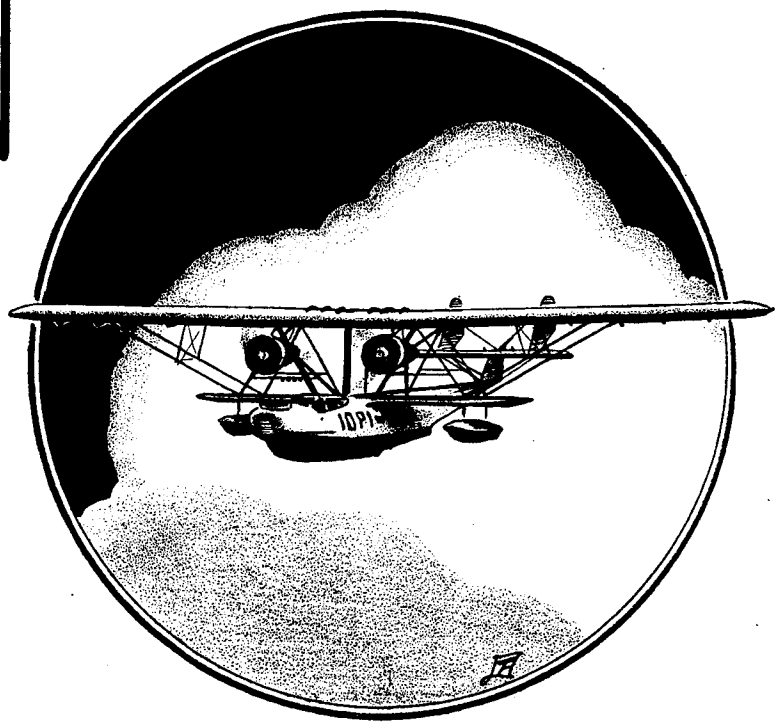
Ten Dollars each, postpaid. Lin Reichel, 3301 Cindy Lane, Erie, Pa. 16506.

YESTERYEAR PLAN SERVICE

Over 200 clean, sharp legible plans from new master transparencies, with all rib and former patterns. 15 more plans just added. Copies of the plan list are available for $2.00 each.. Yesteryear Plan Service, 3517 Kristie Dr., Erie, Pa. 16506.

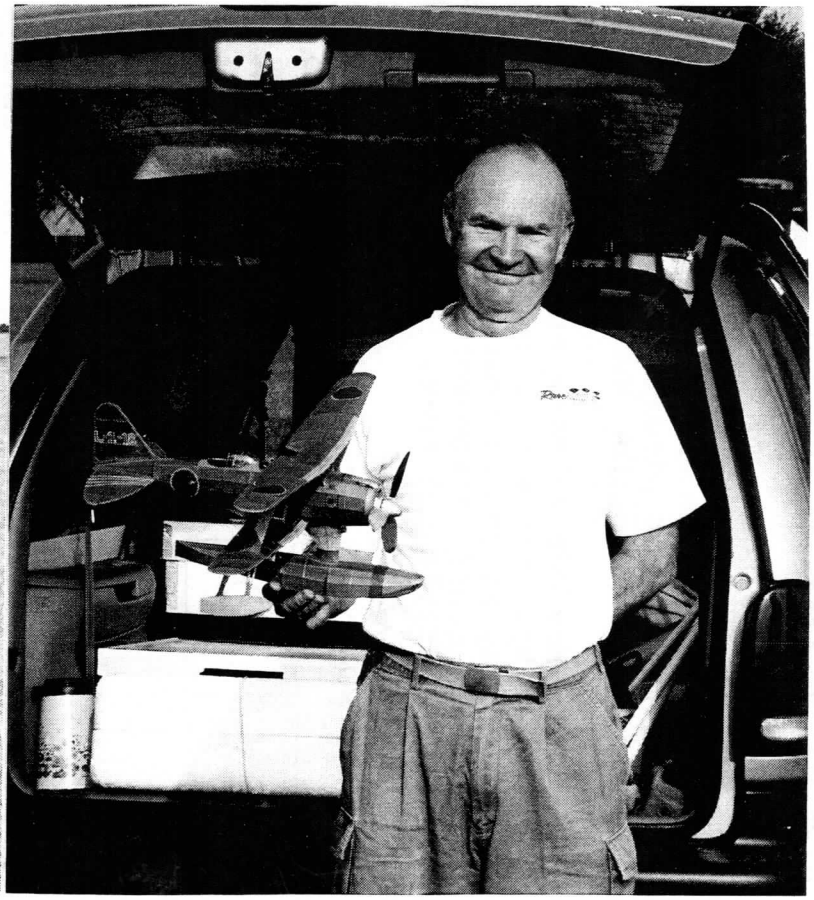
WANTED

Plans for the Spartan Executive. Lenny Archibald, 2596 Pangborn Rd., Decatur, Ga. 30033.



The P2Y1—A pathfinder of the Pacific.

Here is Vic Didelot judging Tom Hallman's DH-2 at Geneseo. Why so serious Vic? Great model! Photo by ???



Two more photos from our "ACE" photographer Fred Wunsche. That's Don Lang on the left with his Marcoux-Bromberg and Pres Bruning on the right with his Mitsubishi "Pete" F1M2. Plan for a Peanut version in the last issue.

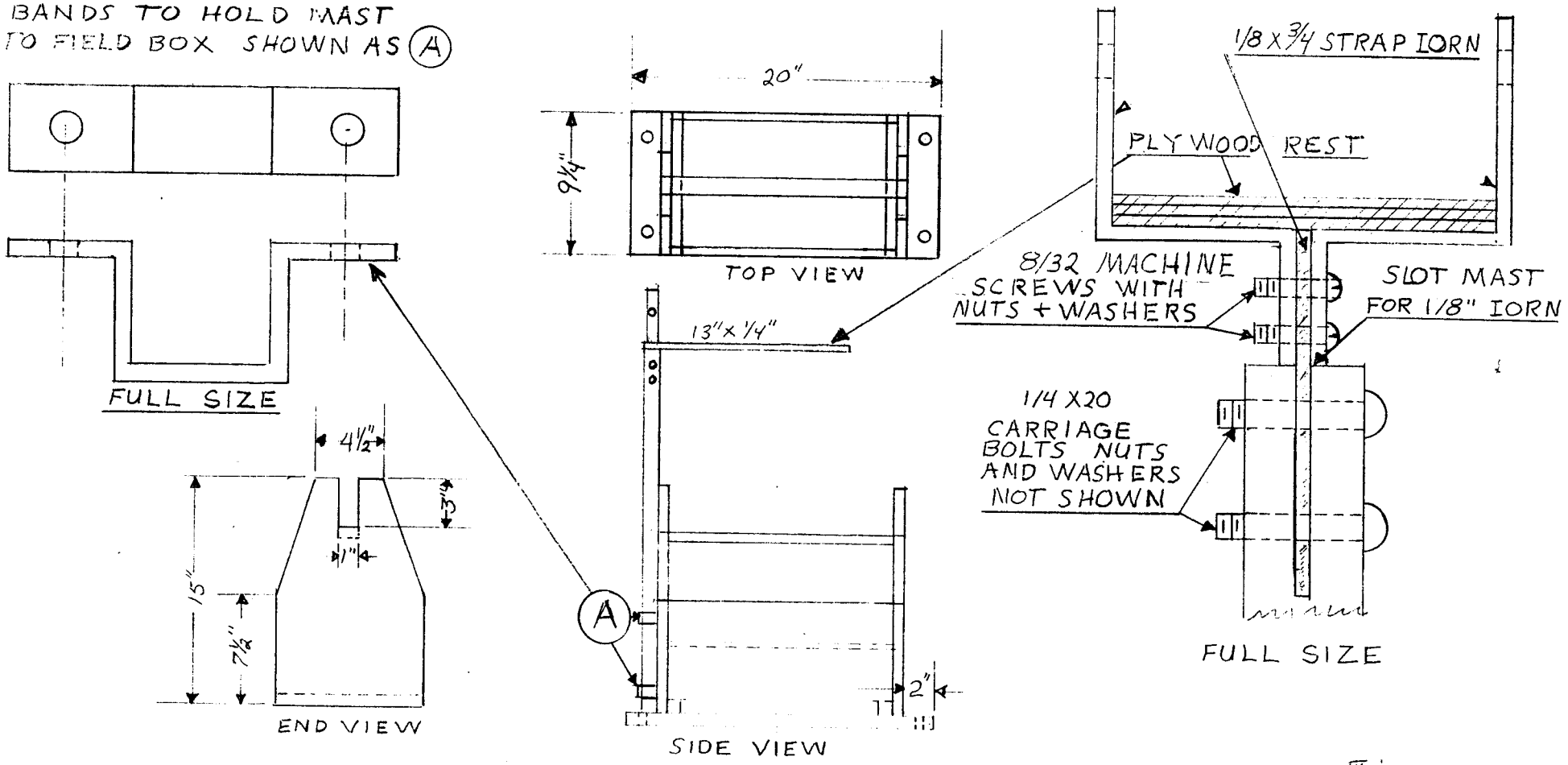
COMBINATION FIELD BOX AND STOOGE

The box is drawn to a scale of 1½" to the foot and was made out of 3/4 pine board. The four holes shown in the base of the box are for 12" spikes to hold the box in place when using the stooge. I never use more than two.

The sides of the box can be made out of ¼" plywood to save weight. The box is deep enough for a lift out tray if you so desire. Winder, spikes, and heavy stuff in the bottom and the small stuff in the lift out tray.

The mast, when not in use, is layed across the box in the slotted ends and rest on the handle. The height of the mast may be varied to suite the user, the same is true of the plywood rest.

I used glue and wood screws to assemble the box, all the hardware can be found in any home repair store. The strap iron is easy to work. You will need a vise, hacksaw and hammer, also a drill (electric).



This drawing has been reduced to 78% of the original.

E.J. MC QUAID III 3-28-93

CLYDE PANGBORN

Air-conqueror of his country, of continents, oceans, and the globe, the Wing Commander of Bill Barnes' Air Adventurers Club blazes trails in aviation to-day. He's testing his new Uppercu-Burnelli monoplane now for the greatest flying feat of all—a single hop around the earth. Twenty-two years after he was born in Wenatchee, Wash., in 1896, he left the ground as an Army flier, and he has stayed in the air much of the time since. He has almost 15,000 flying hours to his credit. He earned them as barnstormer supreme—stunting, and carrying as many as 1,000 passengers a day—as the only aviator to hop both the Atlantic and the Pacific, as endurance-record holder in an open-cockpit plane, as London-to-Melbourne racer, and as around-the-world flier. We hail him as a fellow Air Adventurer!

AIR TRAILS
Oct. 1935

Bulkhead/keel fuselage alignment trick

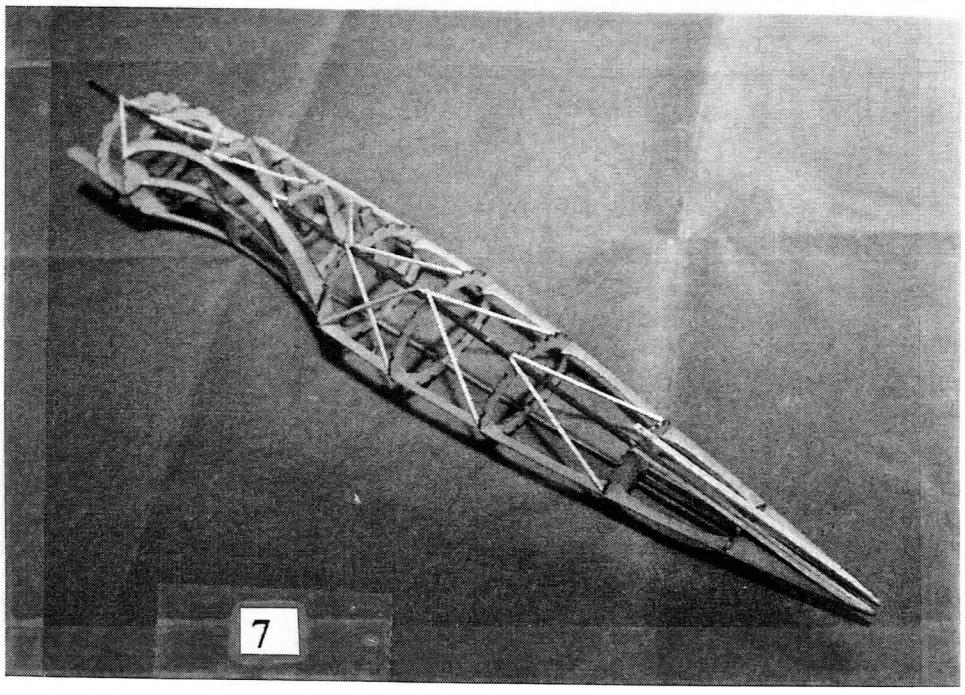
Are you tired of banana biased fuselages? Do you stay away from Thunderbolts, Pfalzs and Lockheed Vegas as being just too difficult getting the fuselage right. Are your fuselage alignment jigs taking more time and material than building the model?

Here is a way to simply and effectively maintain alignment on keel/ bulkhead fuselages:

Start with a good flat work surface, that means flatness within a 1/16 of an inch over the building area. Pin the top and bottom keels down in the conventional manner. Align all of the bulkheads perpendicular to the work surface using a small square and glue to the keels. Carefully inset the side keel starting from the rear; maintain bulkhead perpindicularity while gluing each one to the side keel. Now locate a bunch of scrap, useless 1/16 sq. strips that you've been saving for lord knows what and proceed as follows: Starting at the rear of the fuselage tack glue a 1/16-sq. piece from the top keel/former joint to the next (left) former's side keel joint. Repeat for the bottom keel/former joint to the next side keel joint. This should result in a "v" truss locking in that section. Working to the left complete all formers in like manner so that when you are done the left fuselage side looks like it has horizontal "vs" from front to rear. When all is dry remove the fuselage side from the board and notice how true and rigid the whole thing still is. Add all of the right half formers making sure of squarenes to the keels and parallel with its mate. Install the right hand side keel again starting from the rear. Glue to each former after assuring its alignment. You may want to add a few stringers to both sides to further hold everything before removing the "v" bracing. Cut away all of the bracing sticks and viola!! A fuselage that doesn't compete with the Chiquita Banana. This sure beats the old fashion ways to achieve a true fuselage without all that non-productive work.

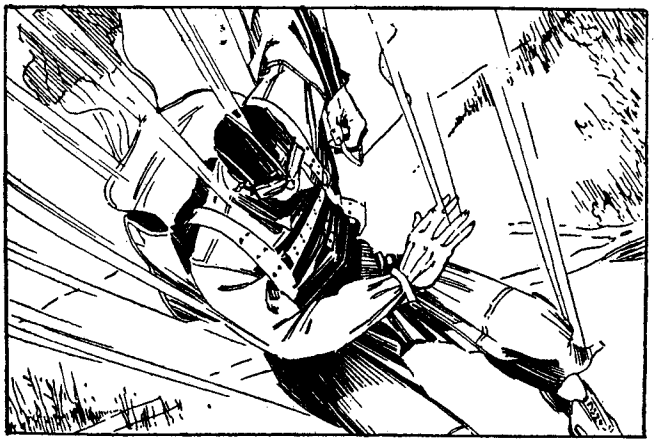
Let's see where did we put those plans for that Martin Marauder?

Mike Midkiff



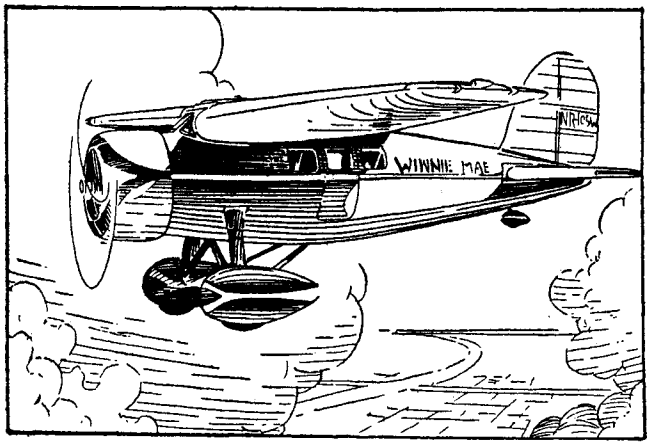
They Had What It Takes

II—WILEY POST—ACE OF WORLD GIRDLERS

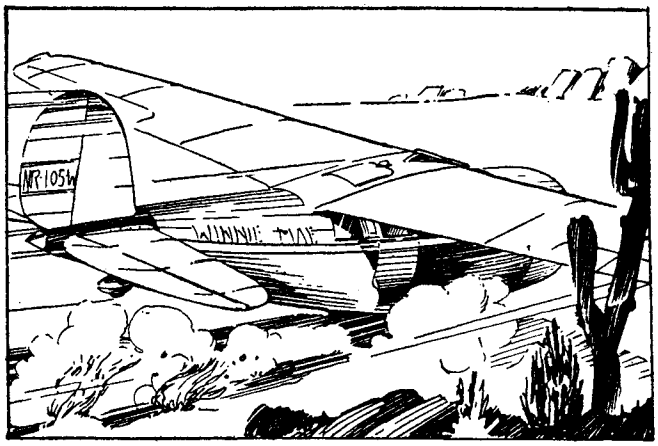


1—Post, as a youth, was a worker in the oil fields of the West, and it was at this time that he got his first taste of the air. A barnstorming pilot hired him as a parachute jumper, and he engaged in this hazardous, cloud-busting trade for two years. He did not, however, wholly give up his oil work.

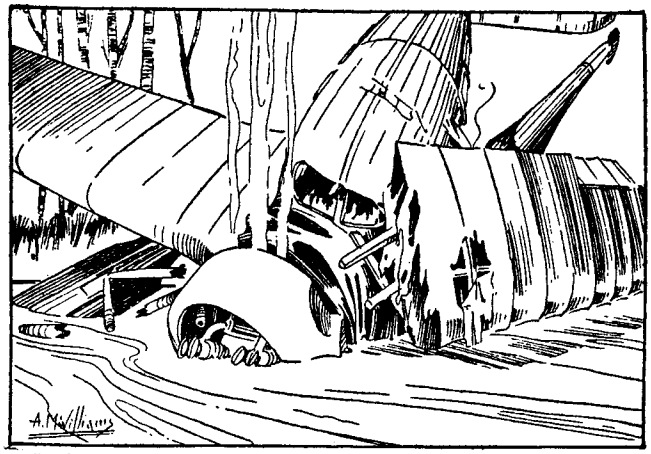
2—Then came a terrible blow! A chip of steel from a drill rendered his left eye sightless, and his ambitions to become a flyer seemed doomed. But his determination overcame even this great handicap. He bravely went ahead, buying his first plane, an ancient Jenny, with his injury compensation money.



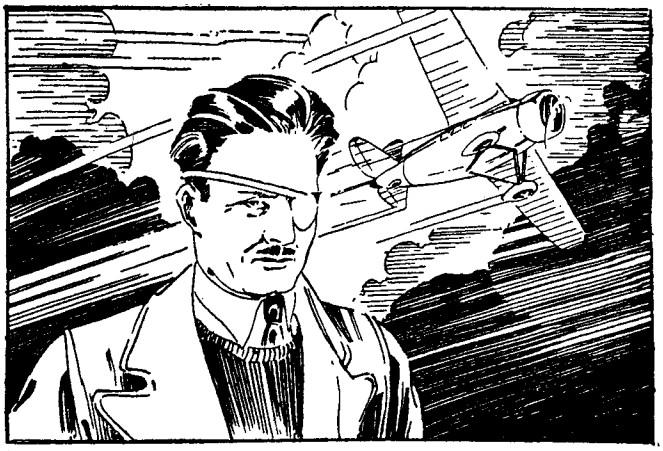
3—Soon Post became pilot for a wealthy oil man, the plane being the Lockheed *Winnie Mae*. Backed financially by his employer, he won a transcontinental dash; then, with Harold Gatty as co-pilot, he circled the globe in eight days! And two years later (1933) he surpassed even this feat by girdling the earth in seven days—solo!



4—Intrigued by the possibilities of high altitude flight, Post bought the *Winnie Mae* and futilely tried four times to span the U. S. via the sub-stratosphere. On each take-off he dropped his undercarriage, then landed later on the ship's "belly." His successful "set-down" in the desert, on one attempt, was well-nigh miraculous.



5—Shortly afterward came Post's last flight. On August 16, 1935, with the famed comedian, Will Rogers, as his passenger, Post's ship went out of control when the motor quit in a take-off near Point Barrow, Alaska. Falling from a height of only fifty feet, the plane hit with terrific force in the shallow river bed. Both men were killed instantly.



6—Wiley Post rose to fame by surmounting odds that would have stopped most other men. Ace of the world girdlers and a foremost exponent of stratosphere flying, his name is inscribed indelibly in the annals of the air. In cutting short many further great contributions to aviation, his tragic death was a grievous blow to the aero world.

THE GOLDEN AGE

by

Fran Ptaszkiewicz, D.S.M.

It was 1936, the depression was devouring businesse's left and right, particullarly small fledgling aircraft company's, which were striving to make a go of it during this doom and gloom financial period of the United States.

Yet another new airplane company was about to try it's wings in this oh, so, marginal aircraft market. The Aero Engineering Corp., then located in their temporary facility at the Metropolitan Airport in Van Nuys, California, had designed and produced a sleek looking airplane which they called the "Aeroneer".

This well streamlined all metal machine was a low wing 2 place design featuring side by side seating and dual controls in an enclosed cabin. The landing gear was a fixed, single strut cantilever type housing 6.50 x 10.00 tires in wheel pants which complimented the rest of the airplane. The tail wheel was of the full swiveling type and could be locked for takeoff and landing. An electric starter and hydraulic brakes were among the added features of this new design.
The "Aeroneer" was powered by a Menasco C-4 engine which was rated at 125 hp at 2,175 rpm and gave a high speed of 141 mph, a cruising speed of 131 mph at 8,000 ft and a cruising range of 725 miles. Landing speed was 49 mph.

Dimensions included a Wingspan of 32 ft 6 in; Length 24 ft; Height 7 ft 8 in and a total wing area including ailerons of 168 sq. ft..

Construction was 24st Alclad, this included wing ribs, wing skins, stiffeners, semi-monocoque fuselage covering, fin and stabilizer. The wing spar was of one piece, machined from 24st dural. All control surfaces were fabric covered.

The airplane was first displayed to the public at the 1937 Los Angeles Air Show. It's price was $4,950 at the factory. A slightly more powered version using a Menasco B-6 engine was tentatively priced at a fly-away price of $5,675. Sadly no orders were forthcoming and the one and only example, registration no. NC 16075 languished and eventually passed into oblivion.

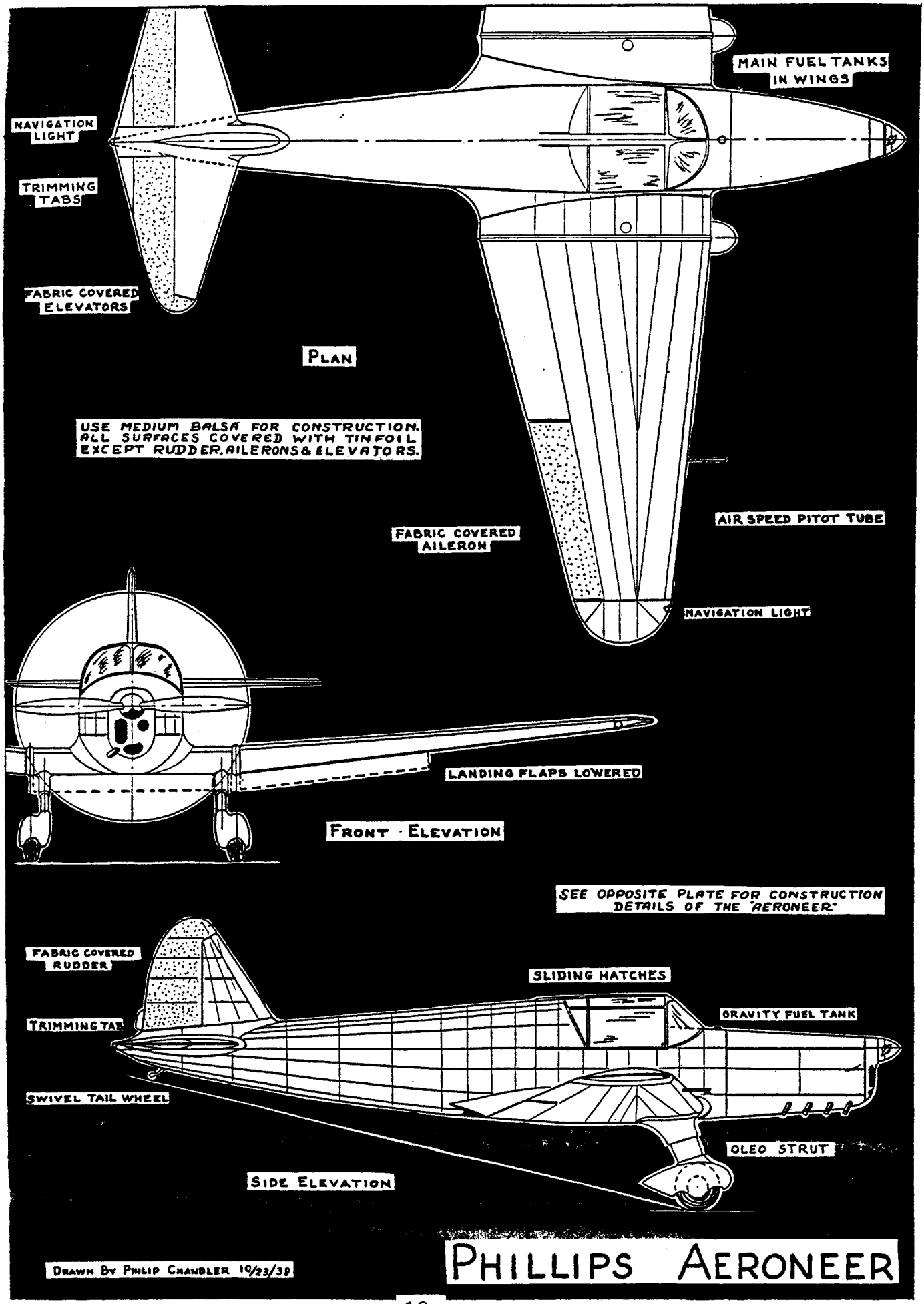
There was a report in the aviation press that the Phillip's Aviation Company had acquired the design rights from the Aero Engineering Corp. and were planning to produce the airplane. However, the Phillip's Co's financial condition was no better than Aero's and for a second time the design never reached production.

Sadly, a beautiful design lost to the flying world, another one of a kind relegated to historical status.

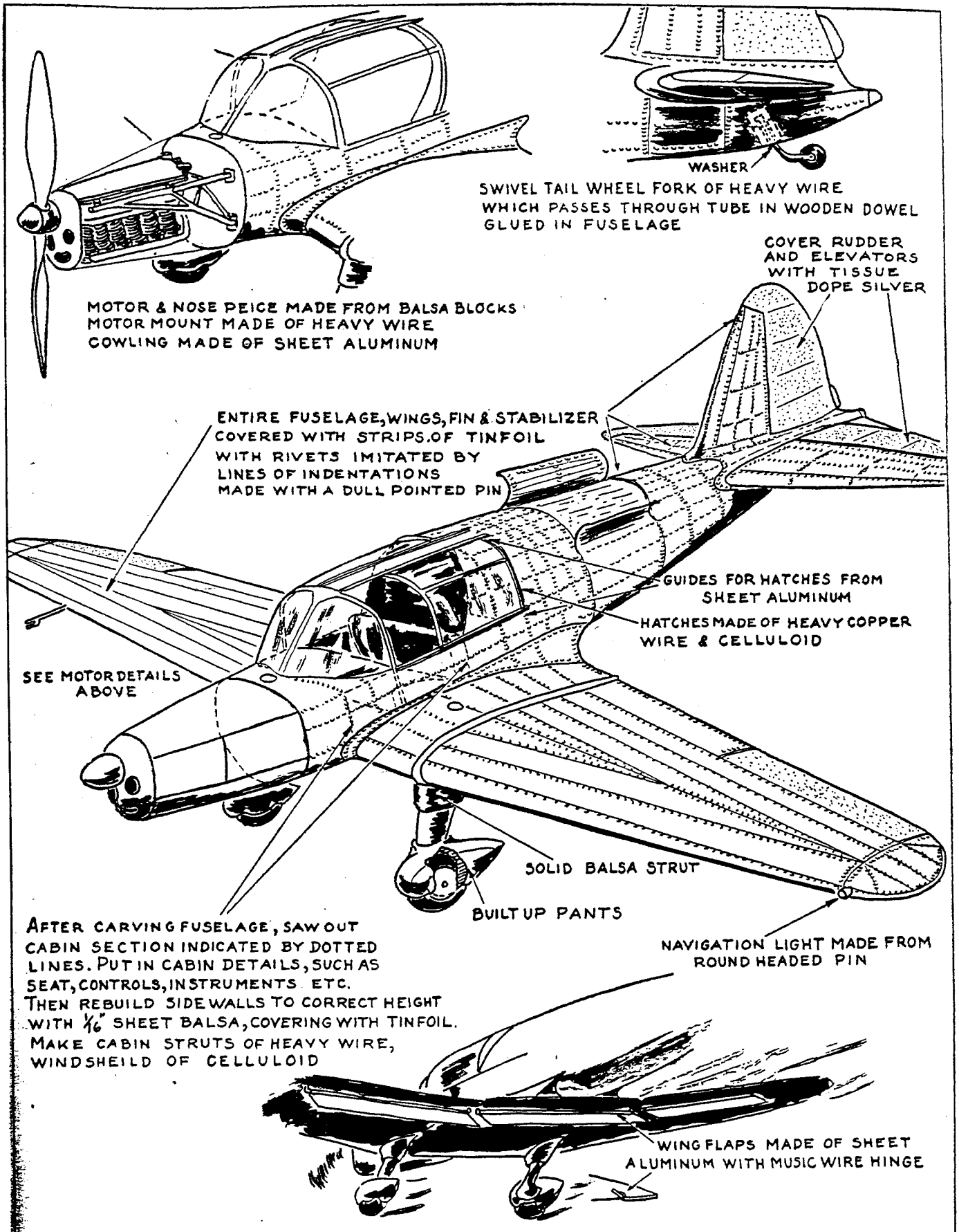
The beautiful lines of the airplane were not lost to the modeling world, for what the original full scale machine could not accomplish in the way of sales and interest, the miniature creations did. The Guillow and Comet company's produced rubber powered versions ranging in wing-span from 10 in. to 40 in. depending on size desired and financial constraints of a young modeler's depression budget. Solid models were not forgotten as Comet produced a kit and Flying Aces and Model Airplane News both had solid model construction articles.

My catalogs show plan copy's available in various sizes for the Guillow and Comet designs.

MAKE A DISPLAY MODEL OF THIS AERONEER



INCLUDE THESE DETAILS FOR AN A-1 JOB



CONSTRUCTION DETAILS

PHILLIPS AERONEER

DRAWN BY PHILIP CHANDLER 10/27/38

Reminiscences of a Flying Aces Fall Meet, 1975, by Bob Clemens

I wrote the following after attending a Flying Aces Club contest in the fall of 1975, held at a meadow near Durham, Connecticut, known to FAC members as "Pinkham Field." It was published in the December 1975, edition of the National Free Flight Society Digest. At that time I was the Digest's contributing editor for scale. The FAC has grown considerably since that day 26 years ago when its membership numbered around 100, but I believe the same spirit pervades the club today as it did on that long-ago autumn afternoon.

* * * * * * * * *

Only a dim afterglow remains beyond the low Connecticut hills to the west as I slide my two model boxes into the back seat of my car. The 1975 Flying Aces Club fall meet is over, but its impressions linger on. As I drive off through the deepening twilight my mind replays the day's recollections...

The morning dawns clear and crisp; the ground fog and heavy dew are just burning off the meadow at Durham as the now-familiar yellow judging tent, fashioned from a large parachute, goes up. Contestants trickle in at a steady rate, their model boxes and paraphernalia dotting the grassy area around the tent.

A few tentative test flights by peanuts and profile models test the air; it is ideal and will remain so for the next two hours: calm and buoyant. My quarter-ounce Bede-4, inactive since the first *Model Builder* magazine postal contest, comes out of the box and on to the winding stooge. Two quick test flights confirm its trim, with the little ship turning 1:10 on the second flight. Mike Midkiff from Erie, Pennsylvania, has joined me and will be my flying companion throughout the day.

I change to a fresh motor for the Bede, but the rubber must be lousy as the model fails to climb and hits only 34 seconds. Not good in an event where the flight score is the total of three officials. Back to the test motor... 1,300 turns on the long loop of .065 rubber. The model rides the good air for a beautiful 1:43. Circling with it is a Folkerts "Toots," warming up for the Greve and Thompson races.

Walking back to my table, I look up and see a Mattel "Super Star" thermaling smoothly about 300 feet overhead, then start to slowly descend. What air!

Charlie Learoyd has arrived, and is flying his Lacy M-10 in Peanut Scale. His first flight with the nine-gram ships hits 1:21. The second maxes out at 123 seconds, followed by a spectacular thermal flight of 5:31 that peaks out at about 350 feet overhead and lands only a few hundred feet from the launch point.

Charlie has just retrieved his ship when Mike Midkiff flies his clipped-wing Cub into the same air. It orbits in the light lift for six minutes. Again, the model lands only a short walk from where it was launched. Does it get any better than this?

Trying for 2,000 turns on the BD-4, I blow the motor, luckily without damage. Noting that the break was at the knot, I retie and use it for my final official: 1:40. Damn that first flight! But my total score will be good enough for second place behind Charlie Learoyd.

My 18" Farman Mosquito makes 1:19 on its first flight in FAC Scale, and I turn it in for scale judging. Mike Midkiff winds up his jumbo Bristol M1-C, his second entry in FAC Scale. It rises slowly and realistically for a short but impressive 34-second flight.

The wind has shifted and picked up, now coming from the south. The blue sky has given way to a light overcast, and the good air has started to fade. My "Eyeball" embryo endurance ship, flying in its first meet, lifts off the card table and climbs into what's left of the lift. I'm able to jog under it as it drifts off the field, finally landing in an open area beyond a tree line. This would be the only max anyone gets in Embryo that day. Lucky!

Some guy shows up a little later to post 73, 117, and 109 and win first place in Embryo for the third year in a row. What was that name again? Oh yes- Henry Struck.

My second flight is a fair 87 seconds, but the third dies out at a disappointing 63, still good enough for second place.

By now most of the contestants have moved to the south end of the meadow for the raceplane events: Aerol, Greve, and Thompson trophies. These events feature simultaneous launches of rubber-powered Gee Bees, Keith Riders, Travelairs, Folkerts, and other gems from the golden age of air racing. They must be seen to be fully appreciated. Last ship down wins the heat.

As I look back at the main flying area, a Comet Waco Coast Guard biplane is thermaling slowly off to the north. Talking later to its builder, Ed Taylor, I was told those familiar words, "It was just a test hop." Ed had to retrieve the all-blue ship from a tall tree.

The contest ends at 5 PM. Final handicaps and scores are tallied, and awards are handed out as a Bellanca Airbus circles over the headquarters tent. My Farman gives me my third second place of the day, scoring maximum scale points under the FAC rules, finishing behind Chet Bukowski's Allied Sport low winger.

His CD chores finished for another season, Dave Stott breaks out some of his own ships for some fun flying. By now the air is very calm. The sun is setting. Up goes Dave's Beardmore "Inflexible," a Jumbo Scale bomber prototype from the 1920's. It rises like a Wakefield, smooth and strong. Several embryo models are up again, floating on the cool, dead air. A peanut "Mister Mulligan" goes up, quickly followed by Bob Thompson's profile Boeing biplane. Dave Stott trots out a real eye-catcher, a two-foot B-25 "Mitchell." Off it goes, its two rubber motors each driving a three-bladed prop. Beautiful!

Ed Novak winds up a Boeing P-26... Up it goes for a short but very stable flight. These guys are having a ball, flying in the final minutes of daylight. Dave Stott winds up again, this time it's his sleek "Mr. Smoothie" racer. And it is smooth- and fast, built with its landing gear retracted.

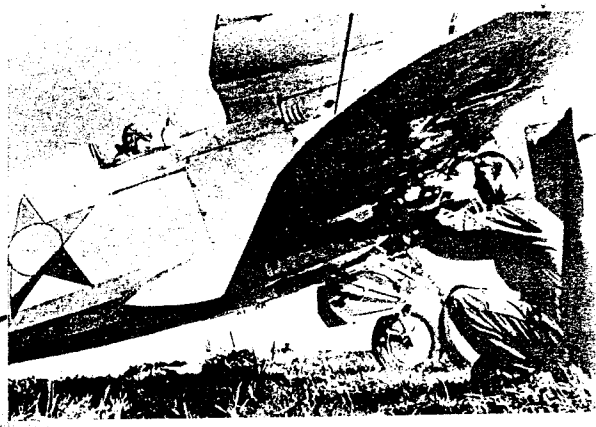
The fun is contagious. I get out my Farman Mosquito again, and quickly put it up for two flights.

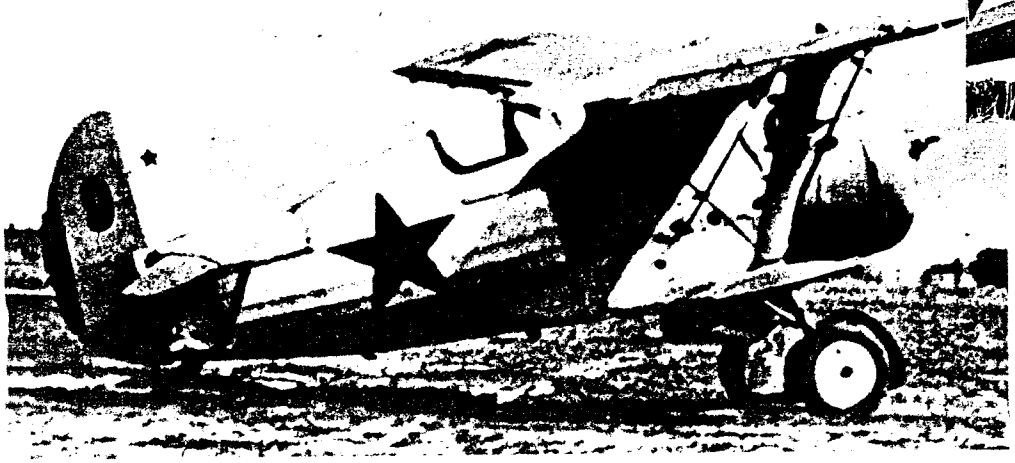
Suddenly, it's all over. The tent is down and gone. Car doors slam in the gathering darkness. Scattered voices sound good-byes along the meadow's edge.

As I put my key in the ignition I think to myself, "This, my friends, is what this stick-and-tissue business is all about."

Amen.

'CHAIKA'





Fastest fighting biplane to see service was Russian—and still in service in 1944!

SHOULD you have the fortune to visit the Musée de l'Air, near Paris, you will discover among a plethora of fascinating exhibits spanning the history of French aviation one intriguing item which seems oddly out of place alongside the Breguets, Bleriots, Dewoitines and Moranes: a Polikarpov I-153 single-seat fighter biplane in superlative condition and sporting its original Russian markings!

How did this little warplane find its way into a French museum? That is a mystery which may never be solved, for, after the termination of fighting in Europe, the I-153, complete with red star insignia, was discovered in a French hangar.

The I-153 is certainly worthy of inclusion among the exhibits of any air museum, for not only was it the last fighter biplane to be used in any numbers by one of the major air powers, it was also the fastest fighter biplane ever to see operational service. The I-153 made its début during the Spanish Civil War, during which it was dubbed *Chaika* (Gull), a name which clung to the Polikarpov fighter throughout its operational career. The I-153 was the final development in a line of single-seat fighter biplanes initiated by Nikolai N. Polikarpov in 1927 with the I-3, which enjoyed only limited success. Three years later, co-operating with D.-P. Grigorovich, he produced the I-5, which, powered by a 480 h.p. M-22 radial air-cooled engine and carrying four 7.62-mm. machine guns, proved to possess exceptional powers of manoeuvre, and was probably the first Russian production fighter of indigenous design to compare favourably with the fighters produced by the major aircraft manufacturing countries.

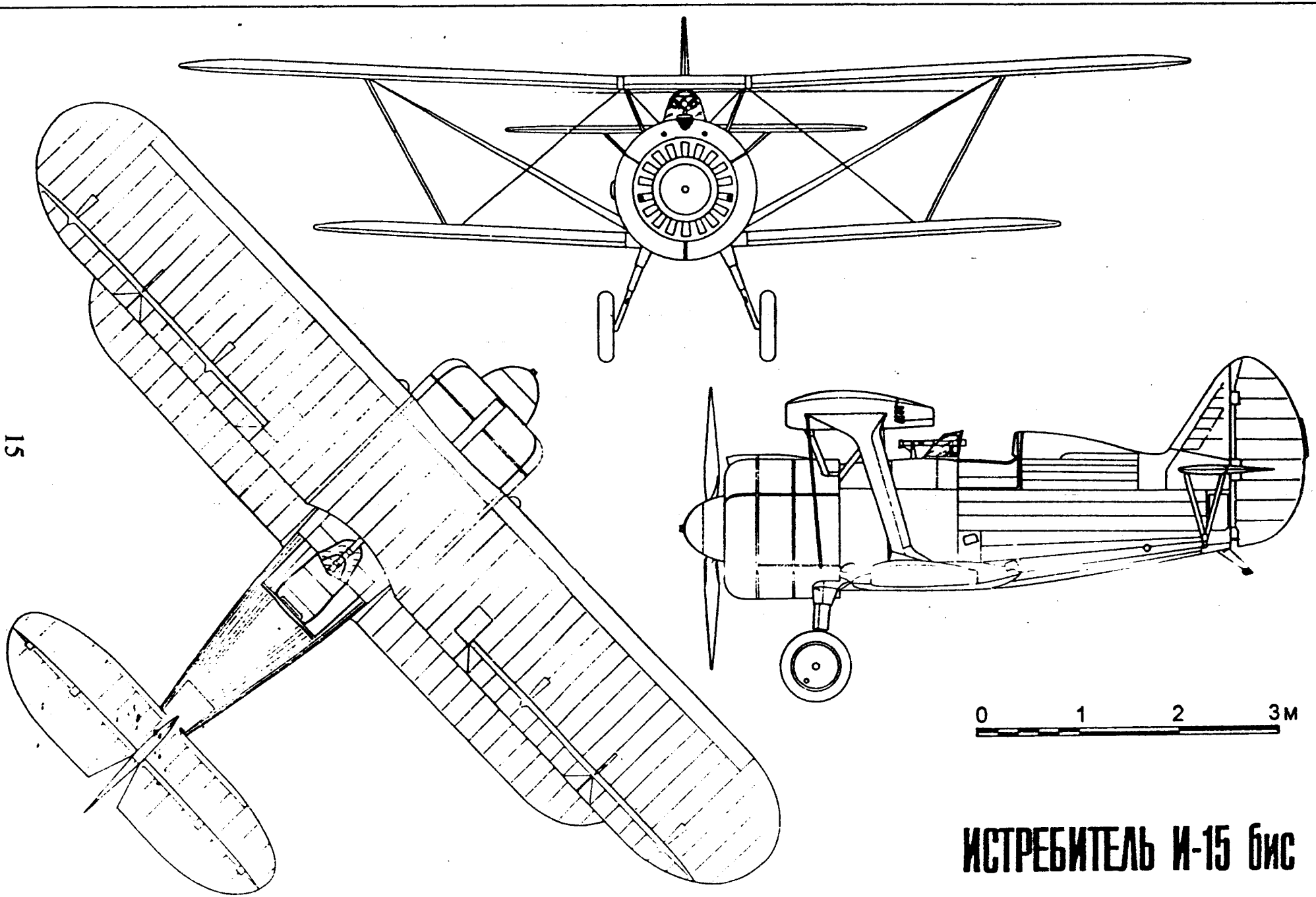
Polikarpov continued development of the fighter series after the creation of the Tsentralnii Aerogjdrodinamicheskii Institut (Central Aero and Hydrodynamic Institute), and his next machine, which was initially known as the TsKB-3, was essentially a refined development of the I-5 and characterised by an upper wing of gull form which faired into the fuselage forward of the cockpit. Powered by a 700 h.p. M-25 radial and later redesignated I-15, the TsKB-3 flew in prototype form for the first time in October, 1933. A sesquiplane with single streamlined bracing struts, cantilever undercarriage legs, mixed construction with fabric covering, and an armament of four 7.62-mm. machine guns, the TsKB-3, alias I-15, was built in larger numbers than any previous Russian fighter and, on November 21, 1935, flown by the well-known Russian test pilot V. Kokkinaki, this type established a new world altitude record of 47,818 ft.

"Flat Nose"

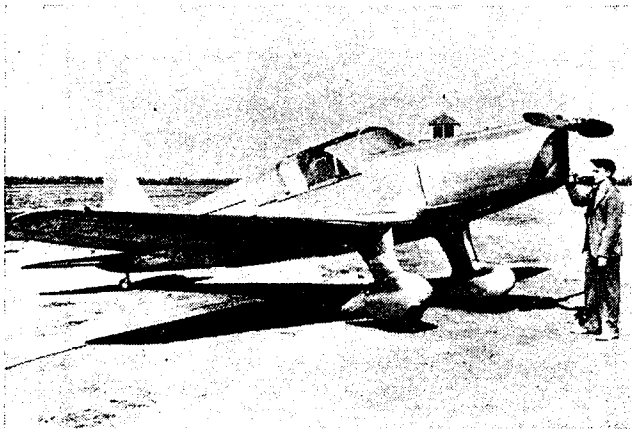
Substantial numbers of I-15 fighters were shipped to Spain, where the type was popularly known as the *Chato* ("Flat-nosed One"), together with quantities of an improved model, the I-15bis or TsKB-3bis, which had been tested for the first time in 1934. Unlike the I-15, the I-15bis had the centre section of the upper wing braced above the fuselage, and a 750 h.p. M-25B radial which drove an AV-1 two-blade metal airscrew was enclosed by a long-chord cowling. Structurally, the later type differed little from the original I-15, and armament remained the same, although shackles were provided under the wings for two 110-lb. or four 55-lb. bombs. The I-15bis proved superior to the He 51 fighters of the Condor Legion, and the type was supplied to the Chinese government in 1937-38 for use against the Japanese, who also encountered the type during the fighting between Russo-Mongolian and Japanese forces on the Manchukuoan border.

Many I-15bis fighters were in service with the VVS-RKKA when the Soviet Union attacked Finland in 1939, but the principal type encountered by the Finns was a further development of the basic design, the I-153, which had been evolved in parallel with the I-15bis by A. J. Scherbakov. The I-153 retained the original gull-form upper wing, and when originally flown in 1935 had a 750 h.p. M-25B engine driving an AV-1 airscrew. Its principal distinguishing feature was a retractable undercarriage, the main members of which were retracted by a somewhat complex system of telescoping legs into wells aft of the engine. Soon after the I-153 entered production, the M-25B gave place to an M-62R engine rated at 850 h.p. at 3,940 ft. and 800 h.p. at 13,780 ft., a maximum speed of 249 m.p.h. being attained with this power plant. Structurally, the I-153 remained similar to its predecessors, having wooden wings with fabric covering, and a wood and steel-tube fuselage with metal panelling forward and fabric covering aft. Armament comprised four 7.62-mm. ShKAS machine guns installed in the forward fuselage and synchronised to fire through the airscrew disc, these each having 650 r.p.g., and six RS-82 rocket missiles, two 22 Imp. gal. auxiliary fuel tanks, two 165-lb. bombs or four 55-lb. bombs could be carried under the wings. A 68 Imp. gal. fuel tank was mounted immediately aft of the engine firewall, and the pilot was protected by 9-mm. seat armour.

The definitive production model of the I-153 was powered by a 1,000 h.p. M-63 engine driving a VV-1 airscrew, and weighing 3,168 lb. empty and 4,100 lb. loaded (without external stores), the fighter attained a maximum speed of 267 m.p.h. at 16,400 ft. Range on internal fuel was 298 miles at 186 m.p.h. or, with 22 Imp. gal. auxiliary tanks, 560 miles at 174 m.p.h. Overall dimensions were span, 32 ft. 9¾ in.; length, 20 ft. 3¾ in.; height, 9 ft. 3 in.; wing area, 238 sq. ft. The I-153 was extensively used during the opening stages of the German offensive on the Eastern Front, and was so nimble that, when flown by an experienced pilot, could hold its own against the faster fighter monoplanes of the Luftwaffe. It was still being encountered by Finnish forces as late as 1944, and a number of captured aircraft of this type were operated by the Finnish 30th Reconnaissance Squadron alongside Fokker D.XXIs, but the M-63 engines proved extremely unreliable, and several pilots were lost as a result of engine failure.—W. G.



ИСТРЕБИТЕЛЬ И-15 бис



AERONEER 1-B 2-place sport plane is all-metal except for fabric control surfaces. With 125 h.p. Menasco C4, speed is 150, range 700 miles.

FAC Postal Contests

Here are the final results of the Summer Postal Contest. The number of entries was a little disappointing but "Hats Off" to all who participated!

Golden Age Civil

Pilot	Aircraft	Time
1. Doc Martin	Waco "E"	298 sec.
2. Tom Hallman	Gadfly	148 "
3. Ron Hummel	Howard DGA-9	98 "
4. Sidney Gilbert	Comper Swift	84 "
5. Steve McKeown	Curtiss Robin	58 "
6. Steve McKeown	Gadfly	45 "

Peanut Scale

Pilot	Aircraft	Time
1. Sidney Gilbert	Cougar	119 sec.
2. Tom Hallman	Clip-wing Cub	83 "
3. Frank Hirleman	Farman F-190	47 "
4. Ron Hummel	Clip-wing Mono.	44 "
5. Sidney Gilbert	Fike	41 "
6. Lin Reichel	Cougar	41 "

Gilbert's Fike is a Pistachio size! Kanones go to Doc Martin and Sidney Gilbert.

The Winter Postal Contest starts now as you read this. The events / wings will consist of; Indoor Peanut Scale, Outdoor Peanut Scale,Indoor Scale and Outdoor Scale. Peanuts must fly in their own event. Fly as often as you want with as many models as you wish and each time you better a previous time with a particular model send it in. Contest times count also. The contest will end on May 26, 2002. Entries postmarked after May 28, 2002 will not be accepted. Send all entries to: FAC-GHQ, 3301 Cindy Lane, Erie, Pa. 16506.

PHOTO PAGE

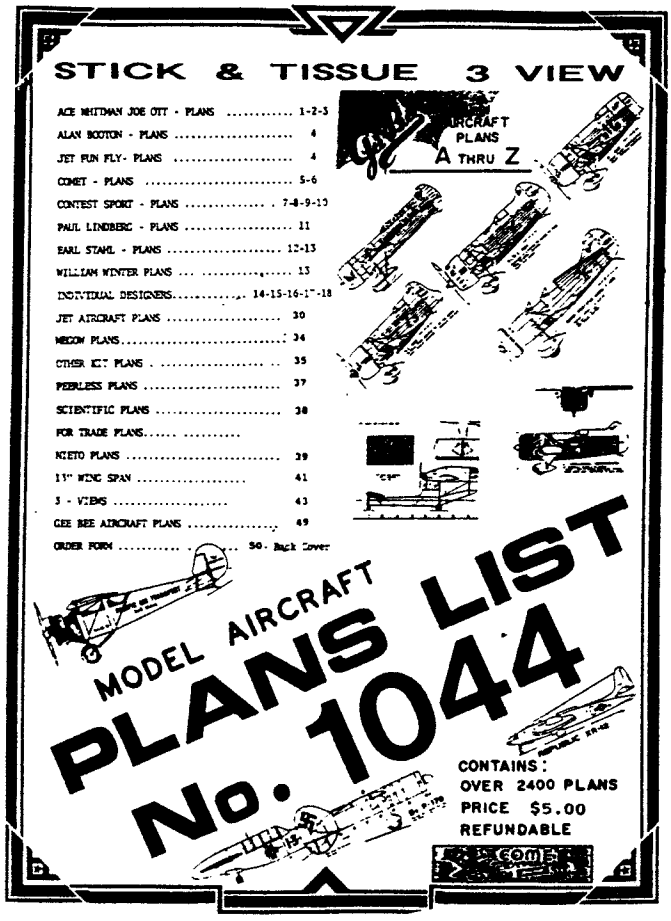
Left column; Jumbo Monocoupe with its builder Charlie Schobloher. Neat model!

Here is Stew Meyers and what appears to be a Sopwith Camel. Probably from a Guillow's kit. Good Flyer!

Right column; Bob McLellon preparing for flight in the World War One event. The model is the Fokker D-7. Bob's wife assists.

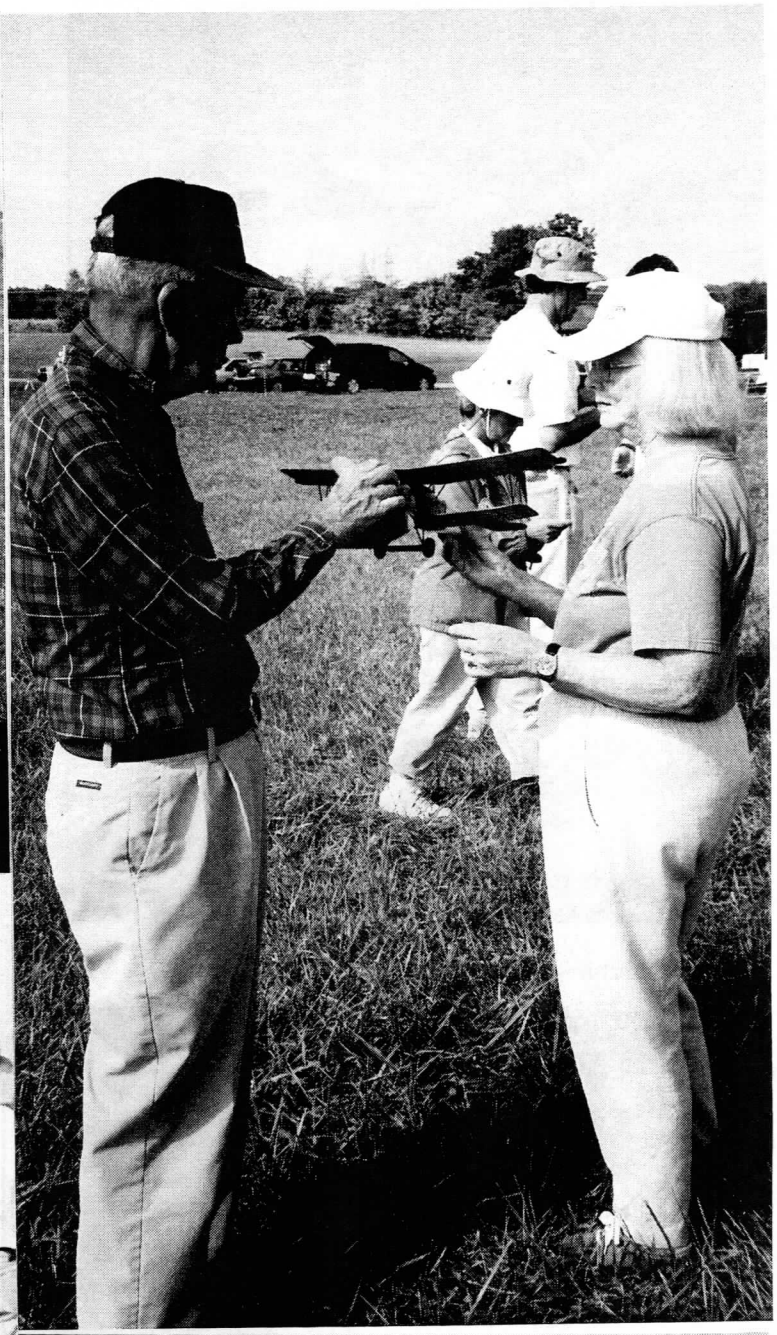
Two of our distinguished scale judges hard at work judging a nice Miles Magister. Fred Wunsche on the left and Charlie Schobloher on the right.

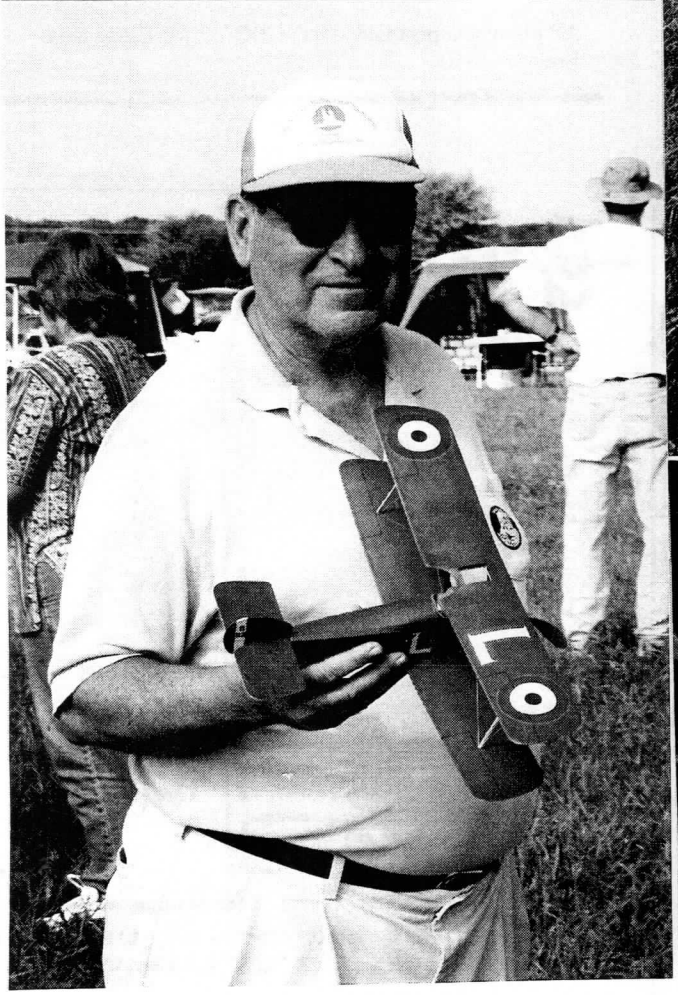
All photos by Fred Wunsche except for the pic of the judges, that one by Lloyd Shales.



Allen Hunt, 140 Asbury Road, Nitro, WV 25143 Plan list $5.00 Refundable. Check out our new Web Site at; www.modelairplanes.net


NC2064





Kit #313 Price $44.95
Kit features over 90 LASER CUT PARTS

Kit #314 Price $40.95
Kit features over 110 LASER CUT PARTS

Kit #315 Price $44.95
Kit features over 100 LASER CUT PARTS

dumas aircraft

DUMAS PRODUCTS, INC.
909 E. 17th St Tucson, AZ 85719
Phone: 520-623-3742
Fax: 520-620-1329

E-MAIL: dumasinc@dumasproducts.com

Check out our website at
www.dumasproducts.com for color photos of our entire line of airplane kits and our latest series V 30" wingspan kits.

FAC T-SHIRT

We have this year's T-Shirts in all sizes at the present time. They are an ash gray color and have a Monocoupe on the front done in red. Drawing once again done by Bob Bojanowski our ace artist.

Sizes are, small, medium, large, x-large, [redacted]. Cost is $12.50 Postpaid. Send your orders to FAC-GHQ, 3301 Cindy Lane, Erie, Pa. 16506.

FAC PLANS

AIRCRAFT	SPAN	DESIGNER	PRICE
Erie Times Modelplane	24"	Engstrom	$3.00
Westland Lysander	25"	Studiette Models	4.00
Northrop Gamma	36"	Pres Bruning	5.00
Fairchild PT-19	24"	John Low	4.00
Curtiss Gulfhawk	24"	Doug Wilkey	4.00
Boeing P-26	18"	Doug Wilkey	3.00
Waco C-7	22"	Paul Boyanowski	5.00
Laird Solution	14"	Tom Nallen, Sr.	4.00
Waco "D"	24"	Pres Bruning	4.00
Lockheed Orion	24"	Tom Nallen, Sr.	6.00

All plans sent postpaid. FAC-GHQ, 3301 Cindy Lane Erie, Pa. 16506

CACTUS SQUADRON WINTER QUEST 2002

CONTEST DIRECTOR – BOB SCHLOSBERG (480-941-8778)

SATURDAY FEBRUARY 2, 2002 *

AT THE WOLFSWINKEL FIELD 08:30 – 13:00
SCOTTSDALE, AZ.

FAC COMPETITION RULES APPLY

THREE NON-JUDGED TIMED EVENTS:
EMBRYO ENDURANCE
FAC OLDTIMER RUBBER
GOLDEN AGE CIVILIAN SCALE
(REMINDER – GOLDEN AGE SCALE 45 MIN. SCALE POINT CRITERIA APPLIES)

TROPHIES WILL BE AWARDED FOR 1ST & 2ND PLACES
NO AMA LICENSE REQUIRED!
ENTRY FEES:
$5.00 PER EVENT
MAX ENTRY FEE - $ 10.00

ALTERNATE CONTACTS:

JOE MCGUIRE	480-924-4313
LARRY SEALS	480-855-0197
DAVE SMITH	480-892-0935

*(IF POSTPONED DUE TO INCLEMENT WEATHER , THE CONTEST WILL BE CONDUCTED ON SUNDAY FEB. 17)

WANTED:

3-Views, photos, and documentation for the Westland Welkin and the Hillson FH.40, also known as the Slip-Wing or Bi-Mono Hurricane, a biplane version of the Hawker Hurricane built in 1940. Scot Dobberfuhl, 1718 23rd Ave, Forest Grove, OR 97116. flyfac@hotmail.com

Air Mail

Hello Skyboss, 11/12/01

Nice issue. Enjoyed Don Campbell's "We wanted Wings". He mentioned Bill Moore and Robert Burtt as authors of the Jimmie Allen radio program scripts. Robert Burtt is not new to Flying Aces readers. He was the son of a catholic missionary in China and authored the Battlin' Grogan yarns in the early issues. Grogan was in China fighting the Nips long before Chennault got there. Grogan and his Dragon Sqdn flew P-12s and Curtiss Export Hawks. My first Peanut was a Megow P-12 done in Grogan's colors and markings. "Saffron" with red dragon insignia. That P-12 did aerial duels with Thompson's first Peanut, a Dallaire Kawasaki 92. Simultaneous launches.

Stottsky

OZARK MODEL AVIATION

FORMERLY GULF COAST MODEL AVIATION

A BUSINESS DEDICATED TO THE ADVANCEMENT AND PROMOTION OF FREE FLIGHT SCALE MODELING BY OFFERING FLIGHT TESTED SCALE **MODEL BLUEPRINTS**. THESE PRINTS PRIMIARLY COVER SUBJECTS RARELY SEEN BUT NONETHELESS ARE GOOD FLYING MODELS. MANY UNIQUE WW-I AND WW-II SUBJECTS CAN BE FOUND.

PRINTS ARE ALL BLACKLINE APP.24" X 36" SIZE

IN ADDITION MOST SUBJECTS CAN HAVE **3-VIEW** AND SOME **DOCUMENTATION** PROVIDED.

PRICING:

PRINTS, PER PRINT---------- $7.00/EA.
PRINTS, PER PRINT AND DOCKS.---------- $8.00/EA.

THE ABOVE INCLUDE SHIPPING AND HANDLING.

SEND TO:

M.MIDKIFF
OZARK MODEL AVIATION
1117 PEELER BEND RD.
BENTON, AR. 72015

PHONE: 501 860 6073
E- MAIL: mmid149421@aol.com

SCALE JUDGING LESSON

This article by Tom Arnold first appeared in the newsletter of the "Scale Staffel" FAC Squadron #41.

At the FAC NATS I was cheerfully shanghaied into being a power scale judge. When I say "cheerfully" I mean the shanghaiers were cheerful, I sputtered out a few lame exclusives about my incompetence before I was trussed, gagged, and dragged to the judging table. Considering all the flack I've put up about how much I disagree with the power scale rules, I thought it ironic that I've now got to exercise them, but I was determined to do my best. Fortunately, I had two excellent and distinguished co-judges to confer with and I am eternally grateful for their wisdom. Part of the reason I was sweating this so much is because (as I have complained about in the past) the scale scores alone determines the winner in almost all cases. It really puts the heat on the judges and the FAC NATS is not the place to screw up. Most of the contestants bring fine, well trimmed models and they've placed in enough local contests to know pretty well what should be coming out of the judging. Combine that with the fact they've spent hundreds of dollars to just be there at Geneseo and they really deserve the best efforts of the officials.

The judging was held in a large meeting room filled with circular banquet tables each dedicated to a particular class of models. The judges (3 to an event) sat at a row of tables at the far end of the room and with one worksheet per airplane, would pass each entrant to the co-judges as a particular section was judged. A number of "runners" would bring the aircraft from the display tables as needed. The completed aircraft were so marked on a tag and the runners would return them to the table. While the judges were doing their work, the contestants could wander around the tables, take photos, renew old acquaintances--all the fun stuff. The judging started about 3 p.m. and did not end until 11 p.m. and that was early compared to past years! I knew this and wanted desperately to go schmooz with my buddies when I was first grabbed. By the end of the night I may have missed some photos and socializing but boy did the scales fall from my eyes regarding what it takes to win. Let me explain why.

In the FAC scale judging there are 3 areas (hence the 3 judges) to cover: construction and details, coloring and markings, and finally workmanship. Each of us had one area and used a worksheet that traveled with the aircraft to do our calculations. We had to, without exception, follow exactly what the FAC rule book delineated in those areas. Each judge had to be completely blind to any area other than his own and that was tough because many things would overlap. To give an example: a WWI biplane would have a Lewis gun mounted to the top wing. Construction and detail would grade it high for being there, camouflage and markings would grade it medium for the colors used and workmanship would grade it low because it was a piece of junk. It was hard to stay in your own backyard as we all wanted to grade it low because of the workmanship. Along would come another and it would get low points in construction and details for no gun, low for markings, and top for workmanship points because it was so cleanly done. The final score then combined with the new Whiffle Factor that power scale used this year gave a final scale score that, to be quite frank, even surprised the judges on occasion. Admittedly, it usually was a reversal between two close and very good aircraft--there was no gross movement of final scores, but because of the power scale **flights** being of such little impact, it became very important to who won and who didn't. On

occasion, we would say "did we do that right?" and bring back and redo a model to make sure we were being consistent among the different models. After the first 4 hours of judging you get very sensitive to a drift factor of the scores due to fatigue and repetition. The concentrated focus on consistency really was draining but to be spelled by a new team of judges would have destroyed it all. Another gremlin that dogged us was the Love Factor. Put a WWII fighter in front of me and I wanted to bless it with angel dust just because I loved it. Give me a Cessna 172 with its cutesy marketing-department-designed swept tail and watch me just about use the wing for a writing pad and guess the scores. Here's where 3 heads are better than one as a couple of good slaps across the face by one colleague and the other yelling "Get a grip!!" usually kept this to a minimum. As a result I will never, ever, ever criticize a conciencious judge no matter how pretty or ugly my model may be. I have walked in his moccasins and felt his bunions, so to speak.

So what did I learn from all this for my own personal aircraft? A lot and I thought I **knew** how to present a model to the judges. My error was that I had based it on my past experiences as a judge at local contests where (1) the pressure is not as great, (2) the disparity between models is very obvious, (3) there's not a lot of entrants to judge. Documentation will do so much for you, yet we all leave it as a final pain in the tail to rush to Kinko's the night before the contest. You really need to do the documentation before you even cut one piece of balsa. A colored file folder is adequate to hold your documentation (would you believe a very good builder gave us a cardboard cutout of a drawing of the model taken from the kit box for his total documentation? It was great comedy relief) but the arrangement of the insides is crucial. Since the FAC rule book lays out 3 areas of judging, layout your documentation to precisely address each one of those areas in as great of detail as possible **to help you**, not to snow the judges. Believe me, they are unsnowable--you know, they do build airplanes too. Here's an example. Present an easy to view 3 view that can be an 8 1/2 x 11 sheet or even a fold out, but make it of the aircraft you are modeling. You'd be surprised at the 3 views we saw of modifications of aircraft, but not the correct one. If you have an in-line engine version of an aircraft, don't give a 3 view of the radial version unless you have a scrap view also included of the correct engine. In the case of an exotic aircraft then show a photo of what you based your model on. Here's a point too. Don't get an incredibly detailed 3 view that shows all the stuff you did not put on your aircraft. Talk about shooting yourself in the foot! The judges will use it against you and have no guilt whatsoever as you essentially said "Here's the 3 view I want you to judge my aircraft against." The opposite hold true too. Don't give very sparse documentation, either 3 view or photos and then pile on the details expecting to wow the judges. They are a shrewd, suspicious bunch who want justification for everything but your mother's virginity. Really, a modeler who does that just reeks of somebody trying to blow something by the judges. So they give him few points for his efforts no matter how noble.

The first area, Construction and Details, is the heaviest weighted area. Did you get that--details get rewarded so you are best off to load on the turnbuckles, pitot tubes, foot steps, antennae, guns, instrument panels, and the kitchen sink. If it's there, just there and not even good, the judges have to give you points. Here's where a detailed 3 view or photos can be your friends. In this area point out **every detail** either in text (like a list) or arrows to parts of photo and don't be afraid to hit the obvious. Make it easy for the judges, give them justification for lots of points, they want you to win and want you to lead them through your plane. They are tired of wading through bozo documentation and love the man who helps them do their job. There's 30 points

they want to give you, but it's not going to happen without your help.

The next section, in fact make it a separate page and title it Coloring & Markings at the top, in big bold letters so the judge knows what he's supposed to do, is worth 20 points. Here's where you've got to have photos of the markings you've put on. With no photos or half-way scholarly-looking drawings, kiss it off--all 20 points. If you've got a model of a "project aircraft" along the lines of the late WWII German designs and the actual full scale version never flew, that's not a problem. Show a photo (or a published colored drawing) of a contemporary aircraft that did sport that paint scheme and point out the markings on it. Here's the catch: make your aircraft the same as depicted, not close, but the same. Arrows pointing out the obvious on the photos and drawings along with little notes are fabulous. Thanks to color copiers these days you can take out sections of books and put together very nice paste-ups to illustrate what you've done. Be aware judges don't like to read text so make text the minor part of your presentation and concentrate on the visual. If you must put text in, say to justify a paint scheme, highlight with a transparent felt tip pen the key sentence such that your proof is observed in one glance and the judge can move on.

The last area is Workmanship and here, surprise, is the least points, only 12 1/2. While it may sound a bit presumptuous to devote a page to it, believe it or not the judges will note it and most certainly look to what you comment on. Hey, if you worked hard to get the flying surfaces aligned dead-on, say so. If you sweated bullets to get a smooth wing covering say so, such as..."The wing covering received a lot of attention to eliminate wrinkles." There, you are not bragging, the judges will note it and you did not need to mention that horrible, wrinkled prune of a fuselage belly. The judge will see the belly wrinkles, of course, but more importantly he won't miss that smooth wing and that's where the points are at for you.

There, 3 pages, 3 areas, and a 3 view. Not too much and not too little. The judging staff will love you. By the way, read the rules very carefully and you will see that it's better to have an ugly, butchered up aircraft in workmanship that's loaded with crapily done details and in the correct colorings and markings than to have an exquisitely done, clean, neat jewel with no details and no justification for a color scheme. Agree or not, that's how they are written and may explain why some beautiful models wind up at the back of the pack.

There is one final thought on documentation. So many fellows love to put a bit of history and perhaps a building preamble to their documentation to warm up the judges to the model before them. We are all also pretty good aviation historians and our models are a flying expression of our link with an exciting time in history. We build a certain model because that moment in history in which it played really intrigued us and we want to share this knowledge with our peers who doubtless would **also** be excited. Okay, now that we've gotten that out of our system--forget it. If you must, make it no more than a 3 sentence description as text will kill you. the only exception to that would be a "project aircraft" that never flew and the judges need a place to begin from. Even keep that short and sweet and lord save us from a page and a half of history of a Grumman Hellcat or Rearwin Speedster!

The following is today's Weasel Clause: I don't really know if this will work for you, but I can tell you that after 6 hours of judging I would have kissed the feet of the model builder who did do it.

BIRD
THE SAFE AIRPLANE

The Model Airplane Builder

by Bill Hadley

Before cutting wood a model airplane builder is keen, anxious, but least someone read his true feelings; he is elaborate caual. The reason for this is that he is about to enter a new though familiar world. The process of entrance begins a short time before he starts building, and is completed the instant he pins down his wood. From that moment on, not only his body, but his spirit and personality exist in a seperate world known only to himself and his comrades.

As the years go by, he returns to this invisible world rather than to earth for peace and solace. There also, he finds a profound enchantment, although he can seldom describe it. He can discuss it with others of his kind, and because they too know and feel its power they understand. But his attempts to communicate his feelings to his wife or other earthly confidants invariably end in failure.

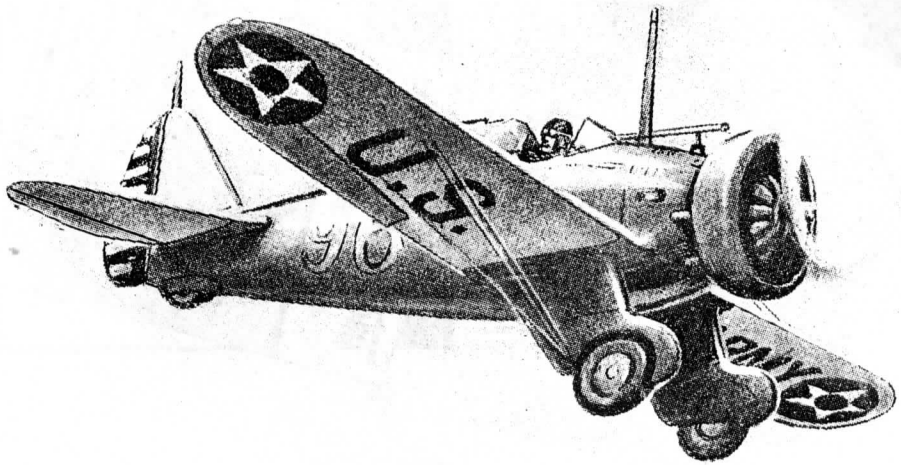
Model airplane building is hypnotic and all modelers are willing victims to its spell. Their world is like a magic island in which the factors of life and death assume their proper values. Thinking becomes clear, because there are no earthly foibles or embellishments to confuse it.

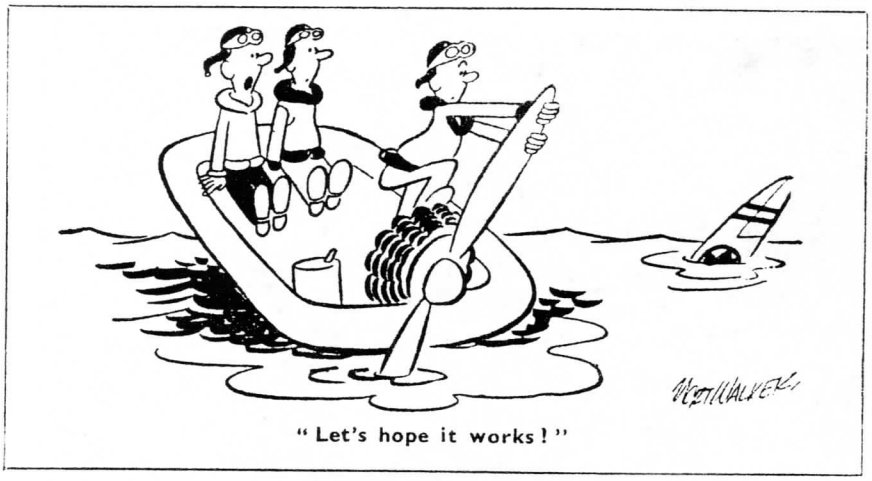
Model builders are, uncomplicated, simple men, hypnotized by the profound beauty of being close to GOD when flying their model airplanes in a cloud-filled blue sky.

Author's confession: Most of this prose is pirated from the "Forward" to Island In The Sky by Ernest K. Gann. I changed the word "pilot" to modeler and "flying" to model building. I still think that this prose describes us to a "T".

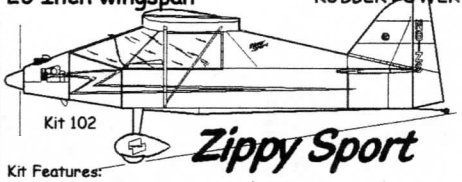
(ED. note..The above was taken from the Cloudbuster's news.)

****





Designed for the experienced model builder
25 Inch wingspan
RUBBER POWER



Zippy Sport

Kit Features:
Balsa strip wood
Contest grade rubber
Nylon thrust buttons
Full size rolled plans
Detailed plan sheet
High grade, Esaki tissue
Laminated outlines
High quality print wood
Each kit hand built and serialized
Hand selected, application driven, balsa sheets and sticks
Plastic prop
A nice custom kit

Price $31.50 / Postage $4.00

THOMAS DESIGNS
505 Wildflower
Burnsville, MN 55306

tdesigns@goldengate.net
Phone 612-435-9527

Catalog $2.00

NEED SCALE DOCUMENTATION?

I have the world's largest aircraft documentation collection.

Antiques, Military, Civilian, Helicopters & Sailplanes

300 NEW Foto-Paaks!

Year 2001 Catalog

Only $8.00 PPD

Canada, Mexico, Alaska, Hawaii, Puerto Rico $10.00*
All other countries $18.00*
(* Includes air postage)

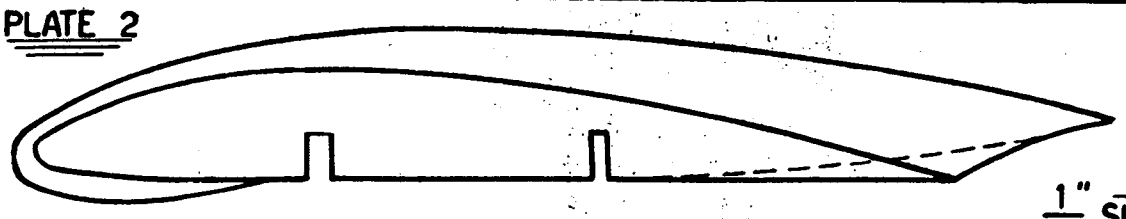
9 articles written by the pros to help you become a better scale modeler.

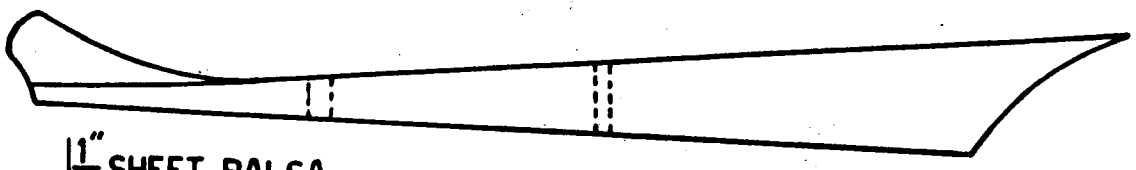
- 8,000 different full color photo studies 1899-2001 (400,000 photos in inventory)
- 35,000 3-view line drawings

Bob Banka's
AIRCRAFT DOCUMENTATION
(Scale Model Research)
3114 Yukon Avenue • Costa Mesa, CA 92626 • (714) 979-8058

http://www.bobsairdoc.com

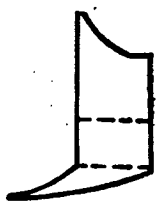
PLATE 2





1/8" SHEET BALSA

WING FILLET
MAKE 2-LEFT &
RIGHT



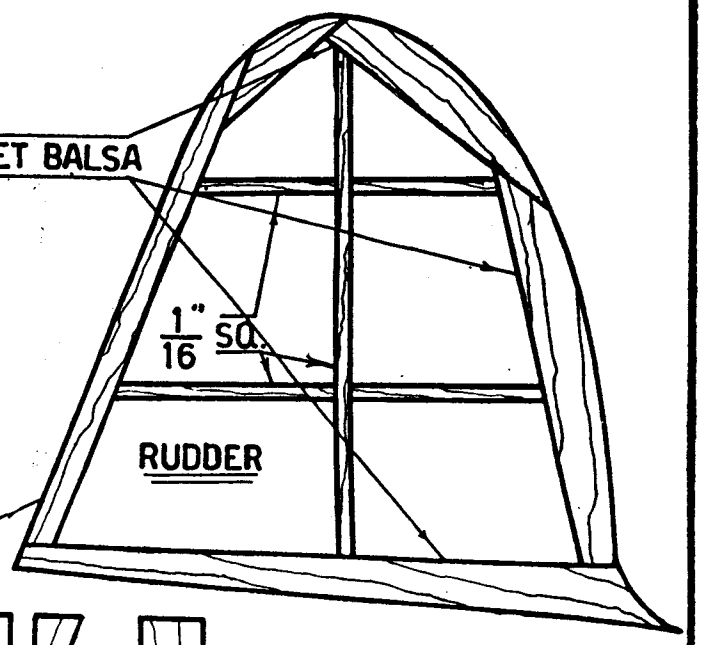
FRONT VIEW

1/16" SHEET BALSA

1/16" SQ.

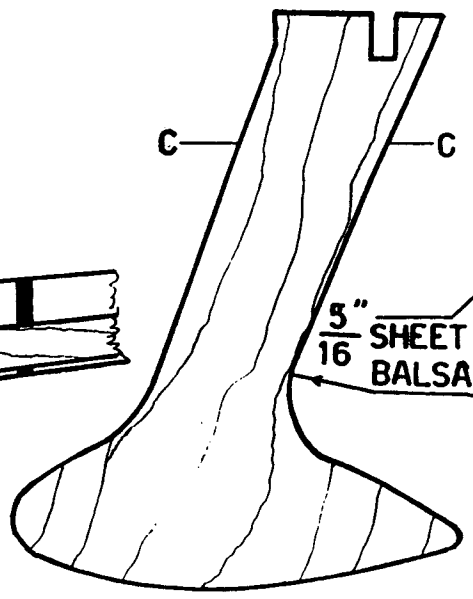
RUDDER

1/16" X 1/8"

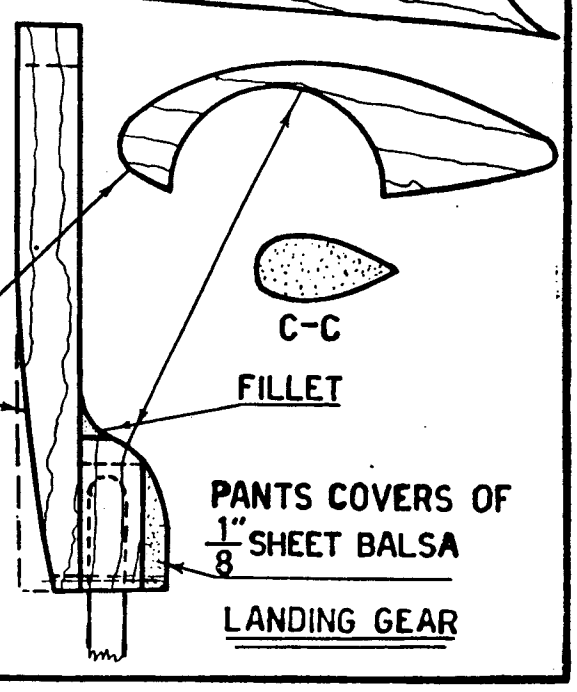


C

C



5/16" SHEET BALSA



C-C

FILLET

PANTS COVERS OF
1/8" SHEET BALSA

LANDING GEAR

PLATE 3

K

B4

B5

B6

RUDDER

CARVE TO
FIT BODY &
HOLLOW OUT

B10

B9

B8

.034 WIRE

1/8" SHEET BALSA

K

POSITION OF WING FILLET

R-5

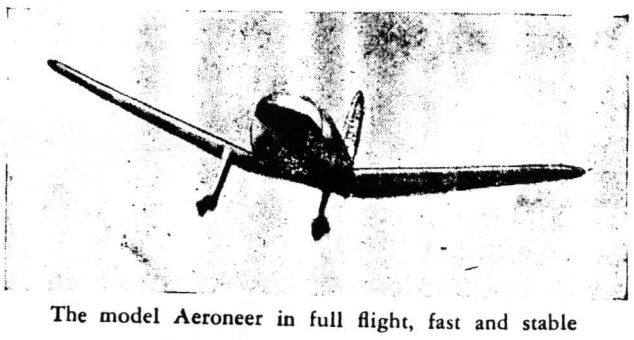
5/32" X 1/2"

VIEW OF REAR BLOCK

STABILIZER

THE AERONEER TAKES FLIGHT

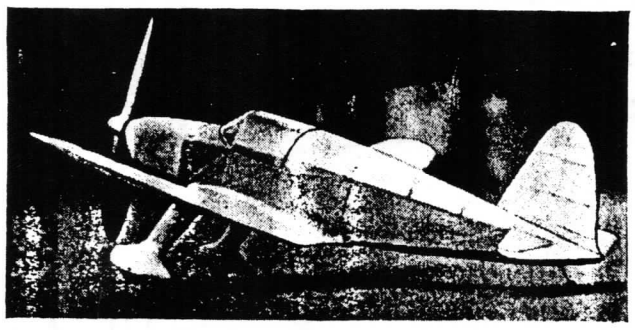
Complete Your Fleet of Flying Scales by Building This Realistic Simple High-Performance Sportplane



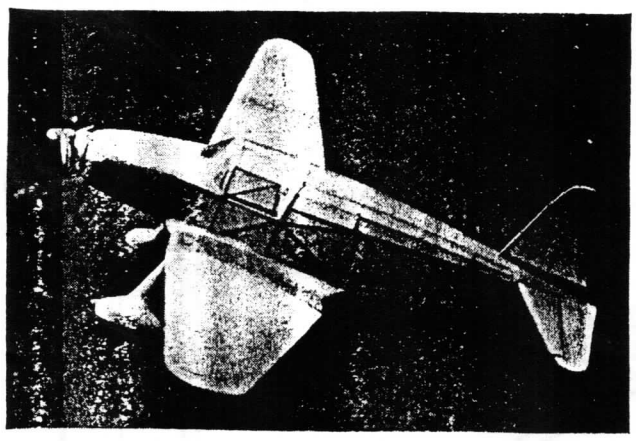
The model Aeroneer in full flight, fast and stable

BY HERBERT SPATZ

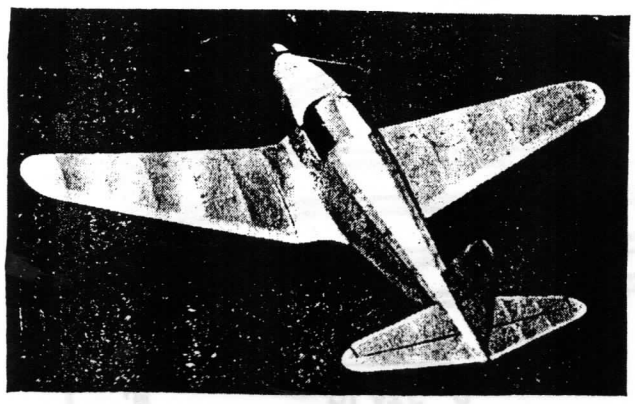
Model Airplane News · April 1941



Its large propeller provides long flights



Streamlined and graceful yet of simplest construction



A large wing facilitates ground take-offs

A LOW-WING, all-metal, sportplane of exceptionally clean design is the Aeroneer. The 125 hp. Menasco C-4 engine pulls it at a 150 m.p.h. clip. Besides being moderately priced the ship carries many accessories, including an electric starter, hydraulic brakes and wing flaps, which bring the landing speed down to 41 m.p.h.

Our model is accurate in all respects, except those usual changes necessary to produce a good flying scale model. In action it makes a beautiful sight, leaping into the air and making long fast flights. Indeed the Aeroneer makes a worthy addition to any model builder's fleet. Well, let's start; what're we waiting for?

Aeroneer 1B—(Menasco, 125 h.p.)

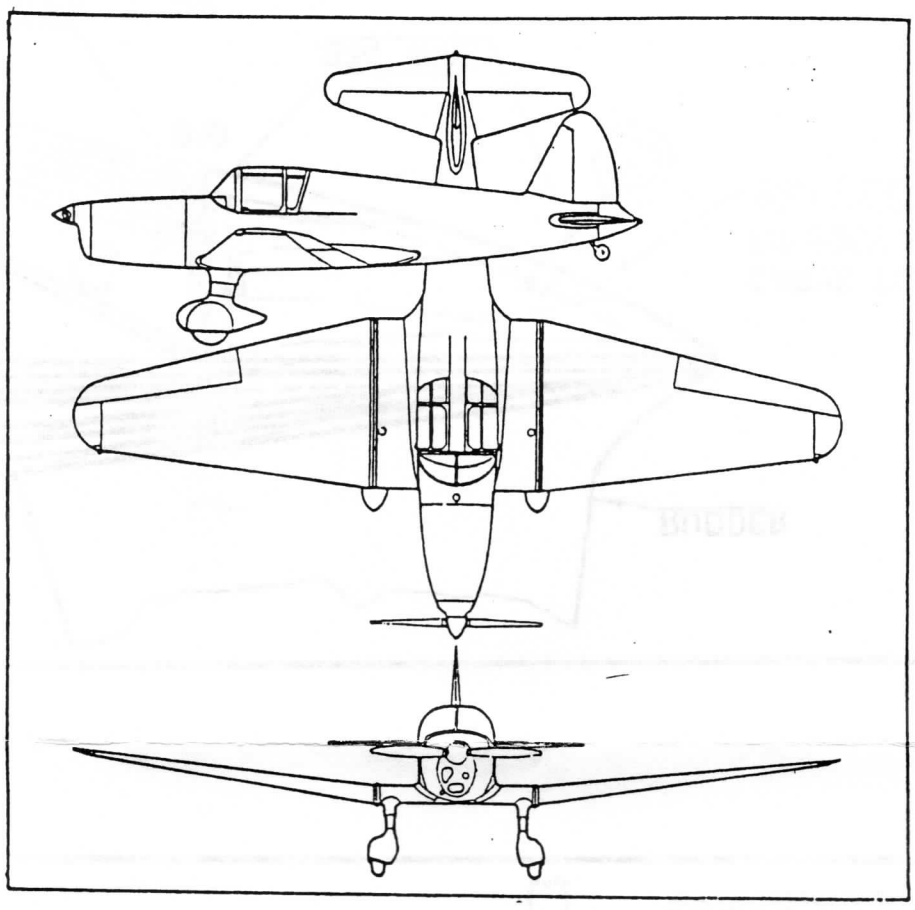
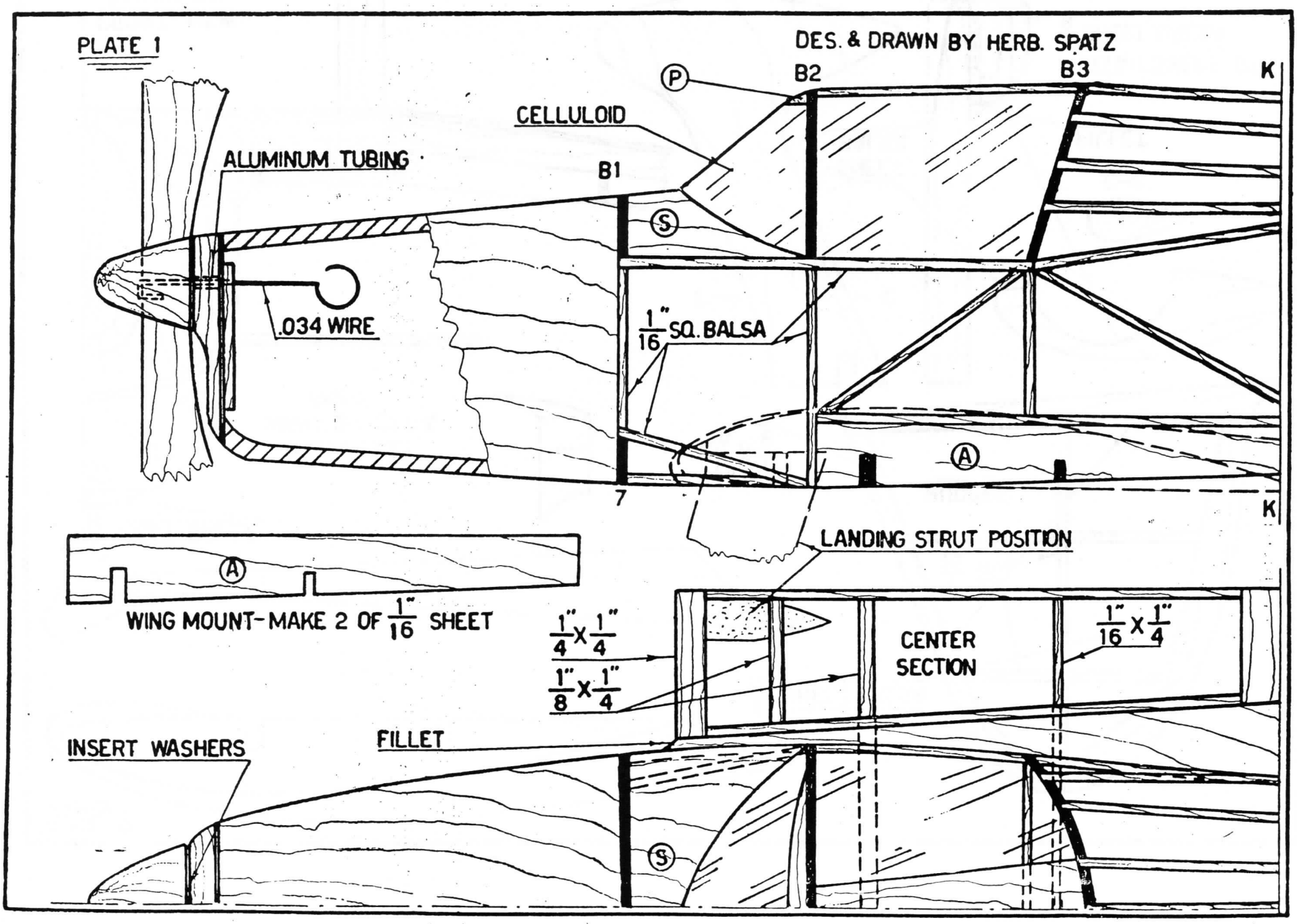
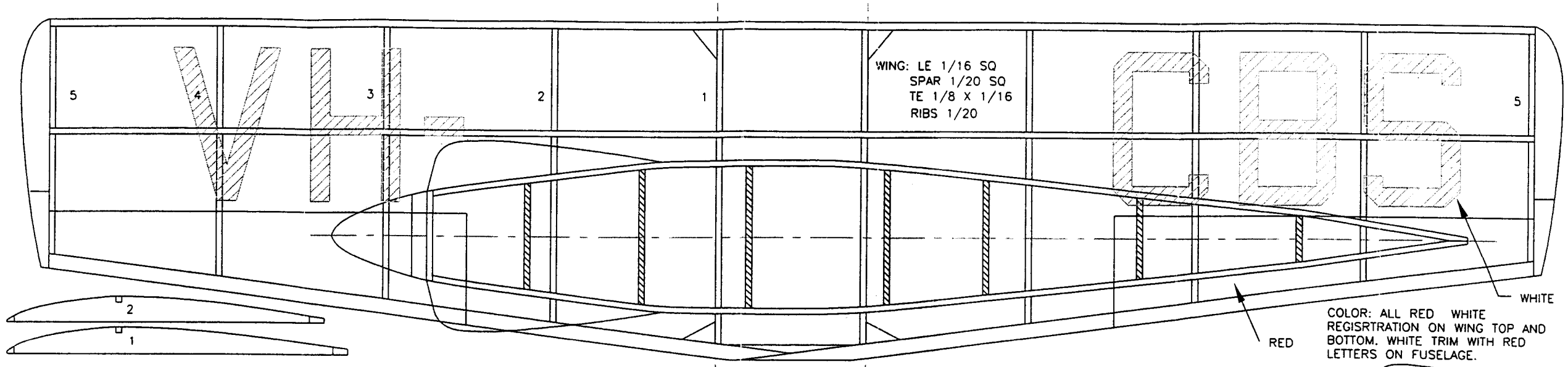


PLATE 1

DES. & DRAWN BY HERB. SPATZ





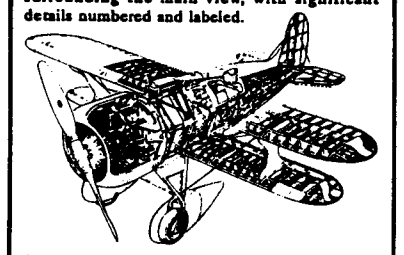
LAIRD LCDW 500

SUPER SOLUTION

19½" X 29" (495 mm X 735 mm)

This magnificent and meticulously executed cut-away illustration reveals all the construction features of Jimmy Doolittle's historic, record breaking aircraft of the 1930's.

Printed in sepia ink on cream, linen finish, heavy stock this beautiful conversation piece will grace any office, den or waiting room. The complete print contains many smaller detail sketches surrounding the main view, with significant details numbered and labeled.



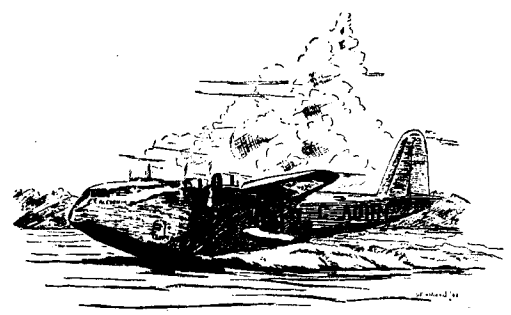
An invaluable reference work for keen students of aero engineering and modelers. ONLY 500 COPIES WERE PRINTED.

U.S.A.: $30.00 post paid
Overseas: $40.00 US funds only.

JIM NEWMAN TECHNICAL ART
4 Cleveland Terrace
Hobart, Indiana 46342 U.S.A.

There It Is!

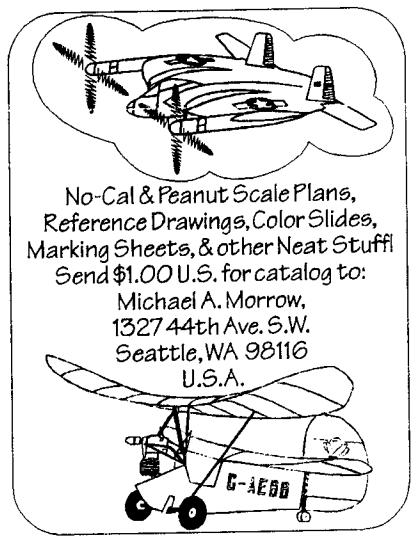
The Blacksheep Club of Burbank, CA stocks 23 different models of Stefan Gasparin's CO2 Engines and (8) different models of the G-Mot line. All made in the Czech Republic. For information write:
Roy Hanson
21410 Nashville Street
Chatsworth, CA 91311
—or—
http://blacksheepsquadron.com/



SERVOS DIRECT

HIGHEST QUALITY SERVOS

.32oz. SUB MICRO with BALL BEARINGS $19.00
CA INSTANT GLUE LARGE 2oz. BOTTLE $4.00
POLYESTER L W TISSUE 20" X 72" $6.00
FOR CATALOG OF ACCESSORIES SEND A SASE
BALSA PRODUCTS 122 JANSEN AVE. ISELIN, N. J. 08830



No-Cal & Peanut Scale Plans, Reference Drawings, Color Slides, Marking Sheets, & other Neat Stuff! Send $1.00 U.S. for catalog to:
Michael A. Morrow,
1327 44th Ave. S.W.
Seattle, WA 98116
U.S.A.

PLATE 4

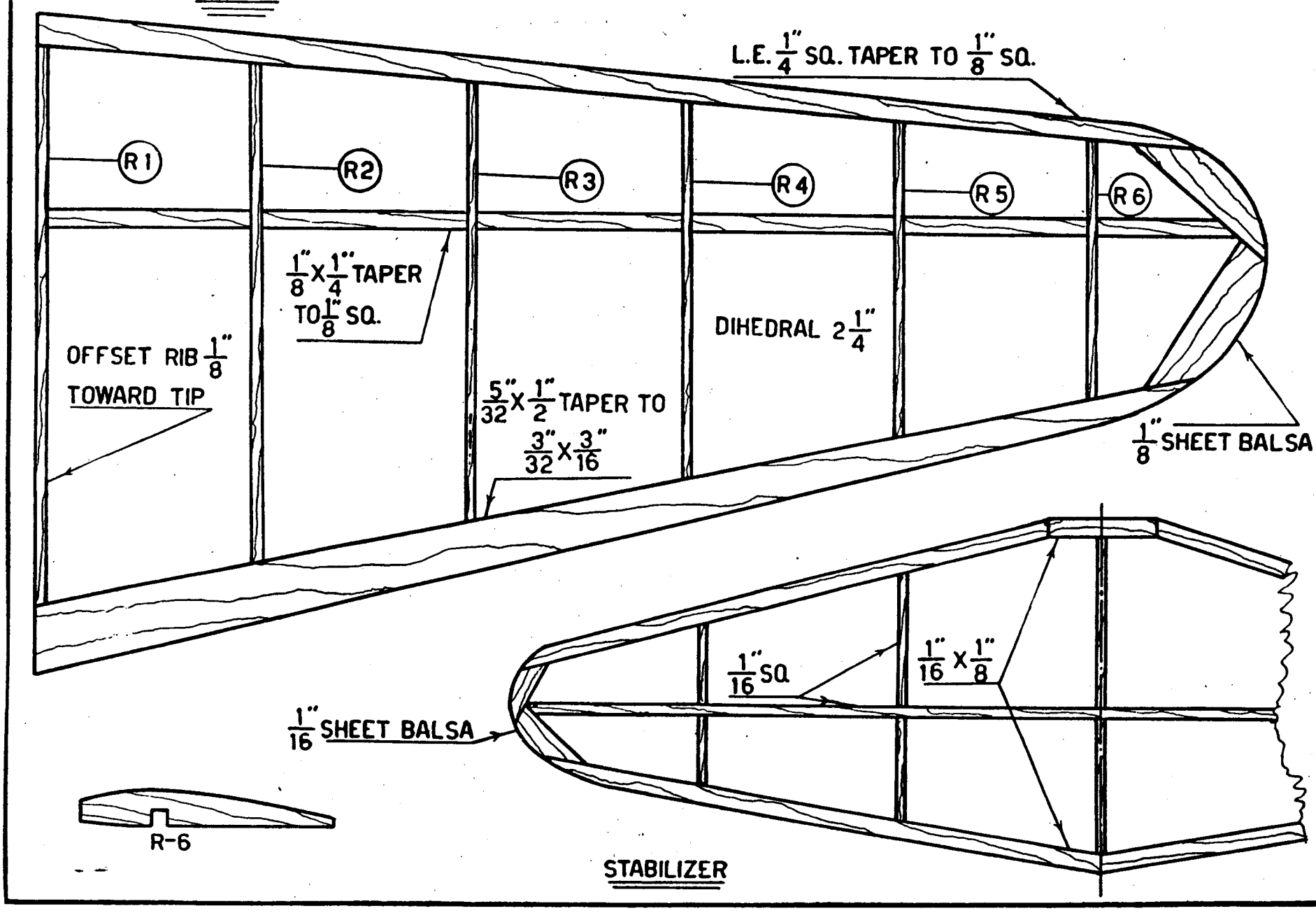
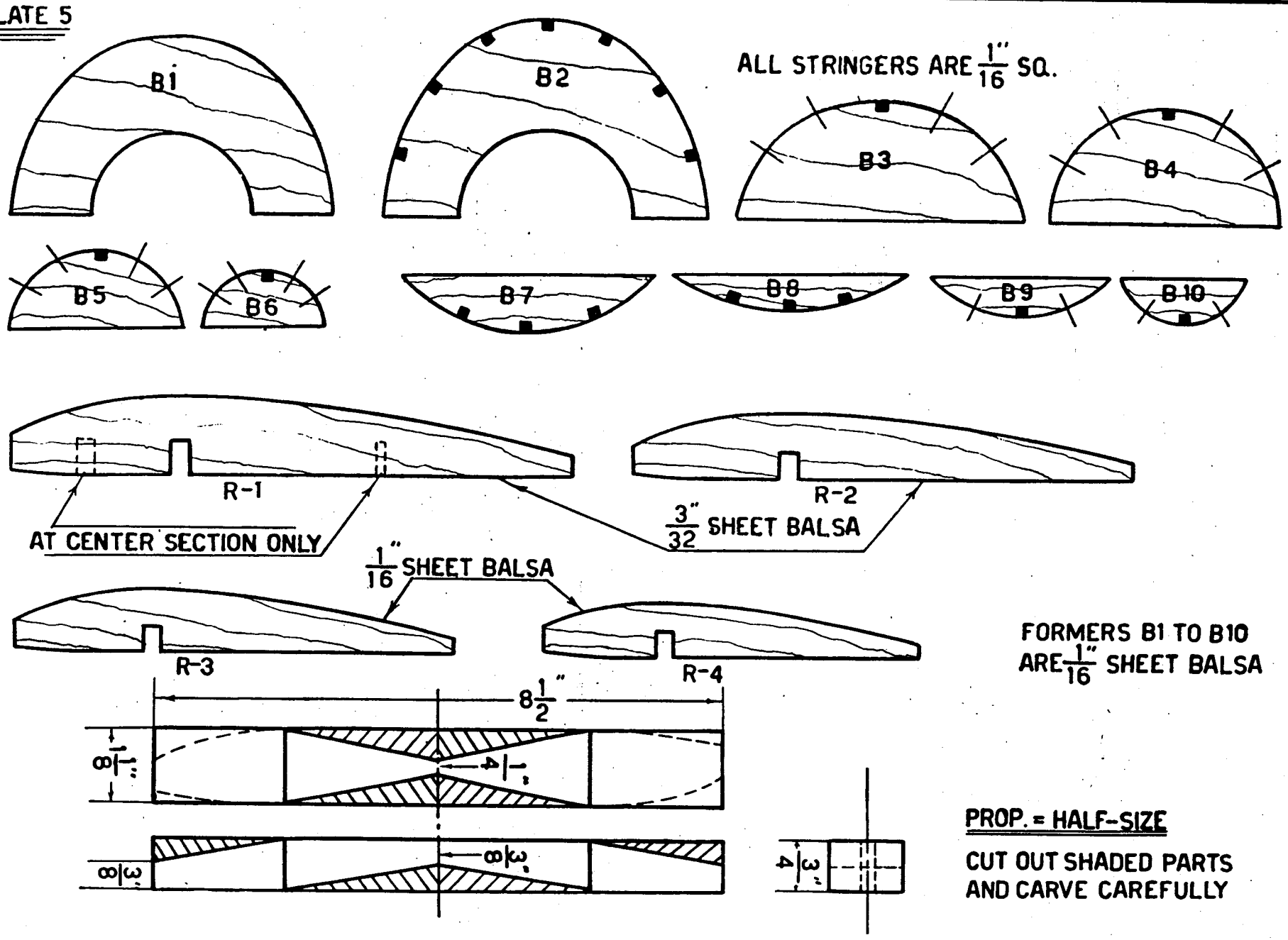
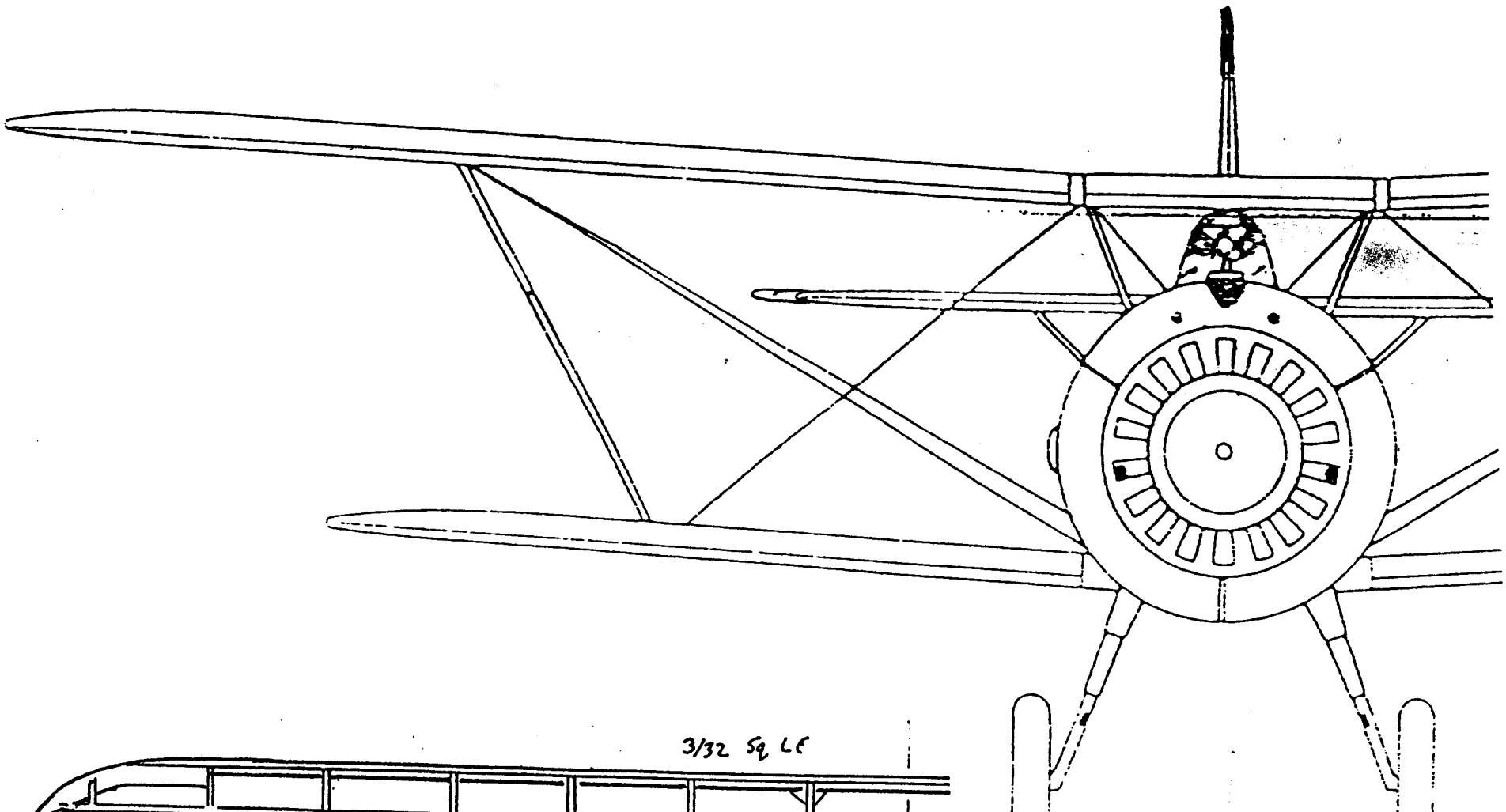
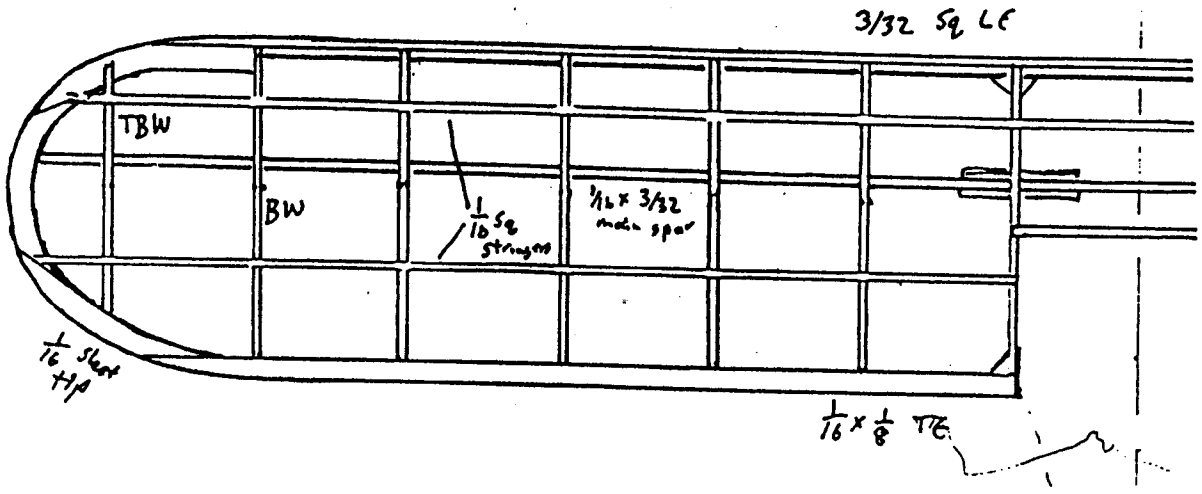


PLATE 5

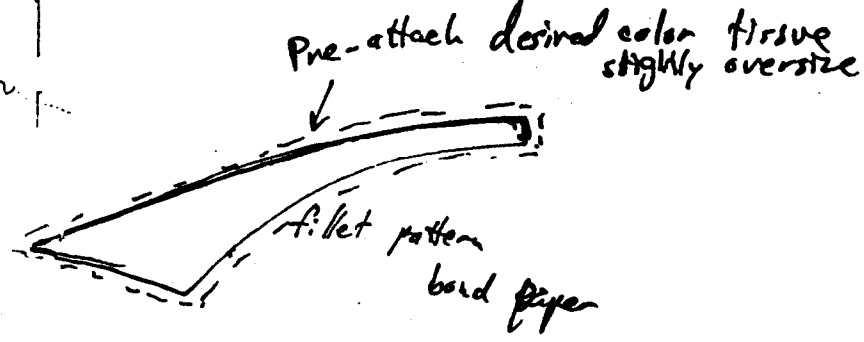


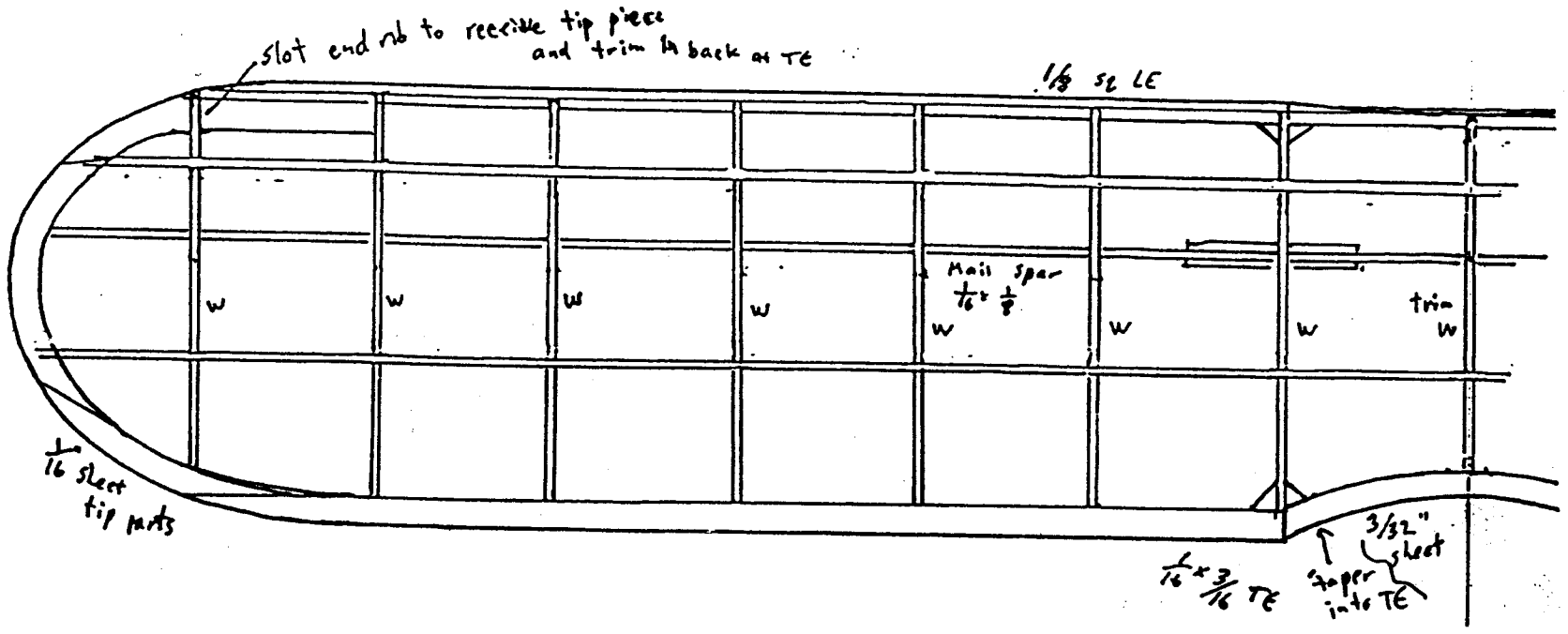


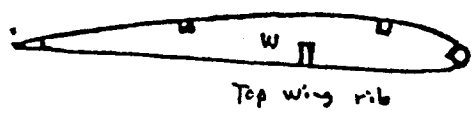

3/32 Sq LE
TBW
BW
1/16 Sq stringers
1/2 x 3/32 main spar
1/16 sheet tip
1/16 x 1/8 TE

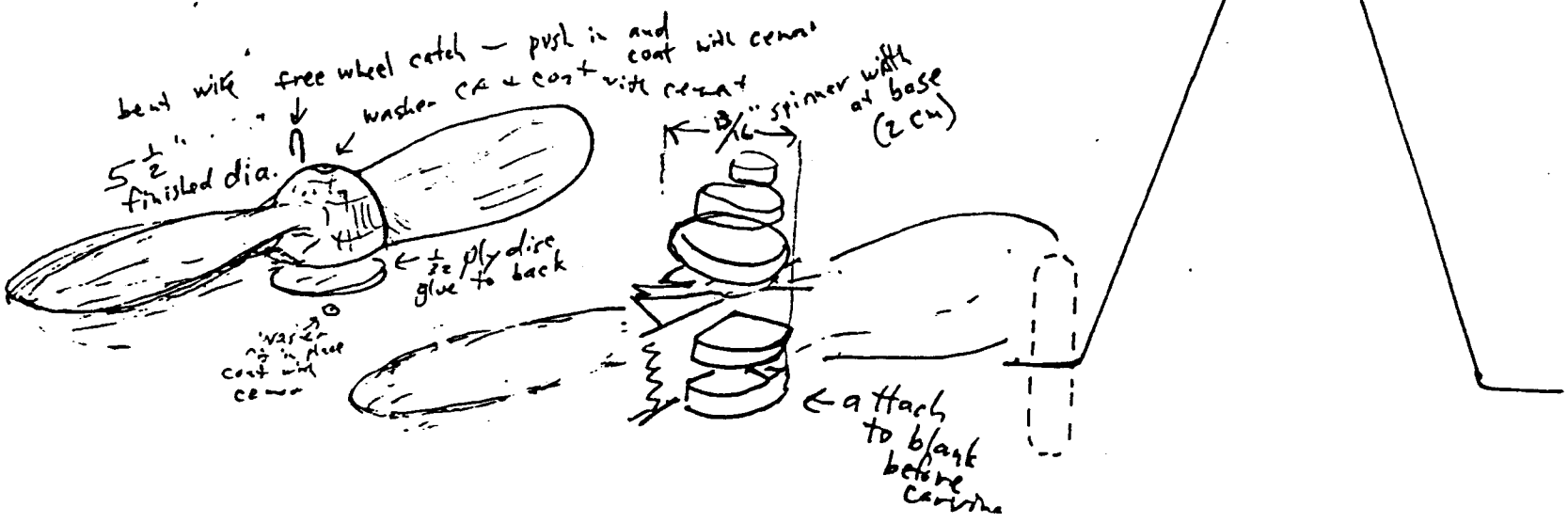

BW

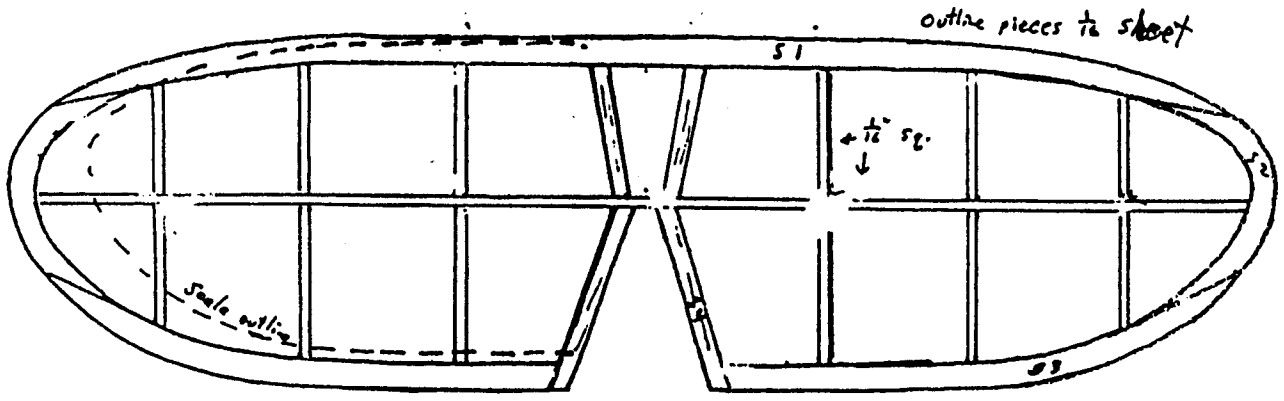

TBW

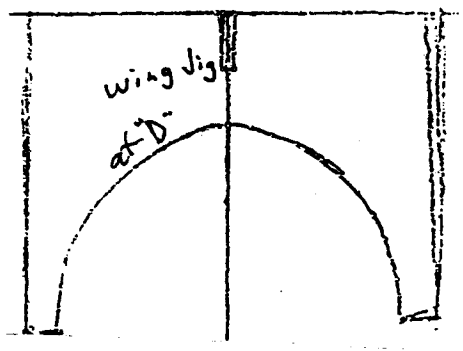

Pre-attach desired color tissue slightly oversize
fillet pattern
bond paper

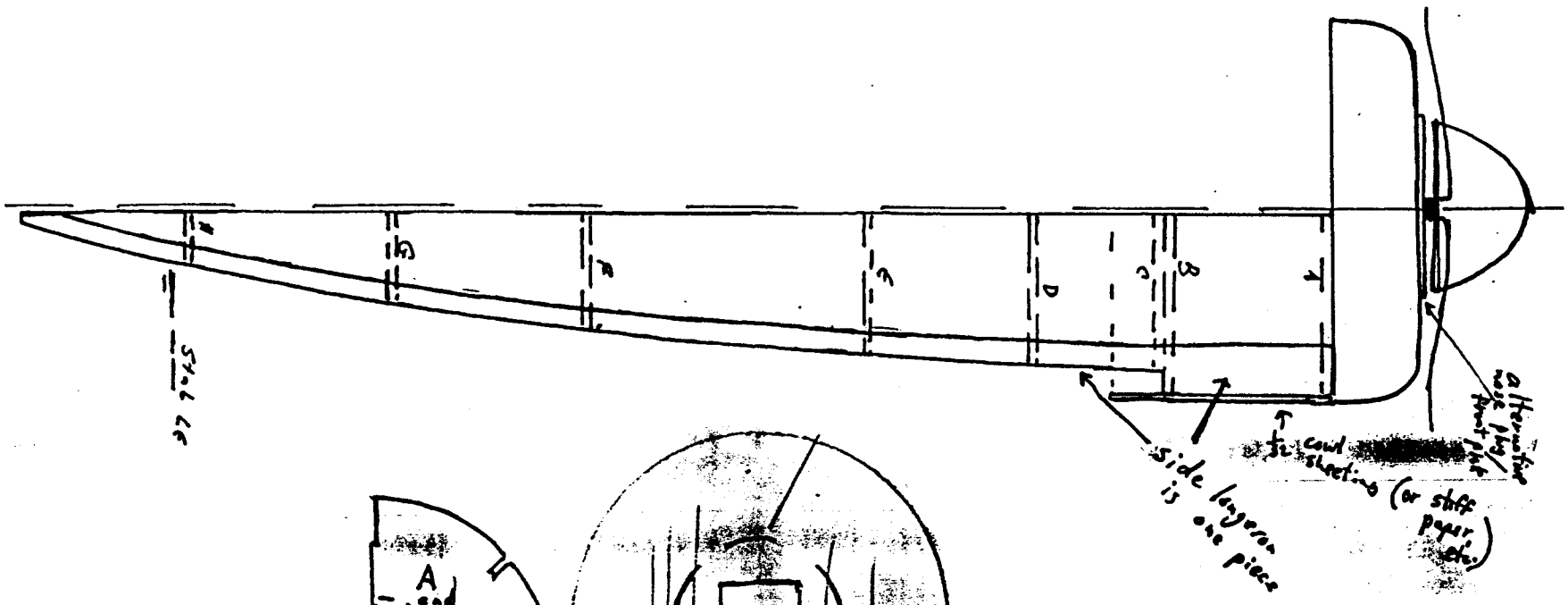

slot end rib to receive tip piece and trim in back at TE
1/8 Sq LE
W
Main spar 1/16 x 1/8
trim
1/16 sheet tip parts
1/16 x 3/16 TE
3/32" sheet tapper into TE

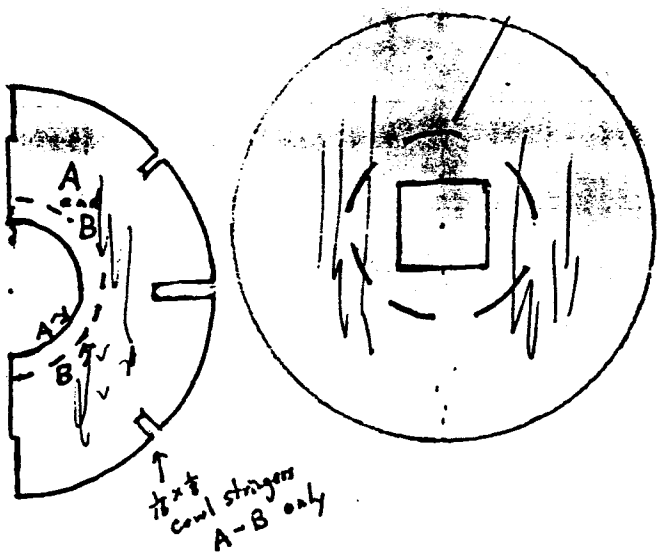

W
Top wing rib


bend wire free wheel catch — push in and coat with cement
washer CA & coat with cement
5 1/2" finished dia.
1/32 ply disc glue to back
warp in disc coat with cement
3/16" spinner with at base (2 CM)
attach to blank before carving

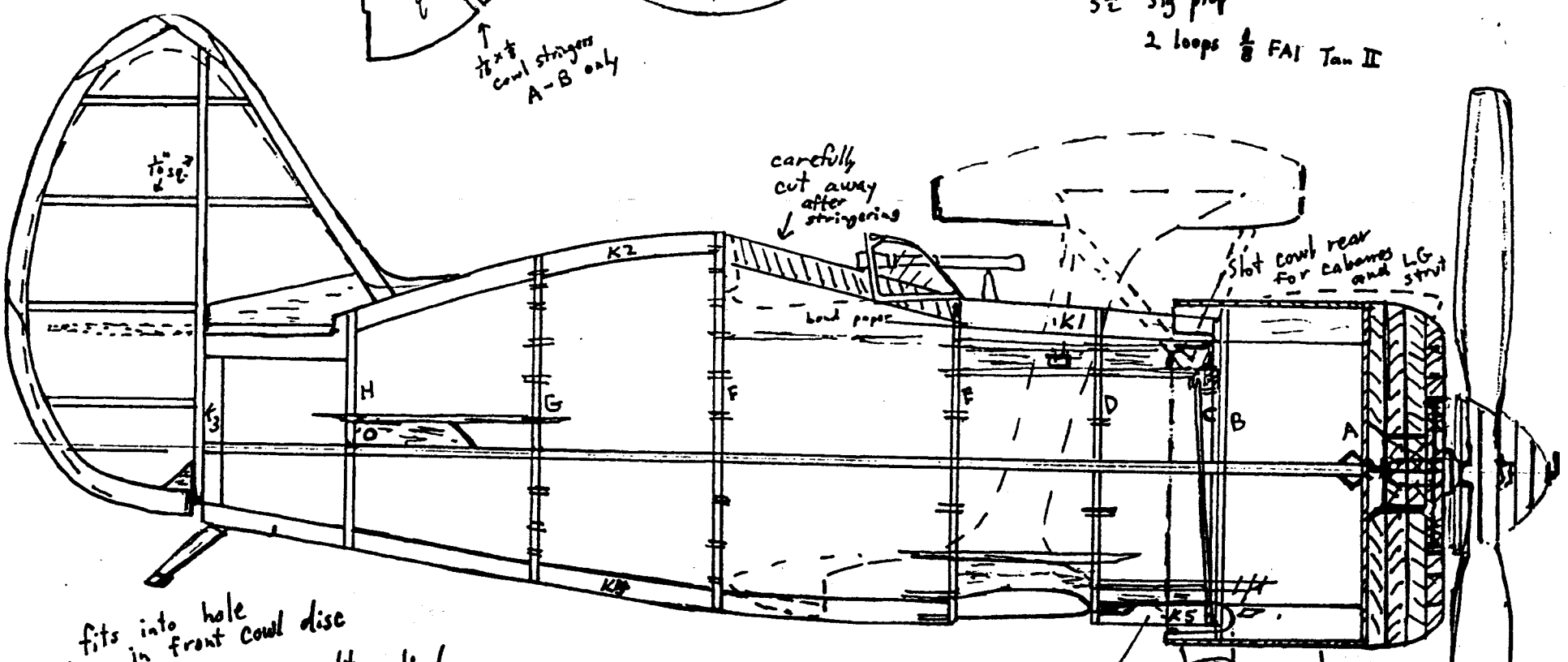


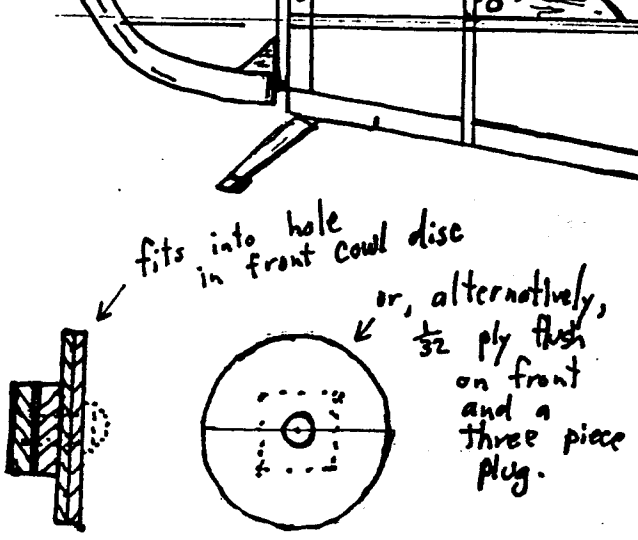


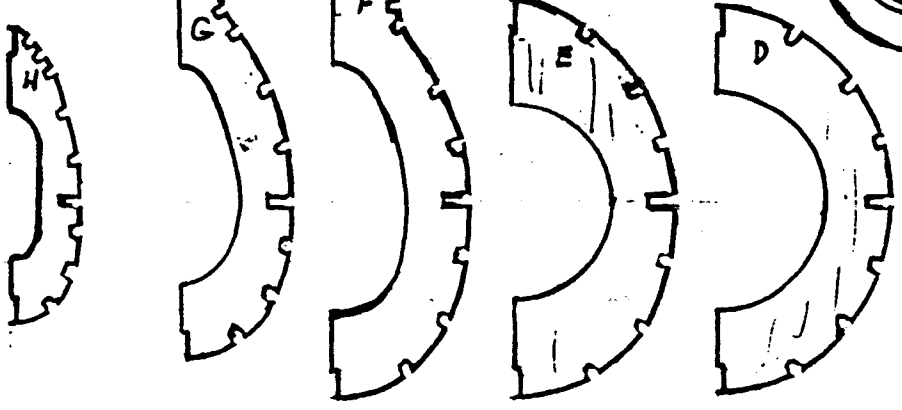




5½" Sig prop
2 loops ⅛ FAI Tan II

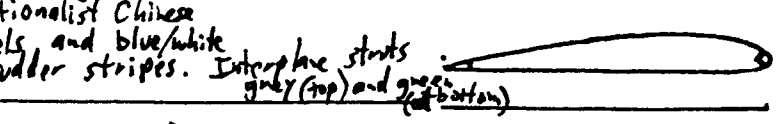


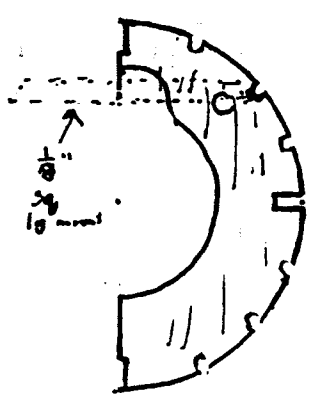




Coloring:

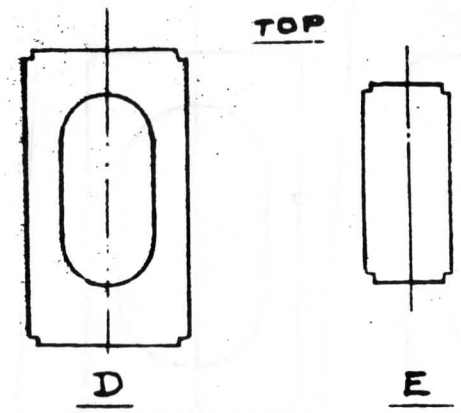
Dark Green on Top surfaces and fuselage. light grey or pale light blue on bottom of wings and stab and fuselage bottom almost up to cowl ring. (rounded off) Nationalist Chinese roundels and blue/white rudder stripes.

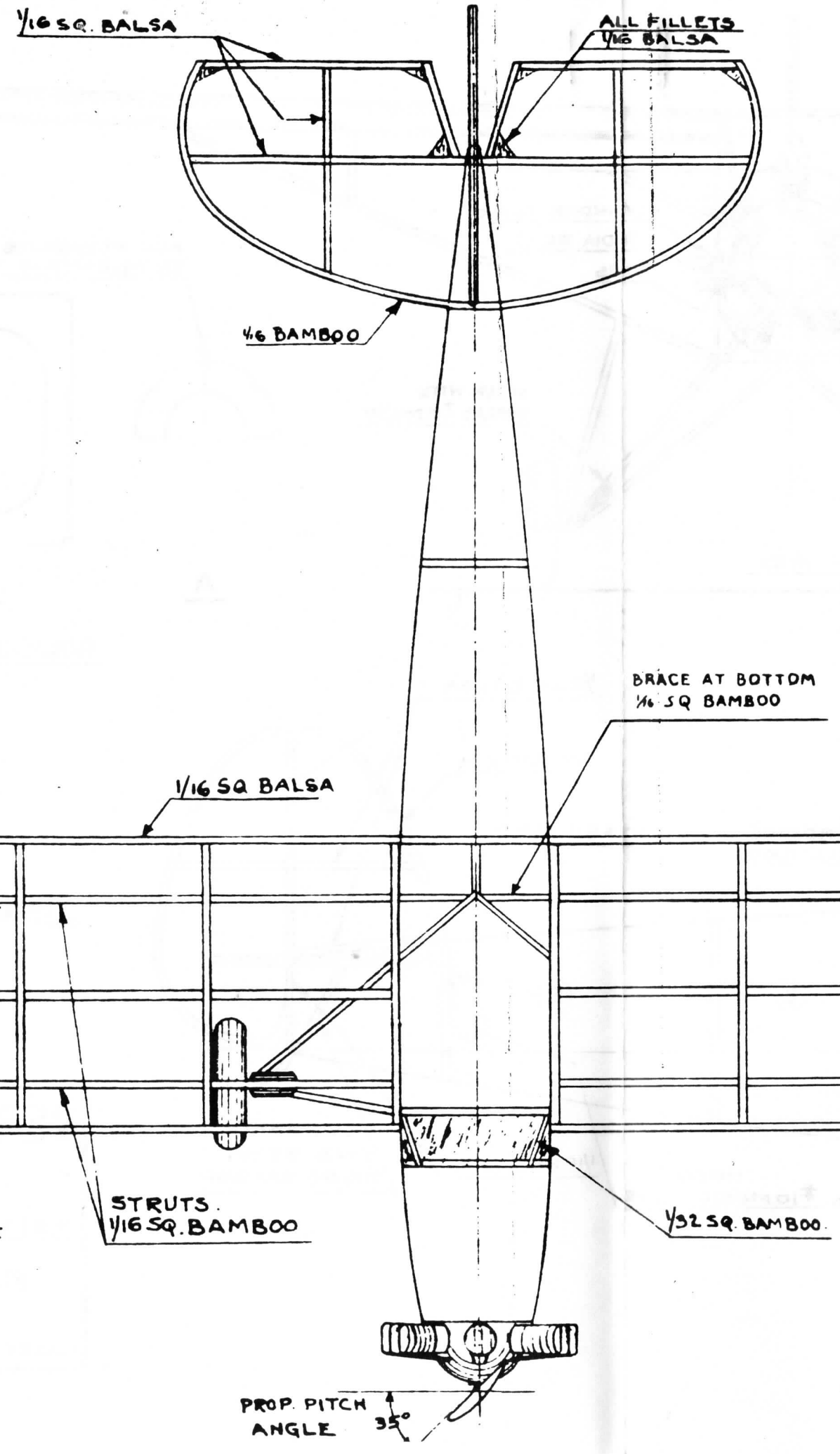




Polikarpov I-15 bis (I152) 1/24" Scale ½" = 1' 16.73 inch span

Armored, 4 gun fighter used in Spain and in China during the Sino-Japanese war.





VERVILLE AIR COACH

Study the plans carefully before you start to build. Fit and cement each joint and allow at least a half hour for cement to dry.

To form bamboo, hold over a candle or alchohol flame. Use razor blade for cutting out printed balsa pieces.

Carefully cut out all fuselage bulkheads from printed balsa sheet. Carefully shape balsa nose block. Cement longerons into notches in bulkheads and cement nose block to ends of the longerons. Cut stringers, cabin window braces, etc then cement in position. Cylinders are either dowels or corks cut to length and cemented into place around nose block.

Cut out printed ribs, then assemble and cement wing, rudder and stabilizer by laying parts directly on plan. .. Cover, wings, rudder and stabilizer with colored jap paper by applying a light coat of paste to framework, then stretching paper as tighty as possible.

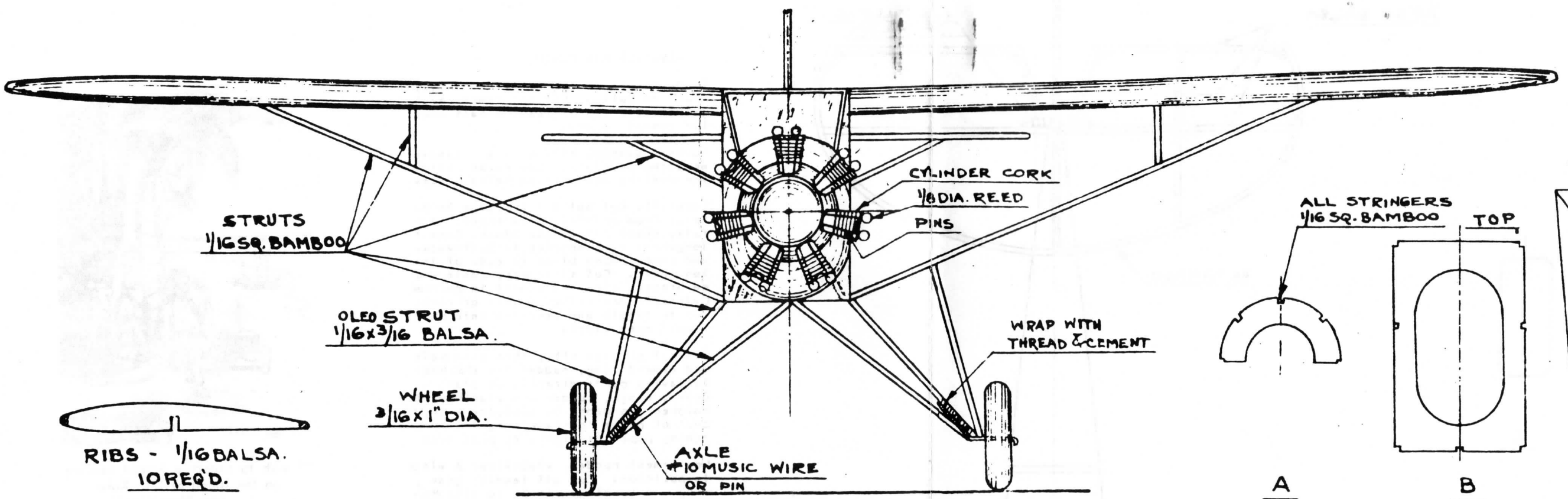
Now cement rudder, stabilizer & wings in position. Cut all landing gear , wing and fuselage struts to size then cement in place. Cut out and slot the propeller blades, then cement to 1/8" reed hub. Assemble propeller shaft through nose-block, loop rubber band motor between hooks and model is ready to fly.

Color scheme

Fuselage & Rudder -GREEN
Wings & Stabilizer-WHITE
All Struts- - -BLACK INK

"I wish to report a forced landing on the Island of Oko Koko . . . last November!"

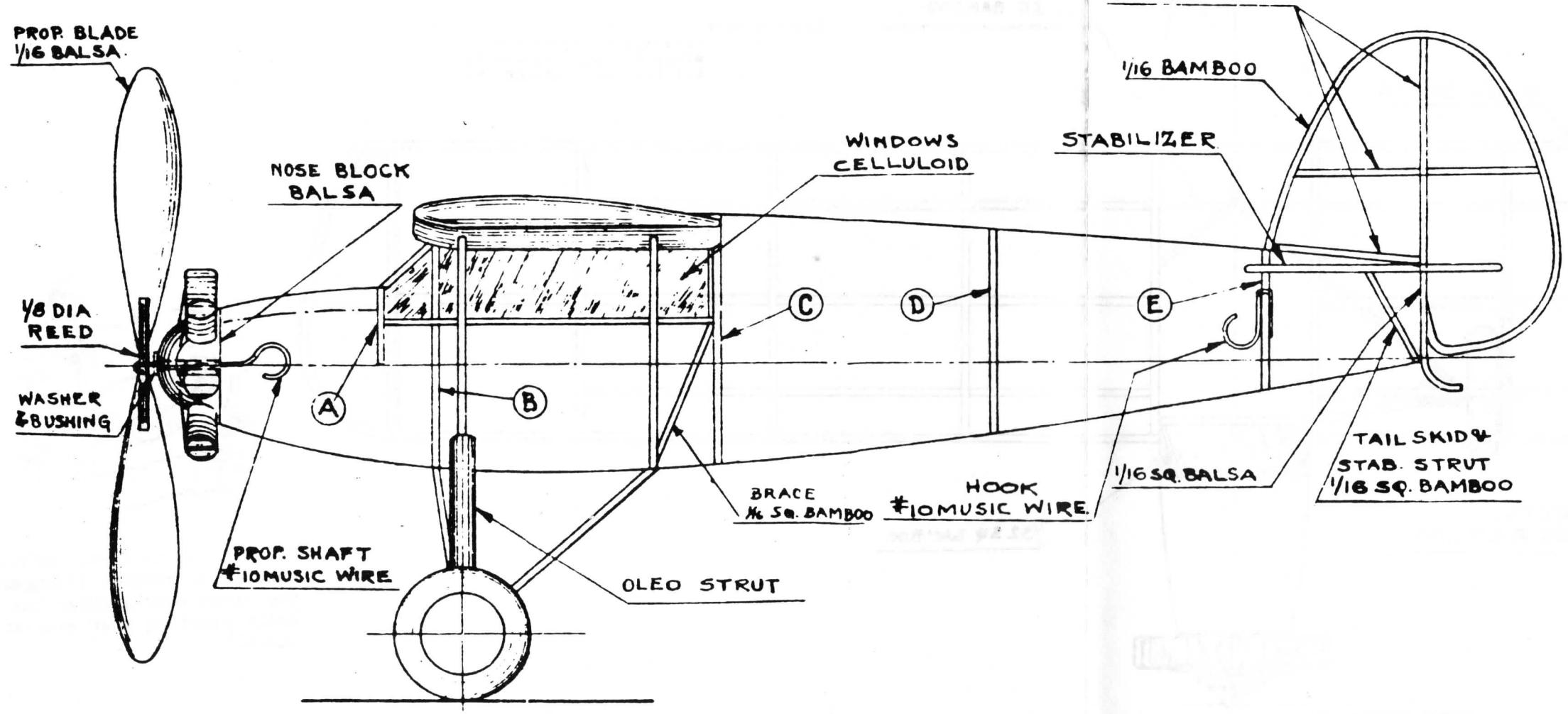
"I think it is a very pretty necktie -- however I suggest you never wear another one while starting your quarter scale!"



RIBS - 1/16 BALSA.
10 REQ'D.

BULKHEADS

1/16 BALSA



VERVILLE AIR COACH

14" WING SPAN

FLYING SCALE MODEL

FULL SIZE DRAWING

PUBLISHED BY
SELLEY MFG. CO 1377 GATES AVE BKLYN. N.Y