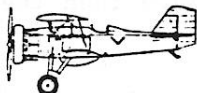
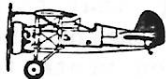


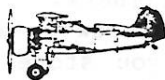
Curtiss TS-1 (FC-1)



Curtiss F6C-4



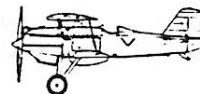
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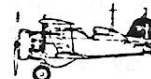
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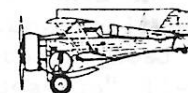
Vought VE-7SF



Curtiss F6C-3



Boeing F4B-4



Curtiss BF2C-1

# MAX - FAX

THE NEWSLETTER OF THE D.C. MAXECUTERS

MAY/JUNE '84

## MEMBERSHIP

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

DUES REMINDER



## PRESIDENT

DAN DRISCOLL  
2000 S. Eads St., #301  
Arlington, VA 22202

## SECRETARY

TOM SCHMITT  
11014 Marcliff Road  
Rockville, MD 20852

## TREASURER AND NEWSLETTER EDITOR

ALLAN SCHANZLE  
20008 Spur Hill Dr.  
Gaithersburg, MD 20879

## MEETINGS

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

## UPCOMING EVENTS

EVERY FRIDAY EVENING: FUN FLY AT COMSAT FOLLOWED BY A SANDWICH AT ROY ROGERS

JULY 14, 15: FAC NATS, UTICA, MI

SEPT 8: MAXECUTER SUMMER FUN FLY AT COMSAT

## CLUB NEWS

Allan Schanzle

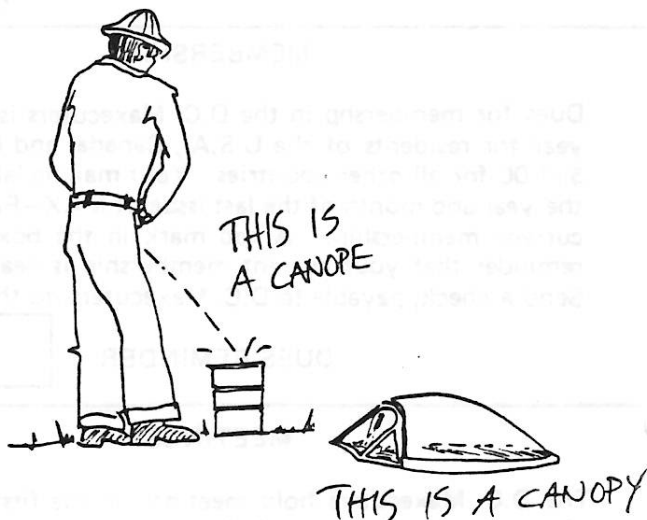
THE FRIENDLY postperson probably got a hernia hauling in the correspondence over the past few months. Several of you folks wrote to express appreciation for the contents of "THE LIGHTPLANE...". And good ole Bill Warner, who scribed nice words about MAX-FAX in the April issue of MODEL AVIATION, was the cause of an influx of new memberships - at least 11 so far. Thanks, Bill, but if the mailing list gets any bigger, I may develop second thoughts about expanding this endeavor.

Tony Peters, in New York City, also wrote to say, "I think your newsletter is great-- for someone like me who is interested in rubber scale, it is a mega-vitamin supplement to the empty calories of the regular magazines, filled as they are with RC and other large/noisy and expensive pursuits." While what Tony says is nice to hear, he may have hit precisely on why AMA had less entries in rubber scale at last year's NATS than the FAC events held the same week.

Another resident New Yorker, Leon Bennett (alias, the Glue Guru) noted my inept abilities at spelling (Gee, I wonder if he's related to my grade school teacher, Mrs. Bennett, who also told me, via a seemingly endless string of "C's" in spelling, that this was not my long nor strong suit). Anyway, Leon noted my consistent misspelling of the word "canopy" (which was spelled "canope") in the last issue of MAX-FAX. Leon wrote to say, "One minor technical point. While I am not keen on Guillow kits, I rather doubt that even Guillow would supply a canape along with the usual load of creosoted timbers. (Oh Leon, Leon,...Leon. If you're going to criticize my spelling, thou shalt not screw up and misspell "creosoted". Ed.) Even if such a delicacy is provided, how do you store it without drawing bugs? I find it easier to use a canopy. These are made of clear plastic and don't draw bugs.

Now I know that my eyesight is failing in middle age years, but nowhere did I write "canape". Hum....I can't spell, and Leon can't read. I think I'll offer to put him on our editorial staff. He'll fit in just fine.

Paul Gaertner, from Charlottesville, VA., also noted my misspelling, and expressed his opinion via the cartoon to the right. Beautiful, Paul,..., just beautiful. Paul spends his daylight hours at the U. of Virginia, and he recently sent a list of items that this institution of higher learning has acquired from the now defunct Wings and Wheels Museum. In addition to the many model magazines, Paul notes the following more unusual items:



|                                     |   |
|-------------------------------------|---|
| Aero Digest                         | 1924-1956                                 |
| the AEROPLANE                       | some from the '30's; solid from 1943-1953 |
| AEROPLANE MONTHLY                   | 1975-1980*                                |
| AIR CLASSICS                        | 1964-1980                                 |
| AIR POWER                           | 1971-1980                                 |
| AIR PROGRESS                        | 1961-1979                                 |
| AVIATION ... bound                  | 1916-1947                                 |
| FLIGHT                              | 1938-1950, 1952-1956                      |
| FLYING (begins as POPULAR AVIATION) | 1935-1980                                 |
| Hawker-Siddley Review               | 1952-1959                                 |
| RAF FLYING REVIEW                   | 1957-1961                                 |
| SPORT AVIATION                      | 1958-1967, 1972-1973, 1978-1981           |
| SPORT FLYING                        | 1967-1975                                 |
| WINGS                               | 1971-1980                                 |

\*Fairly complete

If you're going to be in the area of Charlottesville, Virginia, you might want to communicate with Paul in advance and perhaps he could arrange for a personal viewing. Contact Paul at 122 Georgetown Green, Charlottesville, VA 22901.

Tom Schmitt wrote the FAC NATS C.D., Ralph Kuenz, to clarify a few points on the Golden Age and Racing mass launch events. Tom asked:

1. Does Golden Age "fixed gear" include those aircraft with retractable gear (such as F3F) but constructed with gear down?

2. Do racing events include all planes designed or used for races such as Waterman or Dayton Wright? (At one time, planes like the Page Racer and Mr. Mulligan were not allowed in the racing events.)

Ralph responded with the following:

1. Fixed gear means "fixed". No "plug-in" gears allowed for aircraft that had retractable mechanisms. This falls into the "spirit of the event". (Three cheers, Ralph!! Ed.)
2. Thompson Trophy - open to models of all pre-WW-II aircraft with radial engines that raced or specifically built for racing.

Grove Trophy - Same as Thompson, but for inline engines. Dayton Wright and Waterman Gosling qualify.

The final correspondence came from Jad Sherbo (RT 1, Box 83, Marion Station, MD, 21838. Jad writes to say, "I'm currently obsessed with electric 'Round the Pole' flying, an English idea, and have written to a hobby shop in England who I managed to locate, for some basic components and more information. Sure looks like fun. No bell cranks or elevator movement used. Control is done by varying speed of electric motor using rheostat. Do you know anyone I can write for additional information on RTP?" Jad also asked if any of the old timers know anything about a model called "Babe Ruth". Contact Jad if you can help.

THE LOCAL Maryland Public TV network presented a 2 hour viewing of "THE KID WHO COULDN'T MISS", a historical review of Billy Bishop, Canada's WW-I flying ace. It featured numerable views of aircraft I couldn't identify, and perhaps they were mongrals, much like the Tiger Moths made to look like German WW-I crates in "THE BLUE MAX". But the show was interesting and informative. If it's scheduled in your area, take the time to grab a cool one, prop up your feet, and get entertained.

HELP!!! Has anyone out there covered highly swept airfoiled wings with tissue, and without a bunch of wrinkles? I recently covered 45 degree swept surfaces and got wrinkles WITHOUT the structure giving, which is the usual cause of covering flaws in the corners. I tried running the tissue grain cord-wise, span-wise, and parallel to the leading edge, but all produced wrinkles. Even wet covering produced the same unsightly characteristics. So help! Does anyone have some suggestions?

THE EDITOR OF this bimonthly trash-wrapper has some duplicate MODEL AIRPLANE NEWS magazines that he would like to TRADE, not sell. The specifics include every issue from 1942 thru 1968, with the exception of two in the early 40's. Primary interest is to trade for other model airplane magazines from the 30's, such as Flying Aces, Popular Aviation, Air Trails, Model Aircraft Engineer, Model Aircraft Builder, or others. Practically all of my magazines are complete and in good or reasonable condition with about 5 missing covers. I'll listen to any offer.

AT A RECENT bull session, Bill Winter weakened to demands that he once again build a rubber ship. He acquiesced, provided we can find a set of plans for a "Commander", from a kit made by Construct-A-Plane. It was a typical sport high wing cabin monoplane that he recalls was put out in the early 30's, and was designed by, he thinks, Garafalo. Does anyone know of this model or its plans so we can get Bill off the R/C kick and back to being a "Real Modeler"?

AS YOU KNOW by now, this issue offers another full-sized fold-out, but this time we've got a double treat - two plans. Our feature plan is a GOTHA 147b flying wing, which was designed and built by Jacques Cartigny in France. The plan was sent by Alain Parmentier, who relates that the model is a great flying machine. The second plan is a "typical everyday common garden variety" profile model by Don Snull. We've had a photo of this in flight in previous issues. Since these two models are of German descent, we've

also included a contribution from Paul Gaertner, which appeared in SCALE MODELER, and defines the Luftwaffe markings. Mark Fineman sent an article on bottle formed prop blades, and the results of the March contest are given in detail. Another historical review of a WW-I ace, Billy Bishop, has been taken from the June 1931 issue of M.A.N., which agrees quite well with the T.V. show mentioned earlier. And, as usual, we have some excellent photos, compliments of Tom Schmitt.

PHOTO PAGES

Tom Schmitt

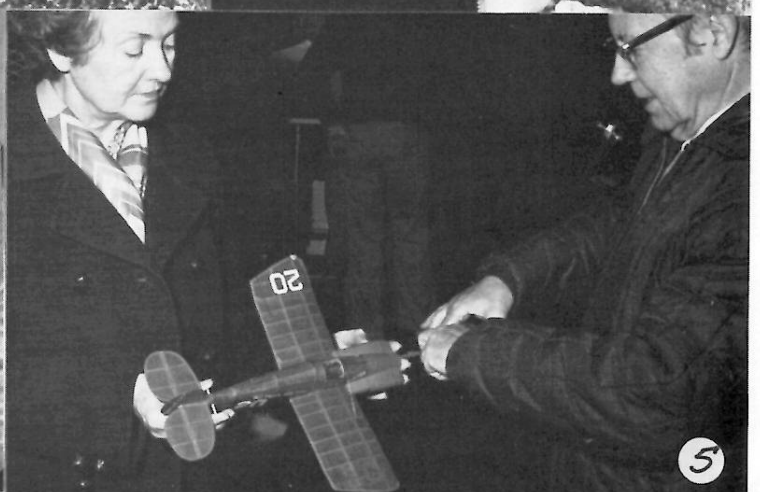
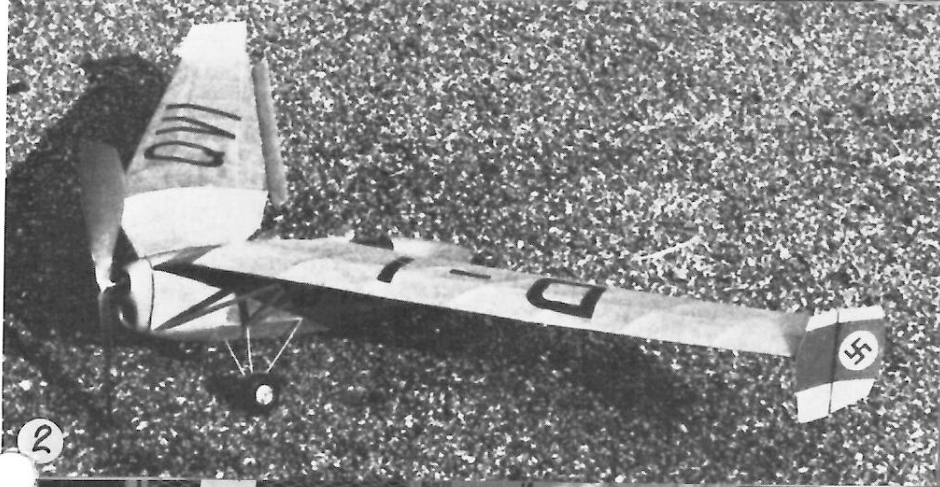
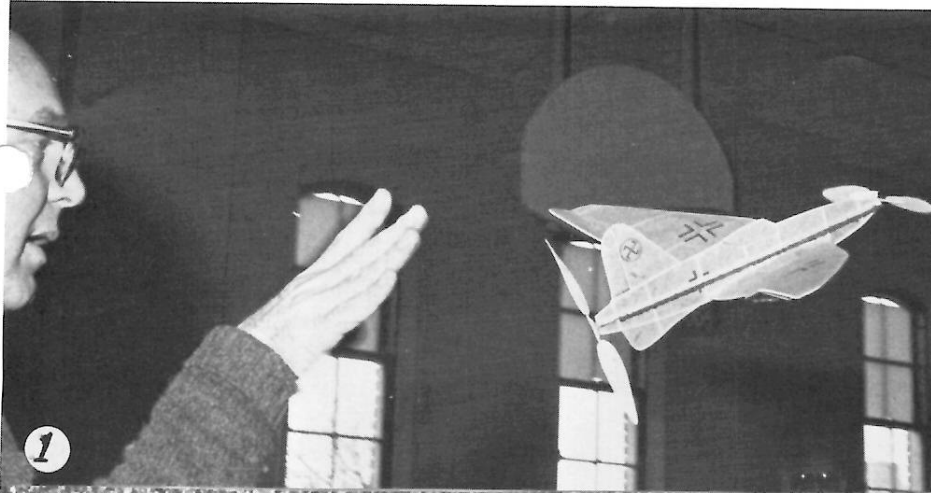
1. One of our two original plans for this issue, a neat push-pull profile model of a Lippisch design in 1942 shown being launched by its creator Don Srull.
2. Our other original plan, a Gotha Go. 147b peanut (9 inch fuselage rules) by J. Cartigny of France; photo courtesy of Alain Parmentier of Montrevil, France. Alain is one of our overseas Maxecuters.
3. J. Cartigny and his unusual flying wing model. Photo from Alain Parmentier.
4. Pat Daily judging FAC scale at our indoor contest in the Navy Reserve Hangar at Andrews A.F.B. this past March. Winning entry of Bill Mitchell, a Gadfly in the foreground.
5. Nancy and Rolfe Gregory with Rolfe's peanut, a Wittman Buster.
6. Dave Rees ready to launch his Martinsyde S-1 in WW-I; eliminated in the third round for a fourth place.
7. Bob Clemens journeyed from New York with a fleet of great flying models; shown here with his Cloudbuster ultralight.
8. Dudley Prisel and his high flying Grain Kitten from Don's plans. Dudley's Lewis gun appeared real enough to get a few rounds at an airship. Don and Dudley swept first and second places in WW-I with their Kittens. See Jan/Feb '84 MAX-FAX for Don's plans.
9. Randy Kleinert shows his smooth launching form with his Peck Cub; flew to third place in peanut event.
10. The bones of Pat Daily's ill-fated Brewster Buffalo. A pretty little model that hit the concrete one too many times.
11. George Mutimer, one of our newer members, test flying his Fly-By-Night Bostonian.
12. Claude Powells nifty F4B-4 flew to third place in the Navy Scale mass launch event.
13. A very pretty Luton Minor by Bob Clemens cruises overhead.
14. A harbinger of spring, Frank Renaut with two of his models in a pastoral setting. Photo by Frank. We are looking forward to seeing you soon Frank.
15. Paul Gaertner's latest handiwork for FAC power scale; count the bonus points for a twin engine CO2 powered model of a Dornier Do 18L flying boat, a one-of-a-kind follow-on to the Dornier "Wal".
16. Never say die Allan Schanzle with his latest, a rubber powered version of the F8U-2. Plans are from an old (1950's) Berkley kit. A flying report will appear in the next issue of MAX-FAX.

FAC SCALE  
 FAC POWER SCALE  
 EMBRYO  
 COMSAT SPEED AND NAVIGATION  
 HAND LAUNCH GLIDER  
 CATAPULT GLIDER  
 MASS LAUNCH  
     WW I  
     GOLDEN AGE  
     RACES  
     WW II  
     MODERN (POST WW II)

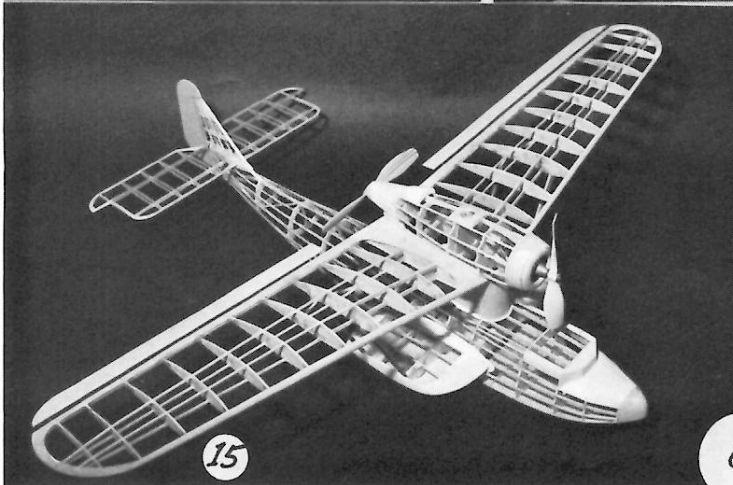
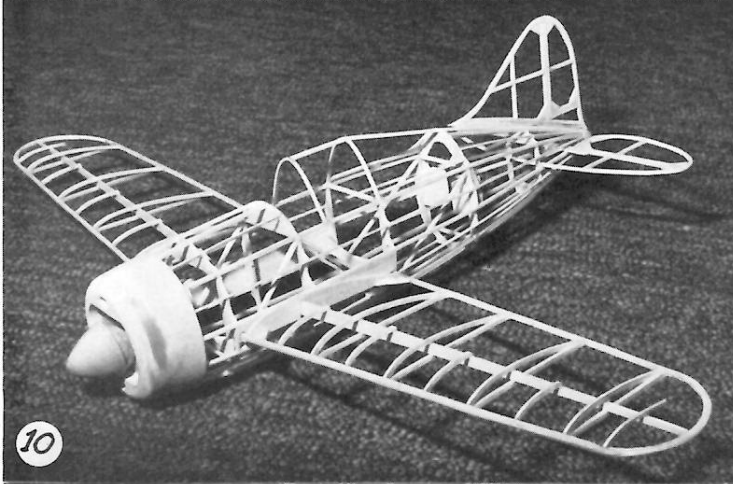
D.C. MAXECUTER'S '84 SUMMER







5.



# A LOOK AT: LUFTWAFFE MARKINGS CODES

BY BRUCE LONG

The size and location of German national markings was well represented in documents intended for the aircraft industry and Luftwaffe field service.

Combat markings and group emblems are not included since no standardization was involved. One must keep in mind, that in the latter part of the war, several changes were incorporated to facilitate faster application and to conserve on materials. The series of drawings on the right are from original documents released at the beginning of the war. Explanation follows below.

## Block 1: Lettering.

The size of all lettering was measured in 'h' units. Normally, 'h' was 6/10 the height of the cross. The size of the cross, however, varied with aircraft size.

## Block 2: Swastika.

Measurements of the swastika also varied with fin or rudder size. No specification is given as to the exact location of the swastika.

## Block 3: Cross.

Top: The dimensions are for the cross as it appears on the upper wing. 'b' varies with size of aircraft.

Bottom: These dimensions are for the under wing and fuselage cross.

## Block 4: Under wing positions.

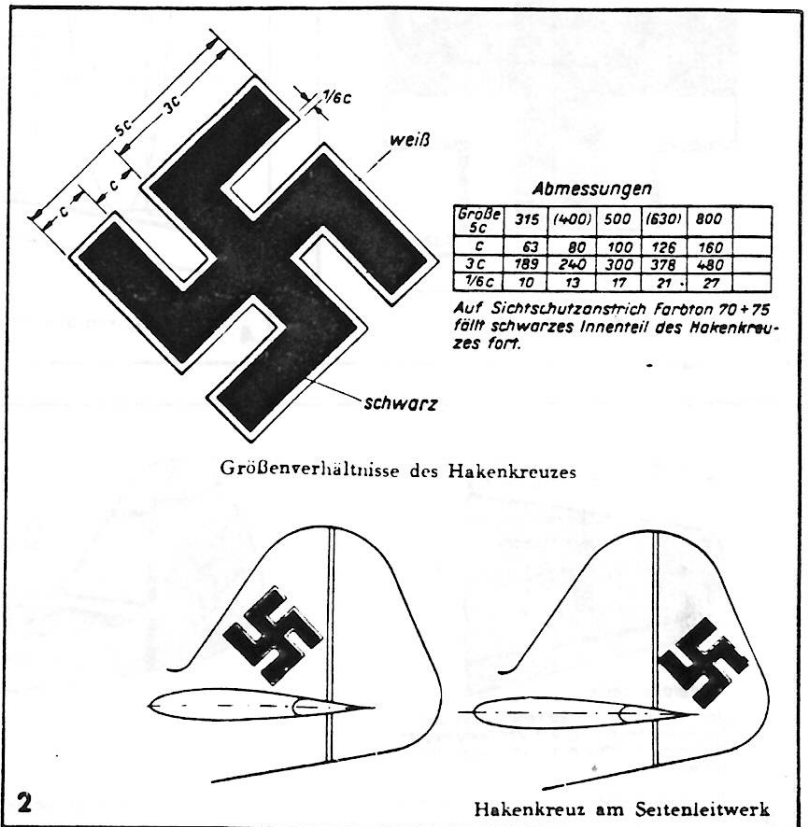
The exact location of the cross as well as the letters, are shown for single engine aircraft (top) and multi engine aircraft (bottom). Direction of cross is in flight direction. The grey shades show letter areas.

**Block 5 left: Wing upper surfaces.** Center of cross is located 2 meters from wing tip.

**Block 5 right: Fuselage locations.** Cross and letter location is clearly shown in drawing. Note that no exact position is given for the swastika.



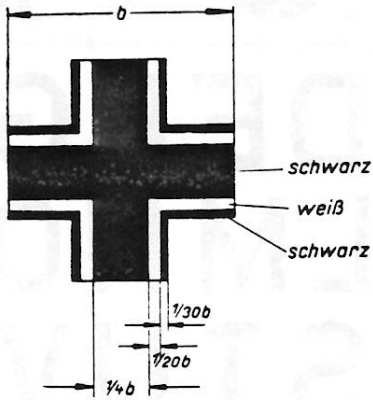
Blockschrift für Flugzeuge



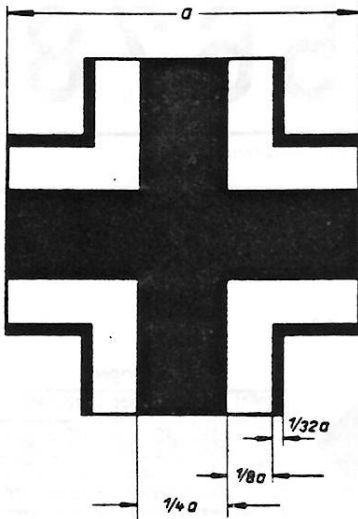


Bemaßung des Balkenkreuzes

Balkenkreuz auf Flügeloberseite

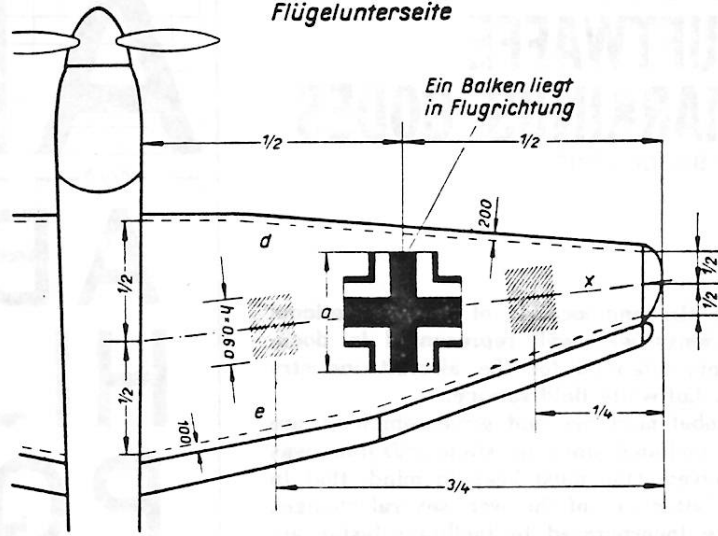


Balkenkreuz auf Flügelunterseite und Rumpf

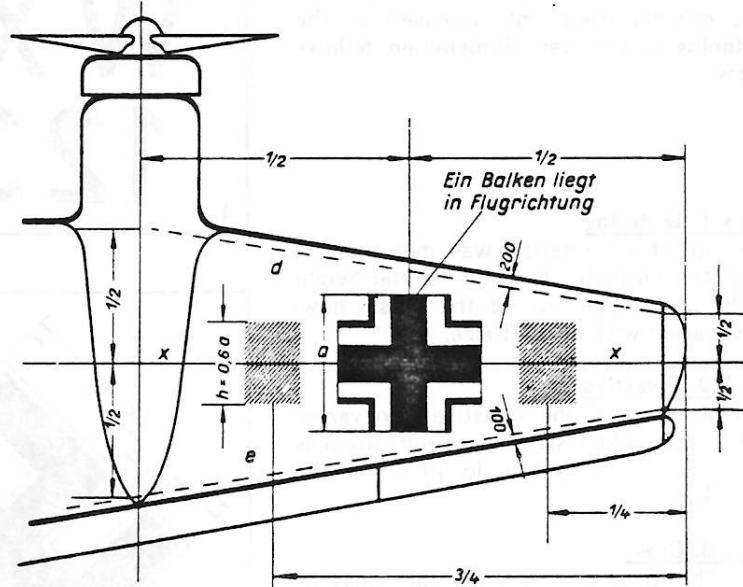


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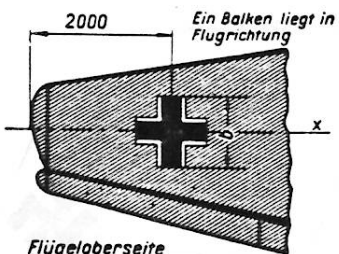
Flügelunterseite



Anordnung von Schrift und Balkenkreuz bei einmotorigen Flugzeugen



4 Anordnung von Schrift und Balkenkreuz bei mehrmotorigen Flugzeugen

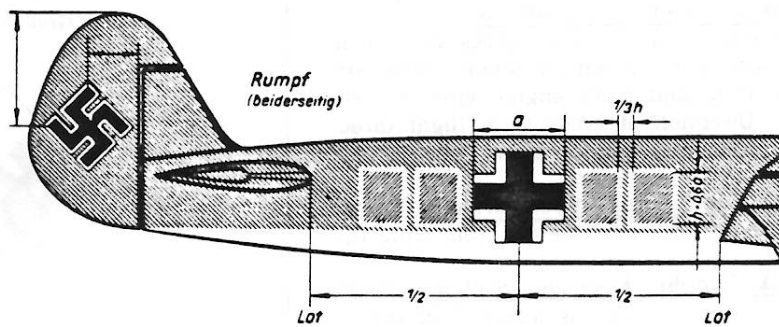


Flügeloberseite

Der Mittelpunkt des Balkenkreuzes auf Flügeloberseite liegt auf der festgelegten Mittellinie X 2000mm vom Flügelende entfernt.

5 Flächenoberseite bei Frontflugzeugen

5



Rumpf beiderseits an Kriegs- und Frontflugzeugen



## BOTTLE FORM PROP BLADES: VARIATIONS ON A THEME

Mark Fineman

Although I've been addicted to model airplanes for a long time now, only within the last few years have I tried the pleasures and pitfalls of indoor flying. Frankly, I don't have the dexterity to handle all those little pieces of 1/32 and 1/64 sheet, so in my customary dumb logic I took a peanut Pres Bruning plan for the XP-47H and blew it up to about 21" span but kept the wood sizes as per the original. True, the distance between fuselage formers was mighty great, but everything worked out O.K. in the end. I made a good-looking model that weighed in at 25 g. without rubber or ballast. The big problem, though, was the prop (I'll tell you about the model itself some other time).

I knew it would need a large, high pitch prop for indoors and finally settled on a 9.5" diameter prop with about a 1.9 P/D ratio. I've made indoor props before by the time-honored method of binding balsa or 1/64 plywood blades canted at an angle onto a cylinder (a coffee can or the like) and then baking over a low temperature to set the curvature of the blades. The problem is, however, that baked blades have the distressing tendency to "unbake" and flatten out with time.

Therefore I was intrigued to read Fernando Ramos's description of efforts to cut the blades directly from plastic cylinders, such as yogurt cartons or plastic drink cups. It really works. This past summer I saw several planes with yogurt cup blades crafted by Tony Peters of New York. His approach is simplicity itself: he just traced the blade outline onto the carton, being sure to maintain the proper tilt. Then the cut blades were glued to a simple prop spar or even hot stuffed directly into a balsa spinner. Tony just pokes the blades into the spinner at the correct angle and fixes them with hot stuff.

This really got my gears grinding for the XP-47H. The trouble is that for a relatively large prop diameter, it is virtually impossible to find a plastic container sufficiently large in diameter. If it is big enough, then it is also too thick and heavy. My solution was embarrassingly simple. I took a square of SIG vacuum forming plastic, perhaps 6 inches on a side, and taped it to a can of the correct diameter. Although the plastic was .008 thickness, I could have probably gotten away with the thinnest .005. I just taped the top and bottom with several thicknesses of masking tape and then popped it into the oven, preheated to the lowest

possible temperature (on our electric oven this is called "warm"). After only two or three minutes the plastic conformed to the curvature of the can and could be removed for cooling. INSTANT CURVED PLASTIC!! Then all I had to do was trace the blade pattern at the correct slant and I had a pair of big, beautiful propellor blades. These were mounted on a 1/8" dia. dowel spar. I used the data from the Wm. McCombs books to establish the correct P/D ratio. It looks just fine.

Of course I haven't flown it yet. I just made it last night, but it certainly looks right. Out of curiosity I weighed my prop against a stock plastic 9" job. The commercial prop came in at about 7 g., while mine weighed in at a more modest 4 g. Not bad when you consider that my prop is a half inch longer and has much more area than its store-bought counterpart.

I have also tried vacuum-forming commercial plastic propellers. It works reasonably well and I am contemplating using this clear plastic prop to power a scale jet plane, one with a radome that could act as a spinner, something like the F-86D. My preliminary experiments suggest that a clear plastic propellor is almost invisible in flight, Neat, huh?

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### *The Warplanes of the Third Reich*

### GOTHA GO 147

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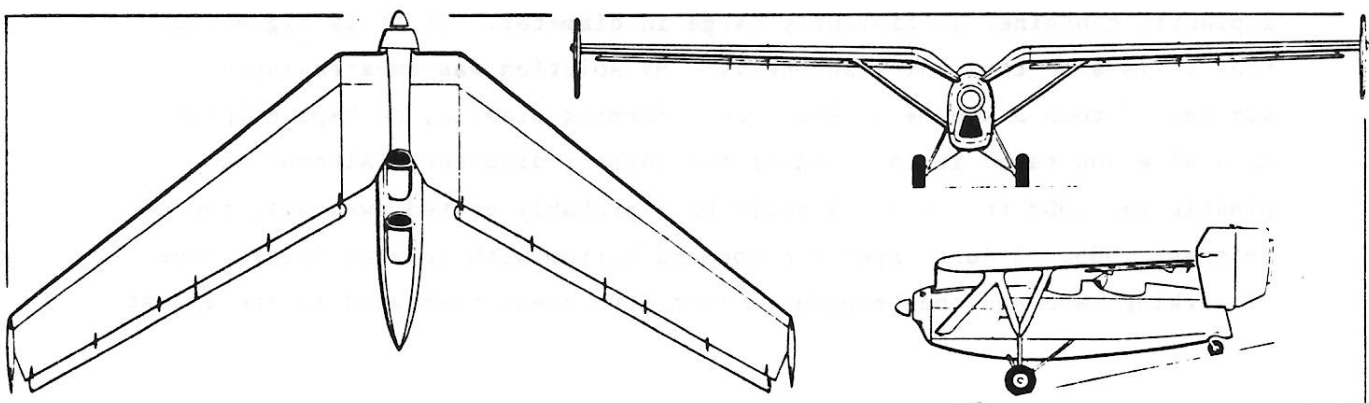
In the mid 'thirties, the Gothaer Waggonfabrik began to investigate the possibilities of tailless aircraft to the designs of a Dr. Kupper and of generally similar concept to the Pterodactyl series pioneered in Britain by Prof. G. T. R. Hill. The principal aim of the programme was to evolve a two-seat fighter with an exceptional field of fire for a gunner mounted in the tail of the fuselage nacelle. To examine the problems of stability and control at low speeds, the Gothaer Waggonfabrik began construction in 1935 of a small tailless monoplane, the Go 147a, powered by a 140 h.p. Siemens Sh 14A radial air-cooled engine. Tested in 1936, the Go 147a had a wing of semi-gull form, the outboard panels of which were swept at an angle of 38 degrees on the leading edges and carried endplate fins and rudders. The fuselage, which had an overall length of 20 ft. 7 1/4 in., accommodated two crew members in tandem aft of the wing centre section.

Although a number of stability problems were encountered during the testing of the Go 147a, it was believed that the basic concept possessed sufficient promise to warrant the construction of a second prototype, the Go 147b, which was considered both as an aerodynamic test-bed for a projected twin-engined fighter with fore and aft power plants, and as a potential short-range air observation post and gunnery trainer. The Go 147b embodied considerable redesign, and was powered by a 240 h.p. Argus As 10 air-cooled inline engine. The wing was a wooden two-spar

structure braced to the welded steel-tube fuselage by aerofoil-section splayed N-struts, almost the entire trailing edge being occupied by slotted 'flaperons', and the undercarriage was fixed. It was proposed that for air observation post or gunnery training tasks armament would comprise a single fixed forward-firing 7.9-mm. MG 17 machine gun and an MG 15 of similar calibre on a flexible mounting in the rear cockpit. Trials with the Go 147b (D-IQVI) were protracted but flight characteristics left much to be desired and, as the RLM favoured more conventional designs, further development was abandoned in 1938.

#### Go 147b Specification

**Type:** Two-seat Light Air Observation Post. **Power Plant:** One Argus As 10 eight-cylinder air-cooled inverted-vee engine rated at 240 h.p. for take-off. **Armament:** (Proposed) One fixed forward-firing 7.9-mm. MG 17 machine gun and one 7.9-mm. MG 15 machine gun on flexible mounting in rear cockpit. **Performance:** Maximum speed, 137 m.p.h. at sea level; maximum continuous cruising speed, 121 m.p.h. at 6,560 ft.; climb to 3,280 ft., 4.8 min.; service ceiling, 18,045 ft. **Weights:** Empty, 2,083 lb.; loaded, 2,524 lb. **Dimensions:** Span, 40 ft. 1 1/2 in.; length, 19 ft. 2 1/2 in.; height, 9 ft. 6 in.; wing area, 208.819 sq. ft.



# Bishop, of Canada!

By Orville H. Kneen

FROM M.A.N.,

JUNE 1931

**A** GERMAN airdrome is awaking. It is nearly dawn of June 2, 1917. Seven machines are warming up, mechanics hustle about, German pilots are preparing to go forth and hunt Allied flyers.

Suddenly out of the gray sky a British plane roars furiously down on the 'drome, raining machine-gun bullets. One man falls—his comrades drag him back. The avenging plane zooms up, circles, firing steadily. Machine guns on the field open fire on the plane. Bullets spat-spat through the taut wings, but the lone attacker turns and dodges in the fiery hail.

Now a German plane roars down the runway and takes the air. The lone flyer dives on the newcomer just as it rises, hailing it with hot lead until it sideslips and crashes. Another takes the runway. The British attacker drives it crashing into a grove of trees.

Two more machines take off in opposite directions. The attacker climbs, with a German close behind him, for a thousand yards. The German has now caught up. The British pilot turns, opens fire, makes two whirling circuits, and with a short burst of fire sends his third German plane crashing onto the field.

The fourth enemy approaches. The Briton's ammunition is getting low, but he goes into battle. The fight is short and savage, the invader emptying his entire drum—his last—at the German. Now he is at the mercy of the German, who is still unhurt. Anxiously he circles, seeking a way out—and then the German turns and flies away.

**T**HE Briton heads for home, climbing high and turning west. To his sudden horror, he finds himself directly under four enemy scouts—and completely out of ammunition. If they see him there will be one last crash—his own.

He flies directly under the scouts, his only chance to escape being seen. He goes directly south for a mile. Then he suddenly slips away, apparently unseen! Once safely on his way home, he began to feel sick. He had taken off at three o'clock without breakfasting. And he had had a lot of excitement for an empty stomach.

While his comrades still slept, Bishop—for it was he who had made this astounding one-man raid against all advice—arrived over his home airdrome, firing his signal lights excitedly. When he had crawled from his machine, mechanics found it riddled with bullets, but not one had come within two feet of the lucky pilot!

That was a day's work for most airmen. Bishop, however, was actually disappointed that his score was only three. He had set out to get four!

That was only one of scores of sensational exploits of William Avery Bishop, von Richthofen, Germany's premier ace, had a score of eighty Allied planes which included some driven down but not destroyed. Had these been included in Bishop's victories, he would have had well over a hundred! All British victories, to be credited, had to be verified by observers on the ground. Bishop's final total was seventy-two.

Like the famous German ace of aces, Bishop was a cavalry officer when the war began—a subaltern in the Miasauga Horse. As he plodded along in the English mud with his horses, he began envying the swift, smooth and mudless flight of war planes. He applied for transfer to the air force.

Also like von Richthofen, he flew at first as an observer, almost entirely in formation. However, as pilot, he fought almost entirely alone, at least three out of four of his combats being "on his own," quite unlike the German ace. Bishop mostly attacked fast scouts, and frequently crashed into formations of the enemy, by dash and speed sending down one or more. In this manner he attacked as many as nine at once.

**I**N TWO months after reaching France, in early 1917, he had won the Military Cross, the Distinguished Service Order and the Victoria Cross. The latter came to him for his airdrome exploit, which was confirmed by German airmen later captured. Later he added another bar to his D.S.O., and also won the Distinguished Flying Cross.

His remarkable eyes enabled him to pick up an enemy aircraft at a great distance. A master of machine gunnery, he was not only one of the greatest of aerial sharpshooters, but was able to repair his gun quickly when it jammed by pulling to one side. Guns frequently jammed, and life and safety depended on rapid fixing or getting away.

Skilled in sky strategy, he fought for good positions, picking the weak points of his opponents. Usually he fired only at close range, aiming at a vital spot. With all his fights Bishop was never

wounded. The only injury in his whole war career was a damaged knee while he was an observer. At that time his pilot made a bad landing and Bishop was laid up for several months.

Bishop holds numerous records for all air fighters on both sides. On April 30, 1917, he had nine fights in one hour and three-quarters. "This very pleasant fighting day," as he called it, was marked in the afternoon by a battle between Bishop's patrol and four of Baron von Richthofen's fighting circus, which included the famous German ace himself.

"I opened fire on the Baron," reported Bishop in his "Winged Warfare," "and in another half-moment found myself in the midst of what seemed to be a stampede of bloodthirsty animals. Everywhere I turned smoking bullets were jumping at me, and although I got in two or three good bursts at the Baron's 'red devil,' I was rather bewildered for two or three minutes.

"Around we went in a cyclonic circle. I was glad the Germans were scarlet and we were silver. It was a lightning fight and I have never been in anything just like it. During one minute you would have to concentrate all your mind and muscle in doing a quick turn to avoid a collision. Once my gun jammed, and while maneuvering to the utmost of my ability to escape the direct fire of the ravenous Germans, I had to 'fuss' with the weapon until I got it right again. I had just got it right again when von Richthofen flashed by me and I let him have a short burst."

Four more machines suddenly dove in. Both sides pulled out to see whether they were friends or enemies. They were British naval triplanes, and the Germans vanished in a swift dive. Honors were even. Bishop's machine was riddled, one burst having passed within an inch of him!

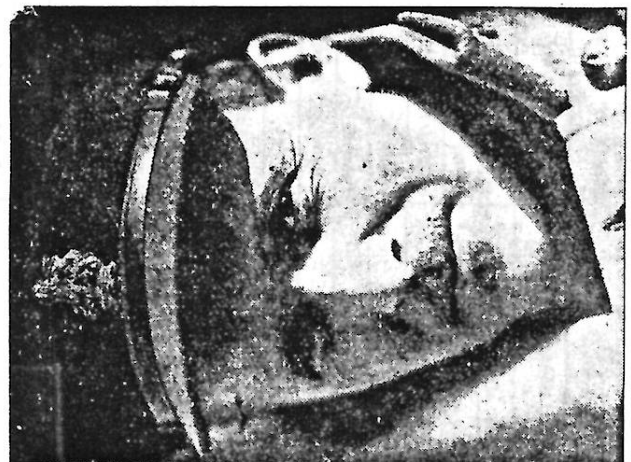
He had forty-seven planes to his credit when he went home to organize and train fighters of the air, but in twelve more flying days in May, 1918, he had added twenty-five more to his score. On his last day before returning to his training work, he made the record for a single flight of less than two hours. Behind Ypres, on this flight, he saw three fast Pfalz scouts just after crossing the lines. He dived for the nearest. A short close burst and the enemy fell in a flaming spin.

The other two dived at him, then two more roared out of a cloud above. Bishop dived, and two of the enemy collided and fell in flames. The remaining two climbed. Bishop gave chase, opened fire at two hundred yards, and sent one into a spin that crashed it. The other escaped.

Bishop kept on cruising, for this was his last day at the front. Near Neuve Eglise he attacked a two-seater and sent it down in flames. Following it down to watch it crash, he spotted a column of German troops and scattered them with his gun.

"Then," he reported later, "I climbed into the clouds and went home."

He had set out with a score of sixty-seven, and returned to lunch with seventy-two! In addition to destroying all these enemy planes, he was victor in at least a hundred other combats high in the air.



The Greatest Living Ace

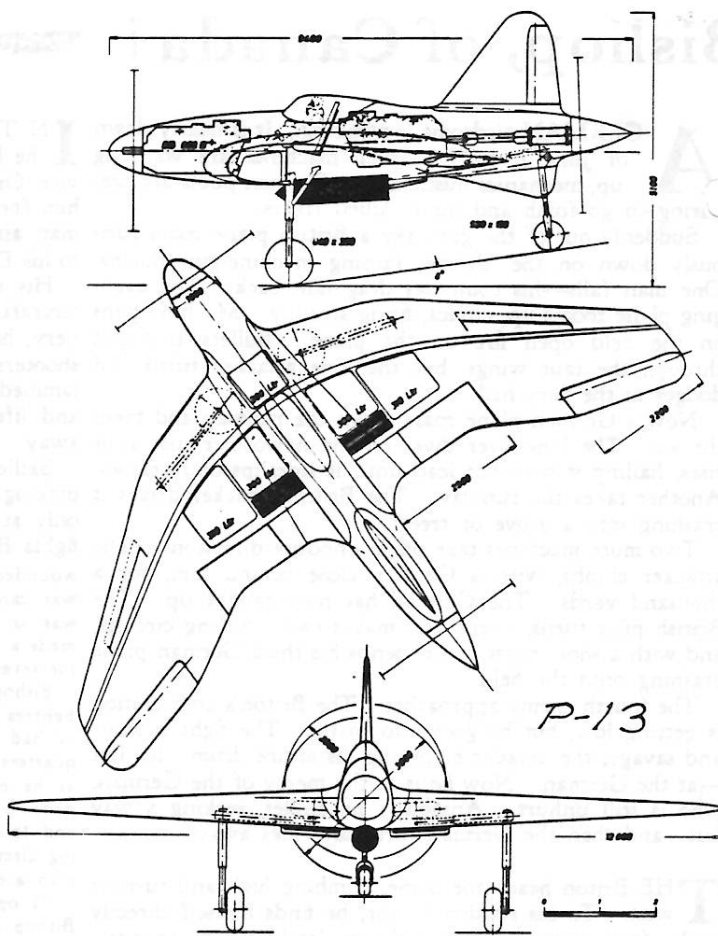


CONTEST RESULTS FOR HAND LAUNCH GLIDER

| NAME           | FLIGHT TIMES (SECONDS) |    |    |    |    |    | PLACE |       |
|----------------|------------------------|----|----|----|----|----|-------|-------|
|                | 1                      | 2  | 3  | 4  | 5  | 6  |       | TOTAL |
| GLEN SIMPERS   | 34                     | 28 | 31 | 25 | 32 | 30 | 69    | 1     |
| BOB CLEMENS    | 25                     | 23 | 26 | 20 | 12 | 5  | 54    | 3     |
| RANDY KLEINERT | 32                     | 27 | 29 | 33 | 30 |    | 66    | 2     |
| BILL CLARK     | 24                     | 23 |    |    |    |    | 47    | 4     |

CONTEST RESULTS FOR MANHATTEN

| NAME         | AIRCRAFT     | FLIGHT TIMES (SEC) |     |     |     |     | PLACE |   |
|--------------|--------------|--------------------|-----|-----|-----|-----|-------|---|
|              |              | 1                  | 2   | 3   | 4   | 5   |       |   |
| GLEN SIMPERS | -            | 41                 | 50  |     |     |     | 50    | 4 |
| DON SRULL    | MANHATTEN    | 108                |     |     |     |     | 108   | 3 |
| PAT DAILY    | PINK LADY    | 122                | 115 | 113 | 127 | 115 | 127   | 2 |
| ROLF GREGORY | ON-THE-ROCKS | 127                | 147 |     |     |     | 147   | 1 |



CONTEST RESULTS FOR PEANUT SCALE

| NAME            | AIRCRAFT        | STATIC RANK | FLIGHT TIMES (SEC) |    |    | FLY RANK | TOTAL RANK | PLACE |
|-----------------|-----------------|-------------|--------------------|----|----|----------|------------|-------|
|                 |                 |             | 1                  | 2  | 3  |          |            |       |
| PAUL SPREIREGEN | LACY M10        | 12          | 60                 | 61 | 61 | 3        | 15         | 5     |
| PAUL SPREIREGEN | FIKE            | 17          | 41                 | 58 | 57 | 5        | 22         | -     |
| PAUL SPREIREGEN | NESMITH COUGAR  | 15          | 29                 | 44 | 43 | 8        | 23         | -     |
| BOB CLEMENS     | CURRIE WOT      | 2           | 31                 | 52 | -  | 6        | 8          | -     |
| BOB CLEMENS     | FOUND           | 3           | 60                 | 81 | 90 | 1        | 4          | 1     |
| DAN DRISCOLL    | LOENINK KITTEN  | 11          | 19                 | 21 | 24 | 14       | 25         | 9     |
| DAN DRISCOLL    | SE-3            | 13          | 23                 | 24 | 26 | 13       | 26         | 10    |
| DAVE REES       | CONTESTOR       | 4           | 44                 | 59 | 57 | 4        | 8          | 2     |
| BILL MICHELL    | LACY M10        | 10          | 30                 | 46 | 49 | 7        | 17         | 6     |
| JOHN MAJANE     | DRUINE RURULETH | 16          | 22                 | -  | -  | 15       | 31         | 14    |
| BILL BELL       | CUTISS GOSHAWK  | 7           | 17                 | 15 | 16 | 16       | 23         | 8     |
| KEVIN SHARBONDA | JS-4            | 14          | 16                 | 26 | 22 | 13       | 27         | 11    |
| RANDY KLEINERT  | CONTESTOR       | 5           | 28                 | 41 | 41 | 9        | 14         | -     |
| RANDY KLEINERT  | CUB             | 8           | 30                 | 56 | 67 | 2        | 10         | 3     |
| TOM SCHMITT     | A-E TAURIN      | 1           | 22                 | 32 | 37 | 10       | 11         | 4     |
| STEN MEIERS     | FOKKER E-III    | 6           | 15                 | -  | -  | 15       | 17         | 7     |
| ROLF GREGORY    | WHITTMAN BUSTER | 9           | 29                 | -  | -  | 12       | 31         | 13    |
| HAROLD HOWARD   | NESMITH COUGAR  | 18          | 18                 | 35 | 35 | 11       | 29         | 12    |

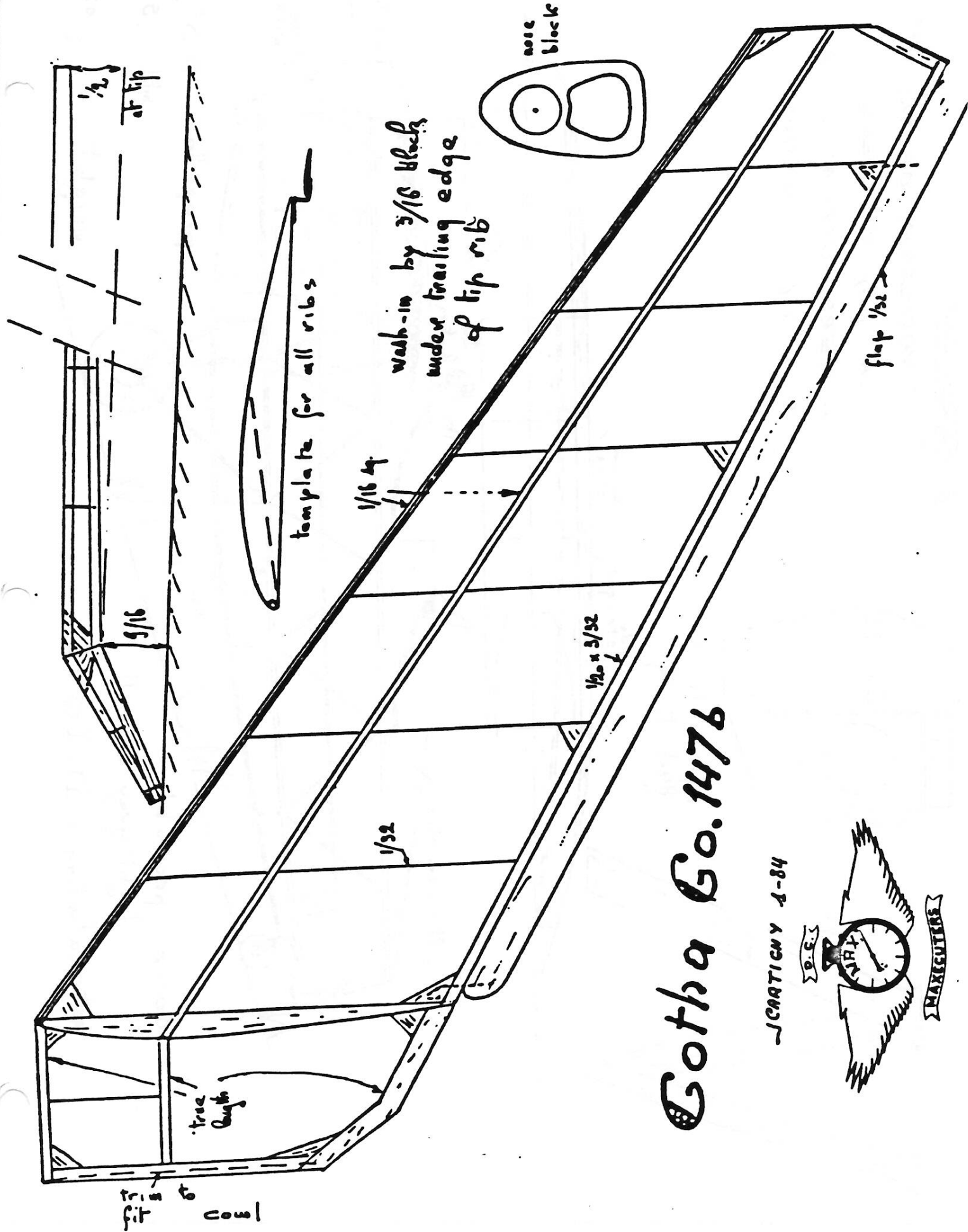
CONTEST RESULTS FOR BOSTONIAN

| NAME            | AIRCRAFT        | FLIGHT TIMES (SEC) |    |    |    |    | PLACE |   |
|-----------------|-----------------|--------------------|----|----|----|----|-------|---|
|                 |                 | 1                  | 2  | 3  | 4  | 5  |       |   |
| PAUL SPREIREGEN | FOUND BOSTONIAN | 51                 | 49 | 48 |    |    | 51    | 3 |
| BOB CLEMENS     | BOSTON TEA      | 65                 | 82 |    |    |    | 82    | 1 |
| TOM SCHMITT     | HARVARD SQUARE  | 53                 | 62 | 59 | 61 | 60 | 62    | 2 |
| GEORGE MUTIMER  | FLY-BY-NIGHT    | 24                 | 30 | 31 |    |    | 31    | 4 |

CONTEST RESULTS FOR A6 CAL

| NAME            | AIRCRAFT         | FLIGHT TIMES (SECONDS) |     |     | TOTAL | PLACE |
|-----------------|------------------|------------------------|-----|-----|-------|-------|
|                 |                  | 1                      | 2   | 3   |       |       |
| PAUL SPREIREGEN | LACY             | 87                     | 89  | 93  | 269   | 2     |
| DON SRULL       | HUSTLER 500      | 116                    | 126 | 142 | 384   | 1     |
| TOM SCHMITT     | WATERMAN AIRBULL | 33                     | 37  |     | 70    | 4     |
| HAROLD HOWARD   | P-40             | 63                     | 70  | 75  | 208   | 3     |





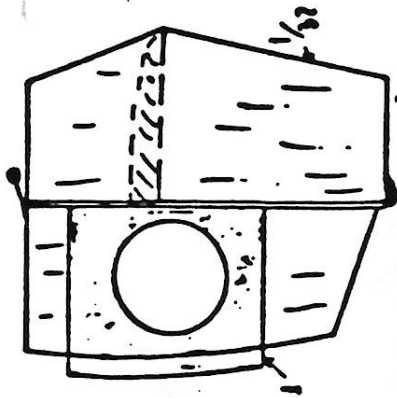
Gotha Co. 1476

JCARTRIGNY 4-84

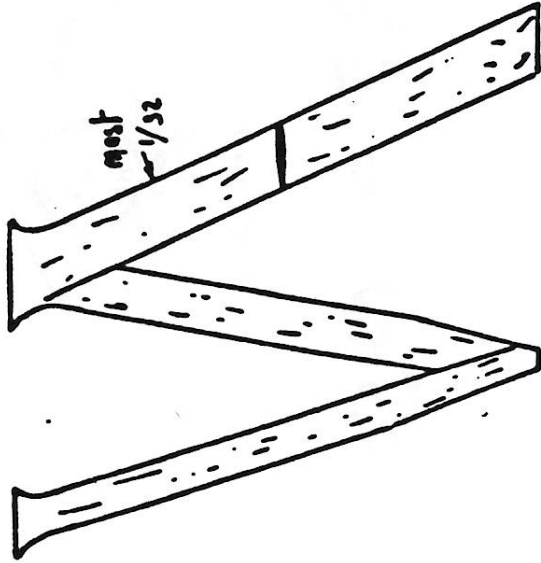


REFERENCES:

- 1) "THE WARPLANES OF THE 3<sup>rd</sup> REICH", by W. GREEN.
- 2 "HITLERS LUFTWAFFE", by T. WOOD & W. GUNSTON



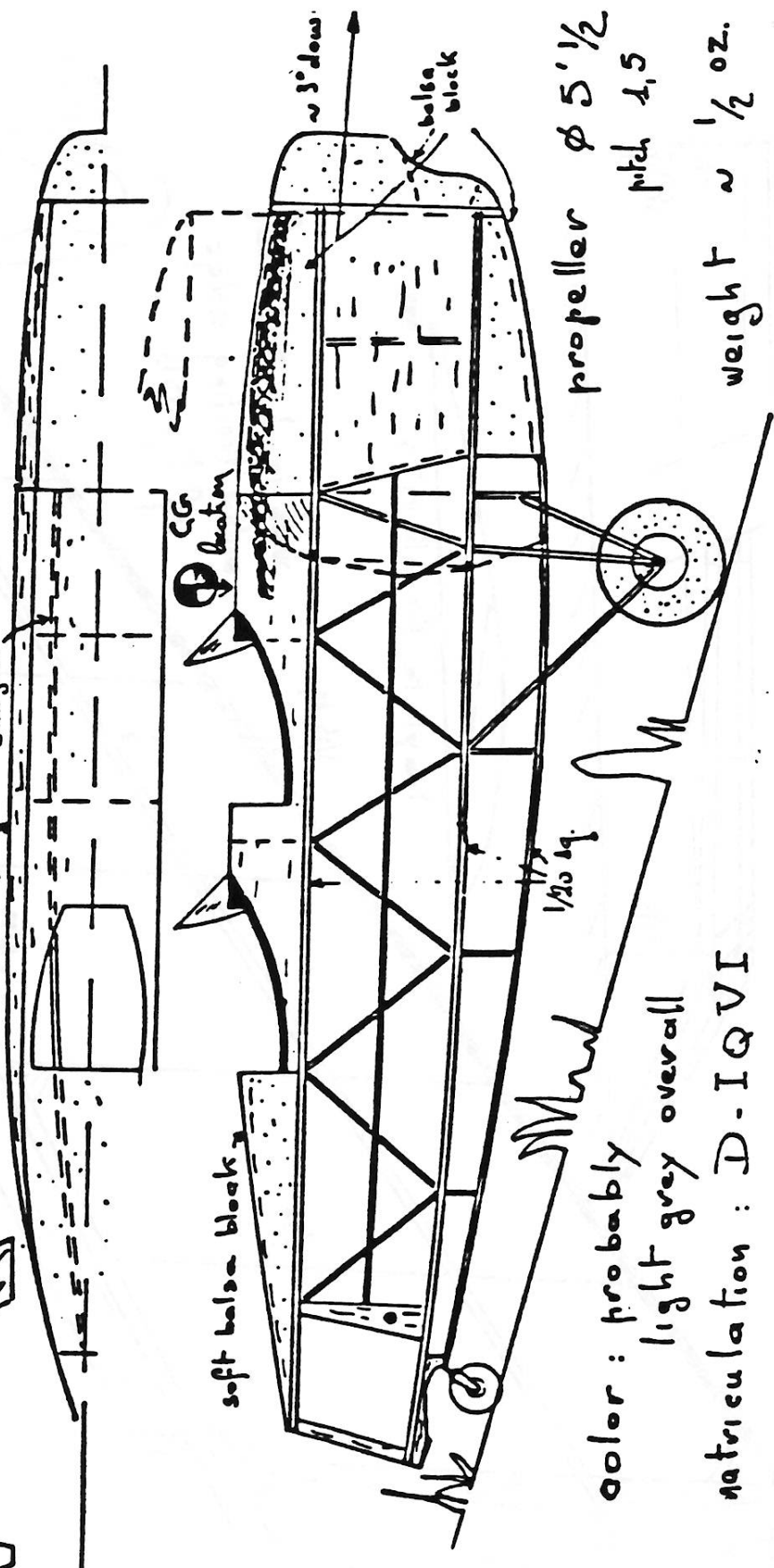
left rudder 30° offset to left



spat 1/32

side stringer

bottom stringer



CG location

soft balsa blocks

balsa block

1 1/2 in

~ 30° down

Mud

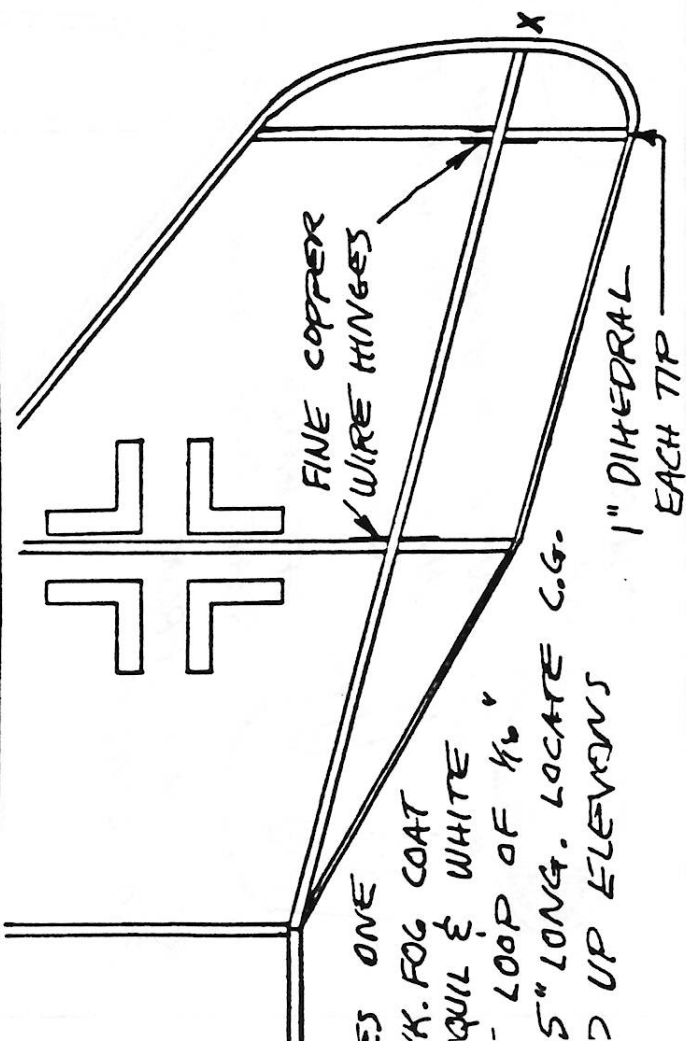
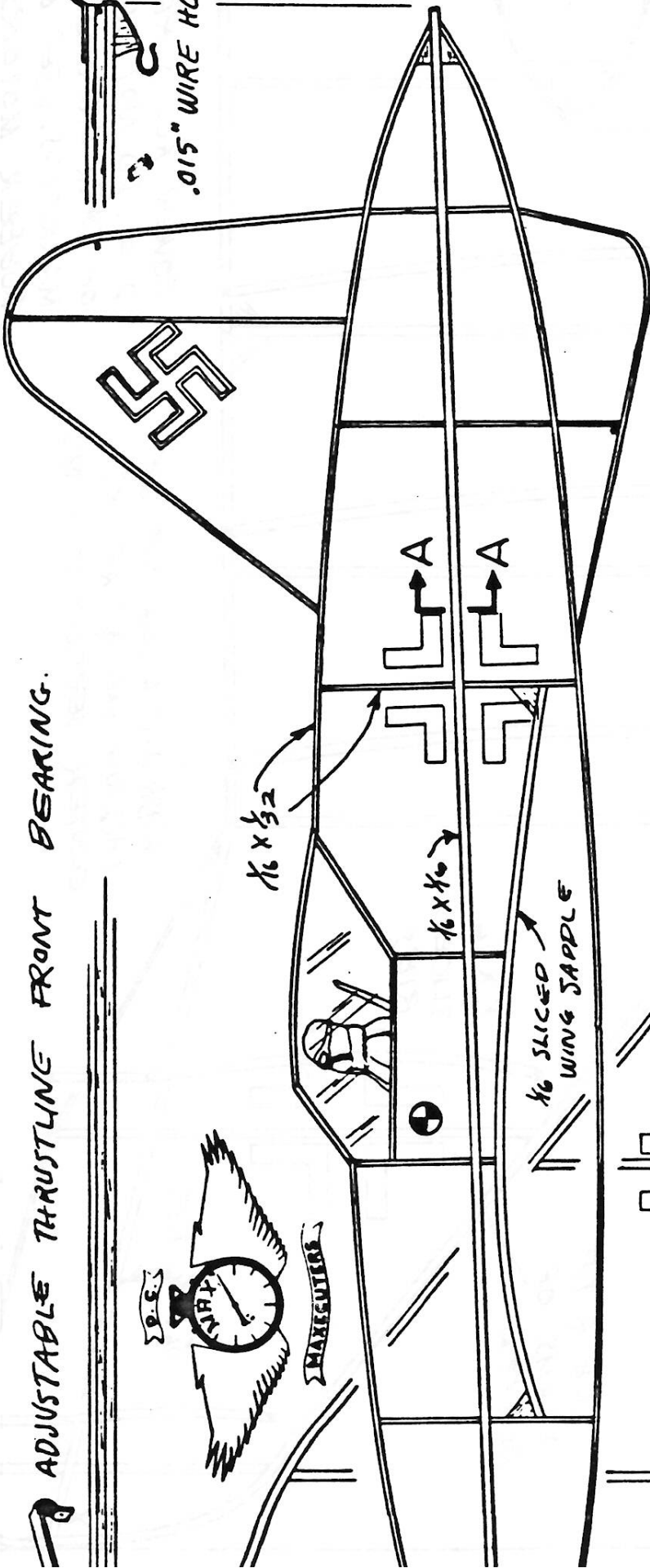
propeller  $\phi$  5' 1/2  
pitch 1.5  
weight ~ 1/2 oz.

color: probably light grey overall  
matriculation: D-IQVI

ALSO HUE Banded round toward ends.  
 .015" WIRE SHAFT WITH REVERSE "S" HOOK.

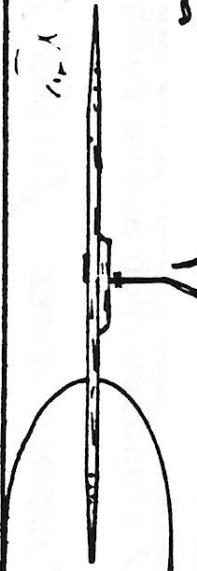
ADJUSTABLE THRUSTLINE FRONT BEARING.

ALUMINUM REAR  
 PROP BEARING



ALEXANDER LIPPISCH  
**PROJECT P-13**  
 1942 proposed high speed bomber  
 16" PROFILE MODEL Don Small '42

1/2" x 3/8" BA  
.015"

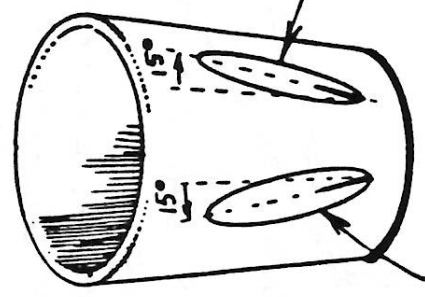


30° PITCH  
AT THIS  
RADIUS

TRUE  
BLADE  
SHAPE

CUT ALL 4 BLADES FROM CUP,  
SAND AND WHITE GLUE TO  
HUBS.

FOAM COFFEE  
CUP



LEFT HAND  
REAR PROP BLADE

RIGHT HAND, FRONT  
PROP BLADE.

L.E. & TIP  
2 LAMS. OF  
1/16 x 1/32

1/16 x 1/16  
SLICED  
RIBS

1/16 x 1/16 T.O.E.

1/16 x 1/32

COVER ALL SURFACES  
SIDE. DO NOT SHRINK  
OF DARK GREEN FLOOR  
MARKINGS. USE ONE  
RUBBER MOTORS, IS  
AS SHOWN & BEND  
1/4" TO 1/2".

WASH OUT EACH TIP BY  
RAISING T.E. 1/4" AT "X".  
CENTER SECTION IS FLAT.



CONTEST RESULTS FOR F.A.C. SCALE

| NAME            | AIRCRAFT         | STATIC |    |    |    | FLIGHT (SECONDS) |    |    |    | TOTAL PTS | PLACE |    |
|-----------------|------------------|--------|----|----|----|------------------|----|----|----|-----------|-------|----|
|                 |                  | 1      | 2  | 3  | 4  | 1                | 2  | 3  | 4  |           |       |    |
| PAUL SPREIREGEN | FARCHILD 24      | 14     | 10 | 6  | 0  | 30               | 28 | 39 | 36 | 39        | 69    | 11 |
| PAUL SPREIREGEN | PALADS PODDER    | 12     | 10 | 6  | 0  | 28               | 16 | -  | -  | 16        | 44    | -  |
| DUDLEY ROUSEL   | HEINDEL 113      | 17     | 18 | 9  | 10 | 54               | 49 | 57 | 57 | 57        | 111   | 2  |
| DUDLEY ROUSEL   | PV-7 GRAB KITTEN | 22     | 16 | 10 | 15 | 63               | 46 | 25 | 35 | 46        | 109   | -  |
| BOB CLEMENS     | LUTON MINOR      | 26     | 19 | 12 | 3  | 60               | 39 | -  | -  | 39        | 99    | 5  |
| BOB CLEMENS     | CLOUD BUSTER     | 21     | 18 | 11 | 0  | 50               | 27 | -  | -  | 27        | 77    | -  |
| DAVE REES       | ZIPPY SPORT      | 24     | 18 | 10 | 0  | 52               | 45 | 40 | 37 | 45        | 97    | -  |
| DAVE REES       | BARLINK NB-3     | 27     | 19 | 10 | 10 | 65               | 33 | 44 | 49 | 44        | 109   | 3  |
| BILL MITCHELL   | GADFLY           | 22     | 16 | 6  | 10 | 54               | 27 | 64 | -  | 62        | 116   | 1  |
| BILL MITCHELL   | ZIPPY SPORT      | 22     | 18 | 10 | 0  | 50               | 27 | 37 | 44 | 44        | 94    | 6  |
| BILL BELL       | SPARROW CABIN    | 16     | 13 | 7  | 0  | 36               | 17 | 19 | 24 | 24        | 60    | -  |
| BILL BELL       | TAYLOR CUB       | 16     | 14 | 6  | 5  | 41               | 16 | 28 | 36 | 36        | 77    | 9  |
| KEVIN SHARBONDA | IS-4             | 20     | 16 | 9  | 3  | 48               | 20 | -  | -  | 20        | 68    | -  |
| RANDY KLEINERT  | FARCHILD 22      | 21     | 16 | 10 | 15 | 65               | 18 | 23 | 26 | 26        | 91    | 7  |
| RANDY KLEINERT  | SE-5             | 21     | 16 | 10 | 15 | 65               | 18 | 23 | 26 | 26        | 91    | 7  |
| BERT PHILLIPS   | MR MULLIGAN      | 20     | 16 | 7  | 0  | 43               | 15 | 20 | 23 | 23        | 66    | 12 |
| ALLAN SCHWANZLE | HELLCAT          | 26     | 19 | 11 | 10 | 66               | 42 | 39 | -  | 42        | 108   | 4  |
| BILL BELL       | FOKKER D-7       | 19     | 16 | 7  | 15 | 57               | 16 | 21 | 22 | 22        | 79    | 8  |
| ROLF GREGORY    | SCHUCKERT        | 18     | 17 | 6  | 5  | 46               | 28 | -  | -  | 28        | 74    | 10 |

CONTEST RESULTS FOR W/W-I

| NAME           | AIRCRAFT         | ROUND ELIMINATED |   |   |   |   |   |   |   |   |    | PLACE |   |  |   |
|----------------|------------------|------------------|---|---|---|---|---|---|---|---|----|-------|---|--|---|
|                |                  | 1                | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |       |   |  |   |
| DUDLEY ROUSEL  | PV-7 GRAB KITTEN |                  |   |   |   |   |   |   | X |   |    |       |   |  | 2 |
| DAN DRISCOLL   | SE-5             |                  |   |   |   |   |   |   | X |   |    |       |   |  |   |
| DAVE REES      | MARTINBYDE S-1   |                  |   |   |   |   |   |   | X |   |    |       |   |  | 4 |
| BILL BELL      | FOKKER D-7       |                  |   |   |   |   |   |   |   | X |    |       |   |  |   |
| DON SRULL      | PV-7 GRAB KITTEN |                  |   |   |   |   |   |   |   |   |    |       |   |  | 1 |
| RANDY KLEINERT | SE-5             |                  |   |   |   |   |   |   | X |   |    |       |   |  |   |
| STEW MEYERS    | ALBATROSS D-II   |                  |   |   |   |   |   |   | X |   |    |       |   |  |   |
| ROLF GREGORY   | VIEUPORT         |                  |   |   |   |   |   |   |   |   |    |       | X |  | 3 |

CONTEST RESULTS FOR NAVY SCALE

| NAME            | AIRCRAFT          | ROUND ELIMINATED |   |   |   |   |   |   |   |   |    | PLACE |   |  |  |   |
|-----------------|-------------------|------------------|---|---|---|---|---|---|---|---|----|-------|---|--|--|---|
|                 |                   | 1                | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |       |   |  |  |   |
| DUDLEY ROUSEL   | PV-7 GRAB KITTEN  |                  |   |   |   |   |   |   |   |   |    |       |   |  |  | 1 |
| DAN DRISCOLL    | LOEMING KITTEN    |                  |   |   |   |   |   |   | X |   |    |       |   |  |  | 2 |
| CLAUDE ROWELL   | BOEING FAB-4      |                  |   |   |   |   |   |   | X |   |    |       |   |  |  | 3 |
| BILL BELL       | FAU-1 CORSAIR     |                  |   |   |   |   |   |   |   | X |    |       |   |  |  | 4 |
| KEVIN SHARBONDA | BRENKSTER BUFFALO |                  |   |   |   |   |   |   |   | X |    |       |   |  |  |   |
| RANDY KLEINERT  | F6F HELLCAT       |                  |   |   |   |   |   |   |   |   | X  |       |   |  |  |   |
| PAT DAILY       | YOUIGHT JBU-1     |                  |   |   |   |   |   |   |   |   |    | X     |   |  |  |   |
| ALLAN SCHWANZLE | F8F HELLCAT       |                  |   |   |   |   |   |   |   |   |    |       | X |  |  |   |

CONTEST RESULTS FOR GOLDEN AGE

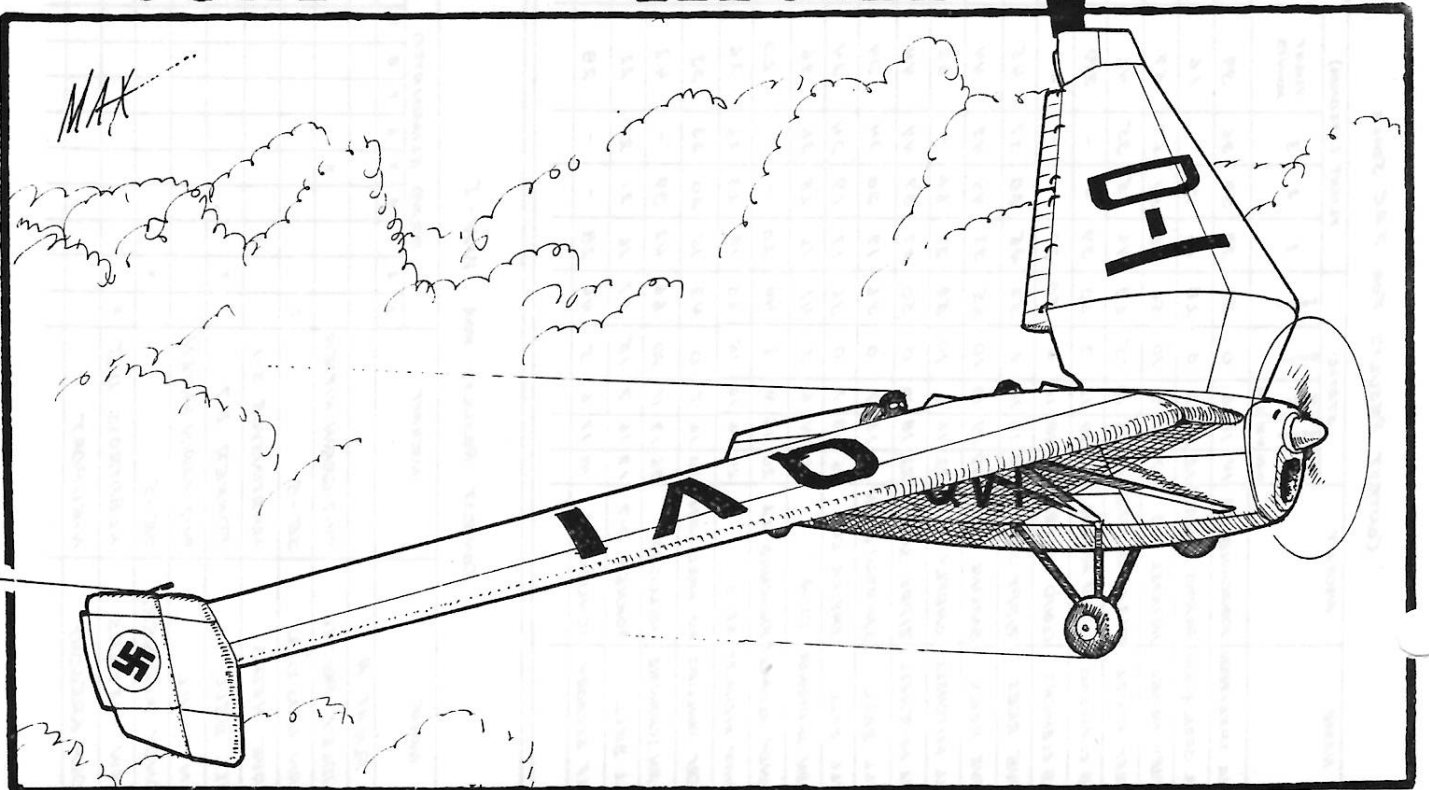
| NAME            | AIRCRAFT              | ROUND ELIMINATED |   |   |   |   |   |   |   |   |    | PLACE |  |   |  |  |   |
|-----------------|-----------------------|------------------|---|---|---|---|---|---|---|---|----|-------|--|---|--|--|---|
|                 |                       | 1                | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |       |  |   |  |  |   |
| PAUL SPREIREGEN | FARCHILD 24           |                  |   |   |   |   |   |   |   |   |    |       |  |   |  |  | 5 |
| BOB CLEMENS     | FARMAN MUKSTIQUE      |                  |   |   |   |   |   |   | X |   |    |       |  |   |  |  | 1 |
| DAVE REES       | BARLINK NB-3          |                  |   |   |   |   |   |   |   |   |    |       |  | X |  |  | 2 |
| BILL MITCHELL   | GADFLY                |                  |   |   |   |   |   |   |   |   |    |       |  |   |  |  |   |
| JOHN MATANE     | REARWIN SPORTSTER     |                  |   |   |   |   |   |   |   |   |    |       |  |   |  |  |   |
| CLAUDE ROWELL   | WILEY POST A          |                  |   |   |   |   |   |   |   |   |    |       |  | X |  |  | 3 |
| RANDY KLEINERT  | FARCHILD 22           |                  |   |   |   |   |   |   |   |   |    |       |  | X |  |  |   |
| BERT PHILLIPS   | MR MULLIGAN           |                  |   |   |   |   |   |   |   |   |    |       |  |   |  |  |   |
| PAT DAILY       | CURTIS CARRIER PIGEON |                  |   |   |   |   |   |   |   |   |    |       |  |   |  |  |   |
| BILL BELL       | TAYLOR CUB            |                  |   |   |   |   |   |   |   |   |    |       |  | X |  |  | 4 |

CONTEST RESULTS FOR PENNY PLANE

| NAME            | AIRCRAFT     | FLIGHT TIMES (SEC) |     |     |     |   | PLACE |
|-----------------|--------------|--------------------|-----|-----|-----|---|-------|
|                 |              | 1                  | 2   | 3   | 4   | 5 |       |
| PAUL SPREIREGEN | CAEZAR BANKS | 236                | 180 | 149 | -   | - | 236   |
| GLEN SIMPERS    | NO NON-GENTS | 243                | 139 | 230 | 231 | - | 243   |
| KEVIN SHARBONDA | -            | 152                | 130 | 121 | -   | - | 152   |
| DON SRULL       | PE-50        | 189                | 259 | -   | -   | - | 259   |
| RANDY KLEINERT  | NO NCNSENSE  | 369                | -   | -   | -   | - | 363   |

**MAY  
JUNE '84**

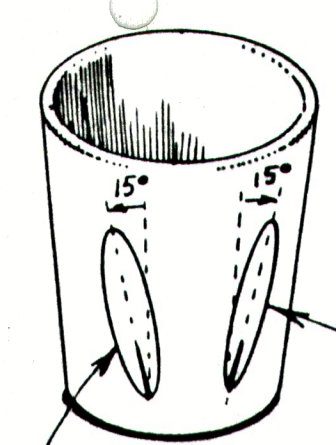
# max-fax



2008 Spur Hill Dr.  
Galtersburg MD 20879

FIRST CLASS



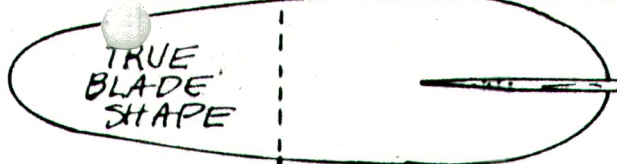


FOAM COFFEE CUP

CUT ALL 4 BLADES FROM CUP, SAND AND WHITE GLUE TO HUBS.

LEFT HAND REAR PROP BLADE

RIGHT HAND, FRONT PROP BLADE.



30° PITCH AT THIS RADIUS

$\frac{1}{16} \times \frac{3}{32}$  BALSA HUB BANNED ROUND TOWARD ENDS. .015" WIRE SHAFT WITH REVERSE "S" HOOK.

ALUMINUM REAR PROP BEARING

ADJUSTABLE THRUSTLINE FRONT BEARING.

.015" WIRE HOOKS

L.E. & TIP 2 LAMS. OF  $\frac{1}{16} \times \frac{1}{32}$

$\frac{1}{16} \times \frac{1}{16}$  SLICED RIBS

$\frac{1}{16} \times \frac{1}{16}$  T.E.

$\frac{1}{16} \times \frac{1}{32}$

WASH OUT EACH TIP BY RAISING T.E.  $\frac{1}{4}$ " AT "X". CENTER SECTION IS FLAT.

COVER ALL SURFACES ONE SIDE. DO NOT SHRINK. FOG COAT OF DARK GREEN FLOQUIL & WHITE MARKINGS. USE ONE LOOP OF  $\frac{1}{16}$ " RUBBER MOTORS, 15" LONG. LOCATE C.G. AS SHOWN & BEND UP ELEVONS  $\frac{1}{4}$ " TO  $\frac{1}{2}$ ".

1" DIHEDRAL EACH TIP

FINE COPPER WIRE HINGES

$\frac{1}{16}$  SLICED WING SADDLE

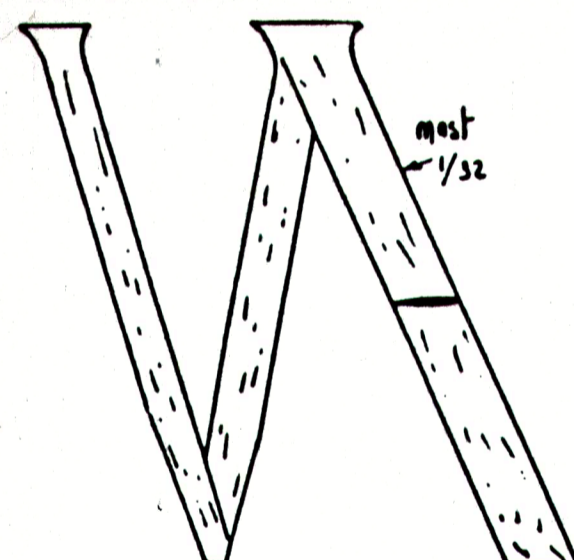
$\frac{1}{16} \times \frac{1}{32}$

$\frac{1}{16} \times \frac{1}{16}$

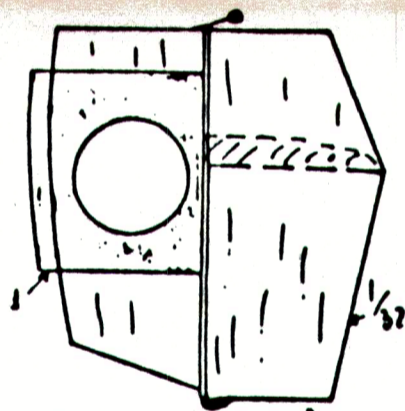
MOTOR STICK SECTION A-A

$\frac{1}{16} \times \frac{1}{8}$  BOTH SIDES  
 $\frac{1}{16} \times \frac{1}{16}$  FUSELAGE CENTERLINE

ALEXANDER LIPPISCH  
**PROJECT P-13**  
1942 proposed high speed bomber  
16" PROFILE MODEL Don Snull '60



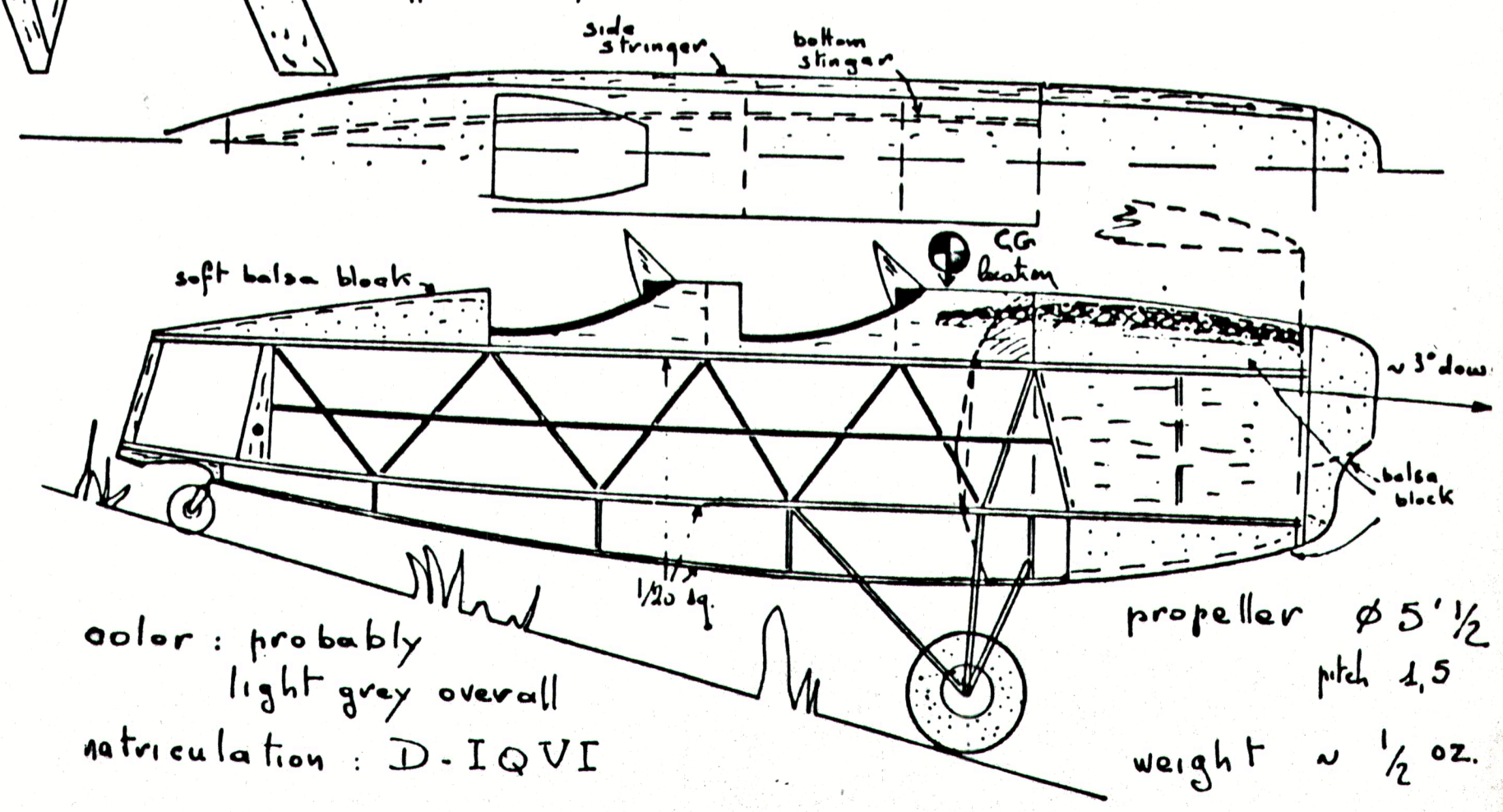
most  $\frac{1}{32}$



left rudder 30° offset to left

REFERENCES:

- 1) "THE WARPLANES OF THE 3<sup>rd</sup> REICH", by W. GREEN.
- 2) "HITLER'S LUFTWAFFE", by T. WOOD & W. GUNSTON



soft balsa blocks

side stringer

bottom stringer

CG location

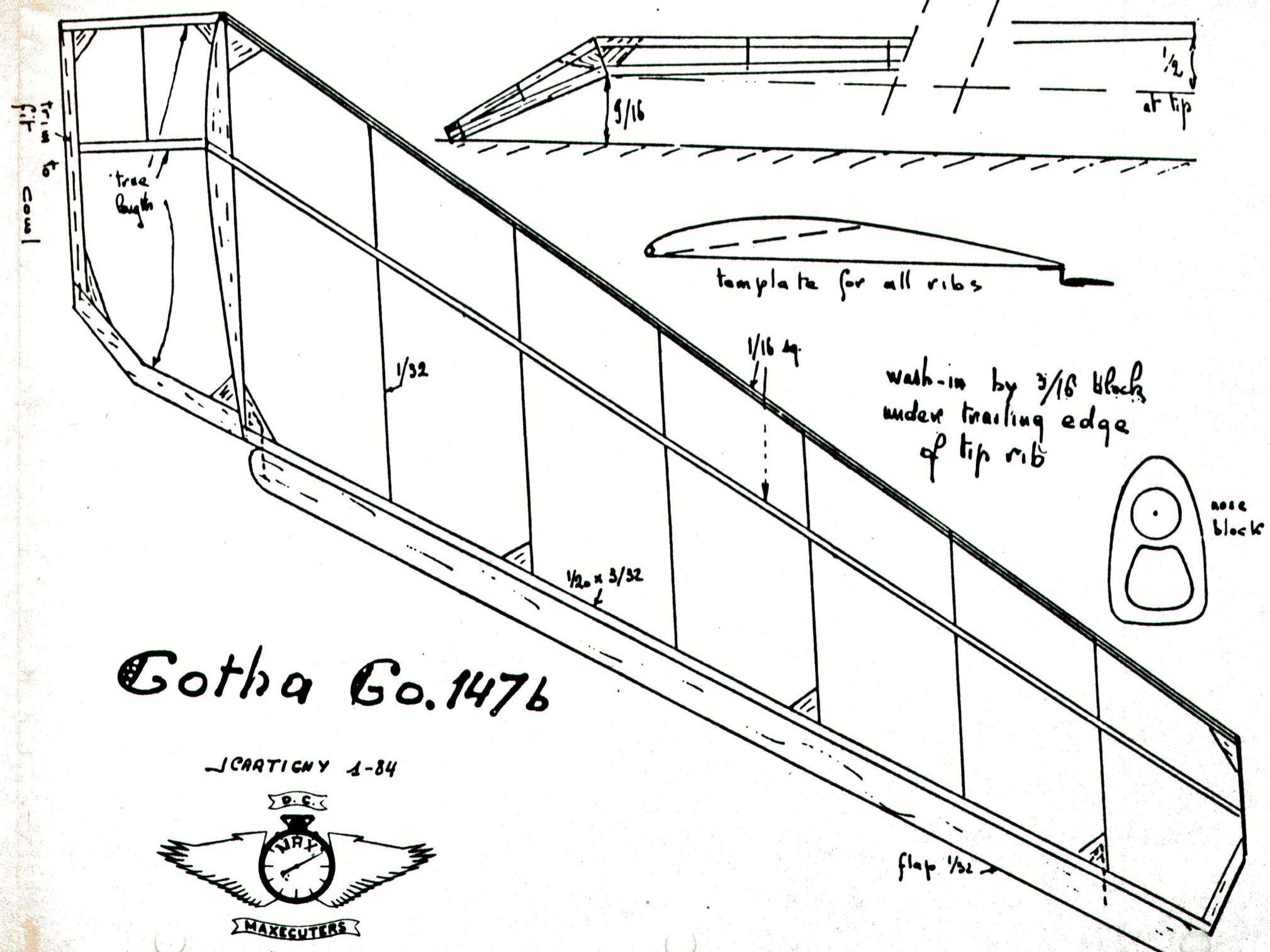
balsa block

$\sim 3^\circ$  down

$\frac{1}{32}$  sq.

color: probably light grey overall  
matriculation: D-IQVI

propeller  $\phi 5 \frac{1}{2}$   
pitch 1.5  
weight  $\sim \frac{1}{2}$  oz.



trim to cover

Gotha Go.147b

J-CARTIGNY 1-84



template for all ribs

wash-in by  $\frac{3}{16}$  block under trailing edge of tip rib

nose block

$\frac{1}{16}$  sq.

$\frac{1}{16} \times \frac{3}{32}$

$\frac{1}{32}$

$\frac{3}{16}$

$\frac{1}{2}$  at tip

flap  $\frac{1}{32}$