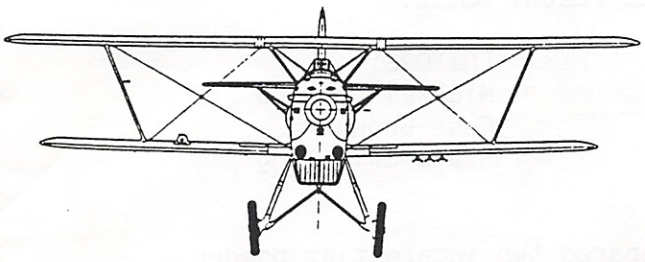
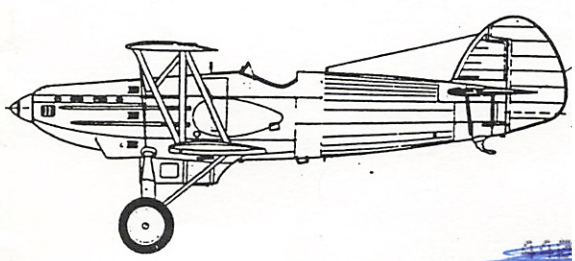
# CROSSWINDS 86



CLEVELAND FREE FLIGHT SOCIETY

Michael C. Zand
5803 East Ash Road
Independence Ohio 44131



CROSSWINDS

THE JOURNAL OF THE CLEVELAND FREE FLIGHT SOCIETY

No. 86

EDITORS:
Michael C. Zand
Russ Brown
Steve Griebling

EDITORIAL COMMENT

New CFFS member, Steve Griebling, has prepared two interesting peanut subjects for Crosswinds. In this issue we feature his plan for the Avia B-534, a full sized replica of which is displayed at the Muzeum Letectivi A Kosmonautiky located in Prague-Kbely, Czech Republic.

This past July, my wife Irene, my son David, and I visited Eastern Europe and spent four days in Prague. Russ Brown, on hearing of our trip, told me of the possibility of locating the Avia B-534 at a museum near the city of Prague. After a little research we located two museums. First the National Technical Museum, located in the city, and the Air Museum known as Muzeum Letectivi A Kosmonautiky, which is northeast of the city--zone 9, also known as Kbely, easily reached by the "metro B line". To arrive get off at the last stop, Ceskomoravska and then take bus 259 or 185. *Beware!* The Kbely facility is closed on Friday, whereas the National Technical Museum is closed on Monday.

Prague is city full of great sights and sounds and if you are an aviation buff, both these museums have a lot to offer. The National Technical Museum's collection includes fourteen airplanes as well as displays of Metallurgy, History of Transport, Time Measuring, Photo-kino and Noise Ecology. At Kbely, in addition to the Avia B-534, you can see about forty airplanes in three hangars and an outdoor display of jet fighters.

Prague has an infinite amount of wonderful sights. Tour Old Town, visit the Castle, wander across the Charles Bridge, listen to the street musicians, and everywhere marvel at the architecture.

Michael C. Zand

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DATES TO REMEMBER

1. CFFS Dinner - Sat., Dec. 2, 1995 at the Independence Brown Derby Roadhouse

2. Indoor Contest - Sunday, March 3, 1996 - Kent State University Fieldhouse.
   Events: EZB, Penny Plane, Mini-Stick, Bostonian, Jetco ROG.
   FAC Events: Indoor No-Cal, P-Nut Scale and Hi-wing P-Nut Scale, WWI P-Nut, WWII No-Cal Mass Launch.

AVIA B-534

The Avia Company started in 1919 and its first plane, the BH-Exp was flown in October 1920. The first prototype of the B-534 was flown in May 1933. After a number of improvements, including the aerodynamically balanced rudder and re-design of the engine cowling and air scoops, the first delivery contract with the Czech government was written in early 1935 for 147 planes powered by the Hispano Suiza 12-Ybrs. The national speed record of 365.744 kph was set in April. These early version I machines were armed with two machine guns, one on each side of the fuselage so they could be accessed by the pilot for reloading and clearing jams. Later versions had four machine guns, two in each pod. Version I machines had open cockpits whereas later models had enclosed cockpits and wheel pants.

Decoration of the version I featured in the plan is as follows:

Top surfaces are khaki tending to green rather than brown.

Bottom surfaces are matte silver (aluminum) but were painted grey later.

The khaki extended over the leading edges of the wings and around the tips forming a narrow stripe on the bottom side which ended at the ailerons on the top wing and at the 4th rib from the tip on the bottom wings. This stripe extended all the way around on the stabilizer. All roundels had a narrow outline of blue/violet.

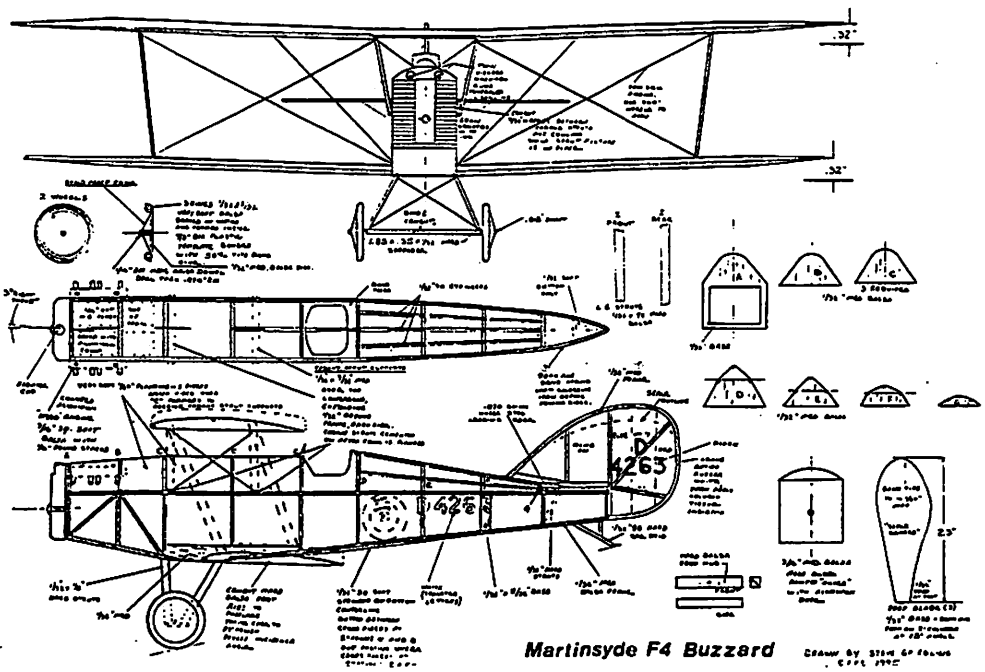
After the Nazi occupation of Czechoslovakia, the Avia 534s were marked with regular German insignia, but usually retained their khaki color, although some were painted all grey. They were used as advanced trainers for the Luftwaffe. Instrument panels were predominately black.

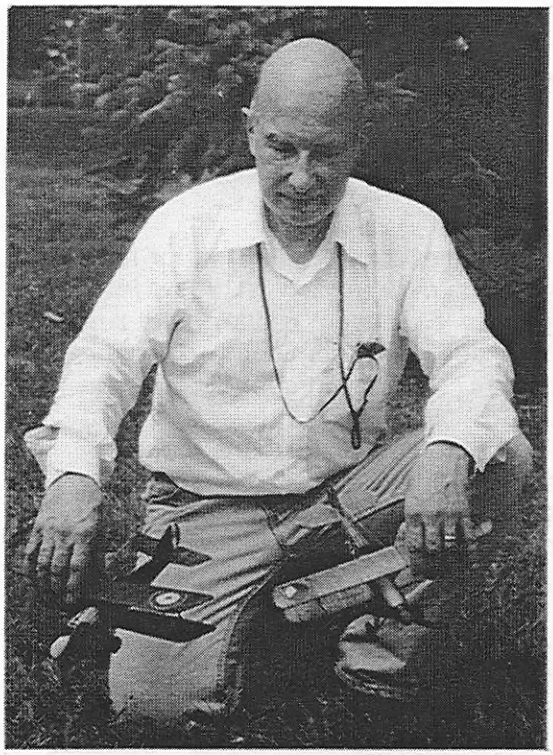
*Reference:* Publishing HOUSE mbi miroslav, Kocinova 1588, 155 00 Praha 5, Czech Republic.

Steve Griebling

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*Preview of Martinsyde Buzzard plan, Next Crosswinds feature in Peanut Scale.*

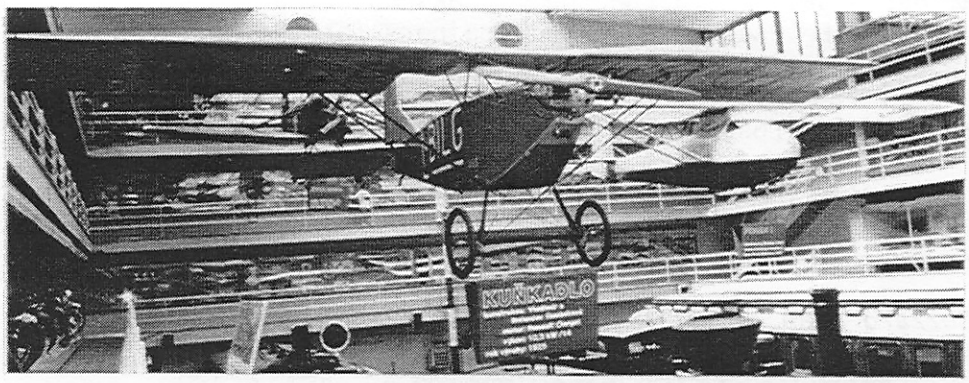




Steve Griebling with his Martinsyde Buzzard and Avia B-534 . Buzzard to be featured in next issue of Crosswinds.



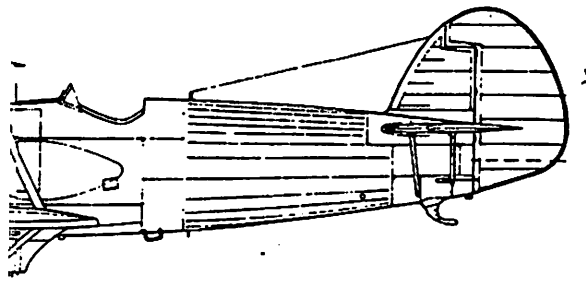
Gordon Roberts holds his Piper Pacer which was one of the subjects of Crosswinds 85.

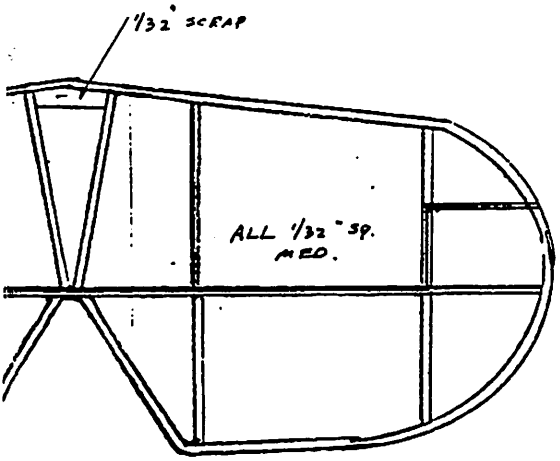


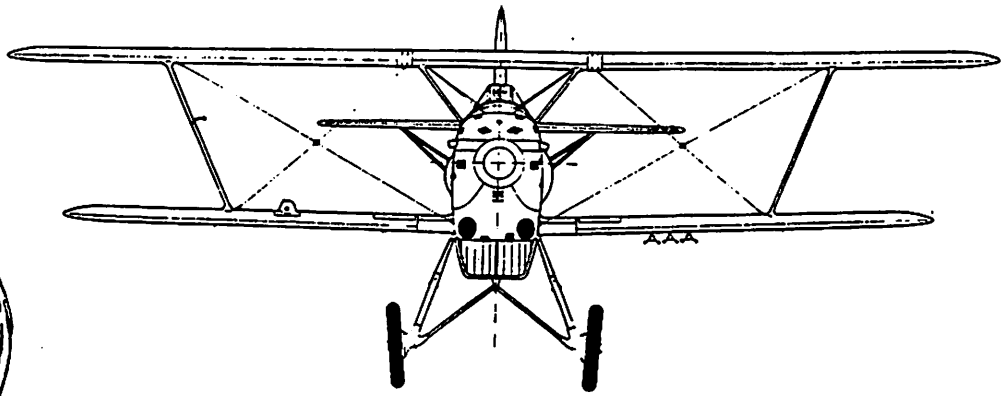

View inside the National Technical Museum, Prague CR. Anybody have the peanut plan for the Kunkadlo?

MUSEUM LETECTVI A KOSMONAUTIKY,
Praha-Kebely
Avia B-534

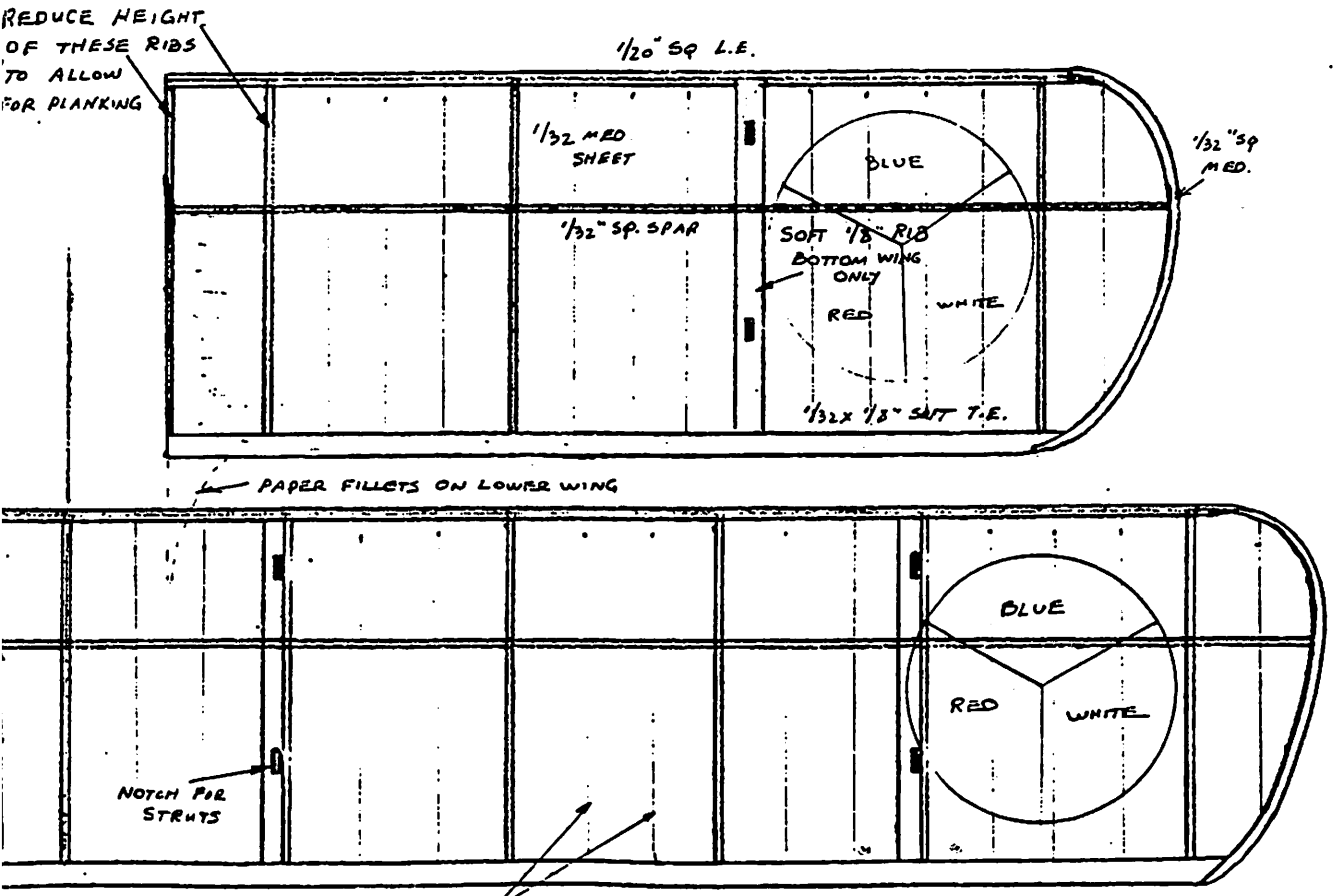




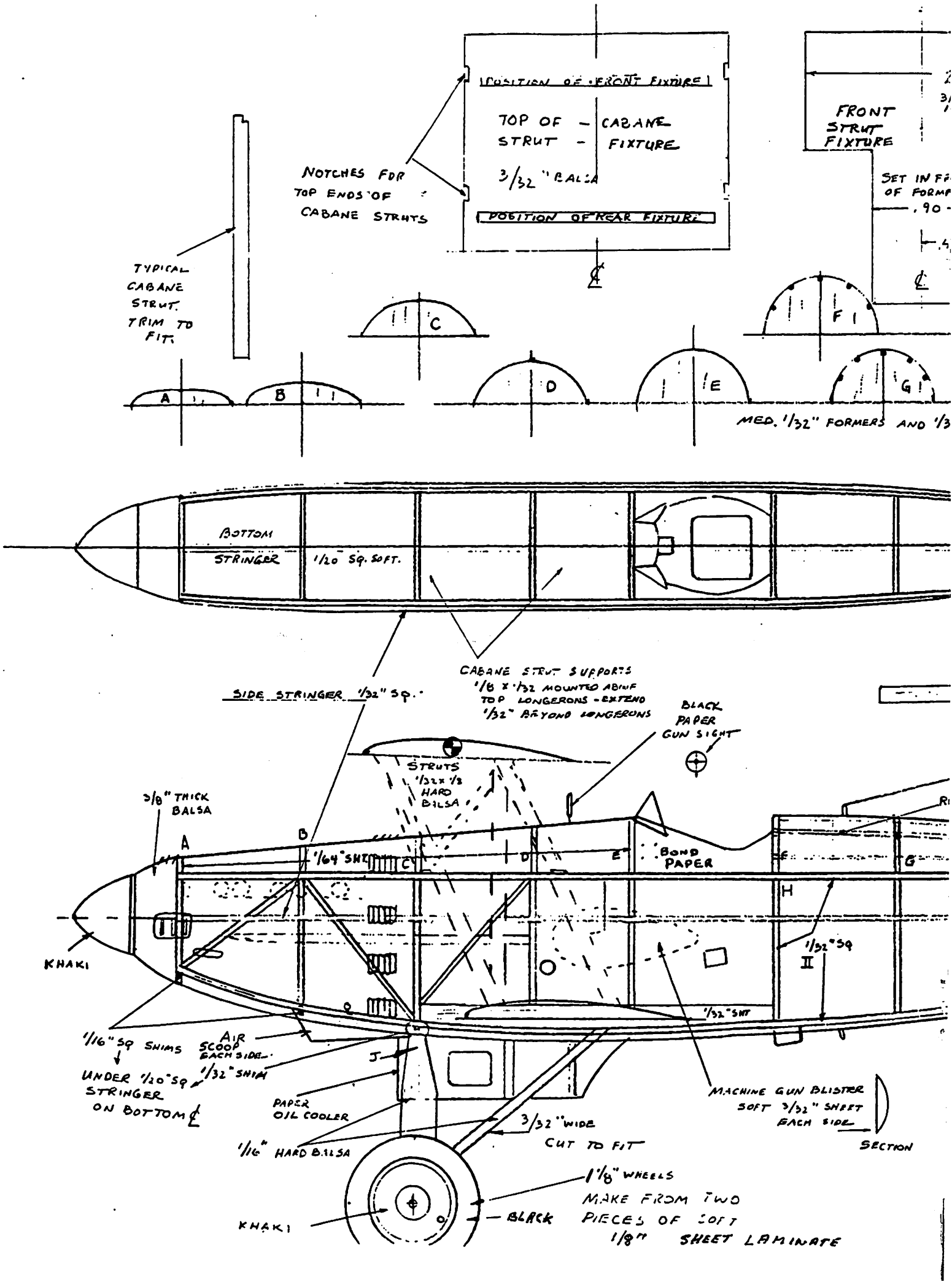
DIHEDRAL = .25"

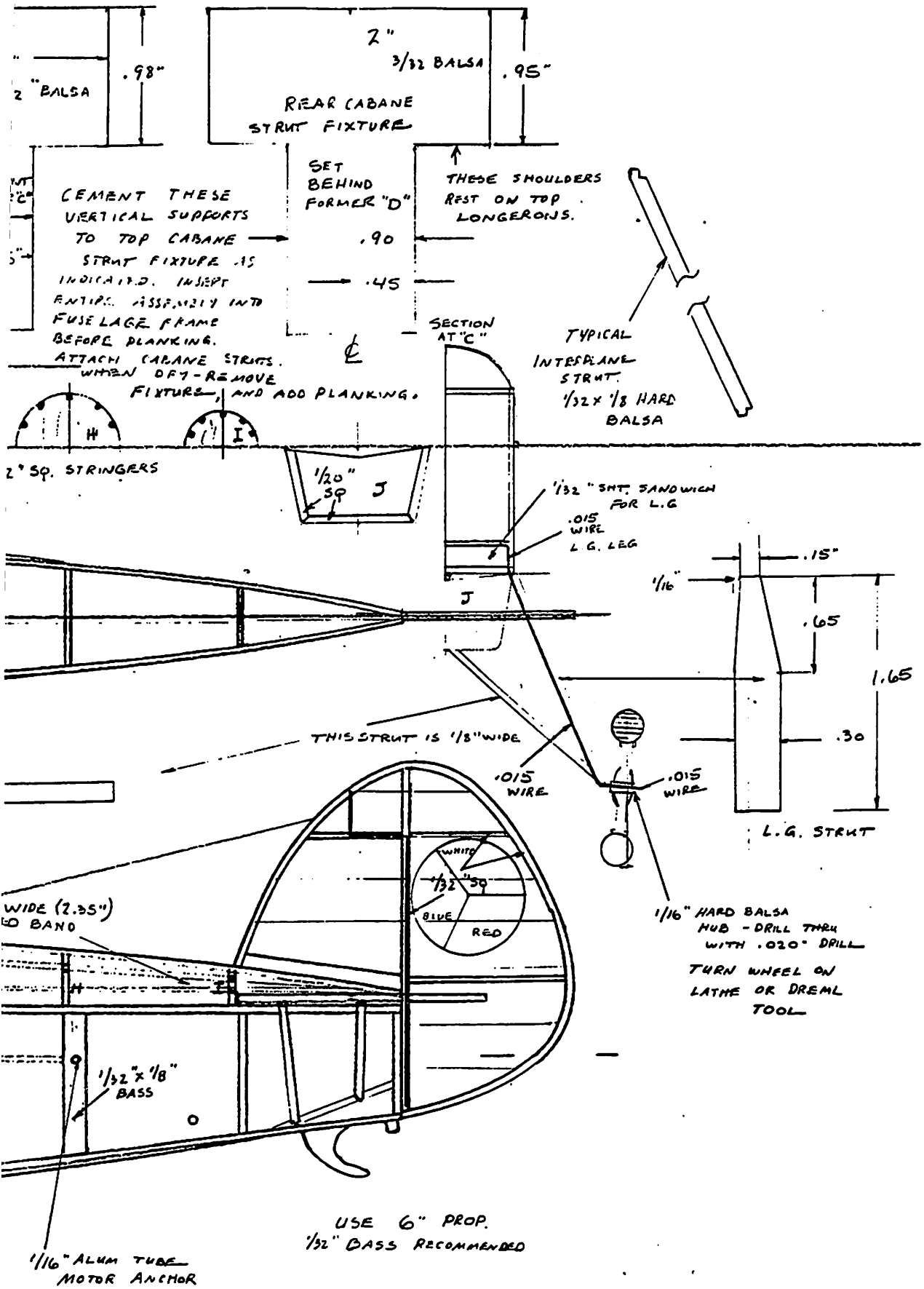



SCALE RIB SPACING.
DRAW ON TISSUE WITH INK AFTER SHRINKING ON FRAME BUT BEFORE DOPING

:1,

SSUE.


POSITION OF FRONT FIXTURE
TOP OF CABANE STRUT - FIXTURE
3/32" BALSA
POSITION OF REAR FIXTURE
NOTCHES FOR TOP ENDS OF CABANE STRUTS
FRONT STRUT FIXTURE
TYPICAL CABANE STRUT TRIM TO FIT.
A
B
C
D
E
F 1
G
MED. 1/32" FORMERS AND 1/3
BOTTOM STRINGER 1/20 SQ. SOFT.
SIDE STRINGER 1/32" SQ.
CABANE STRUT SUPPORTS 1/8 X 1/32 MOUNTED ABOVE TOP LONGERONS - EXTEND 1/32" BEYOND LONGERONS
BLACK PAPER GUN SIGHT
STRUTS 1/32 x 1/8 HARD BALSA
3/8" THICK BALSA
1/64" SHT
BOND PAPER
1/32" SQ
1/32" SHT
KHAKI
1/16" SQ SHIMS UNDER 1/20" SQ STRINGER ON BOTTOM
AIR SCOOP EACH SIDE
1/32" SHIM
PAPER OIL COOLER
1/16" HARD BALSA
3/32" WIDE CUT TO FIT
MACHINE GUN BLISTER SOFT 3/32" SHEET EACH SIDE
SECTION
1 1/8" WHEELS MAKE FROM TWO PIECES OF SOFT 1/8" SHEET LAMINATE
KHAKI
BLACK



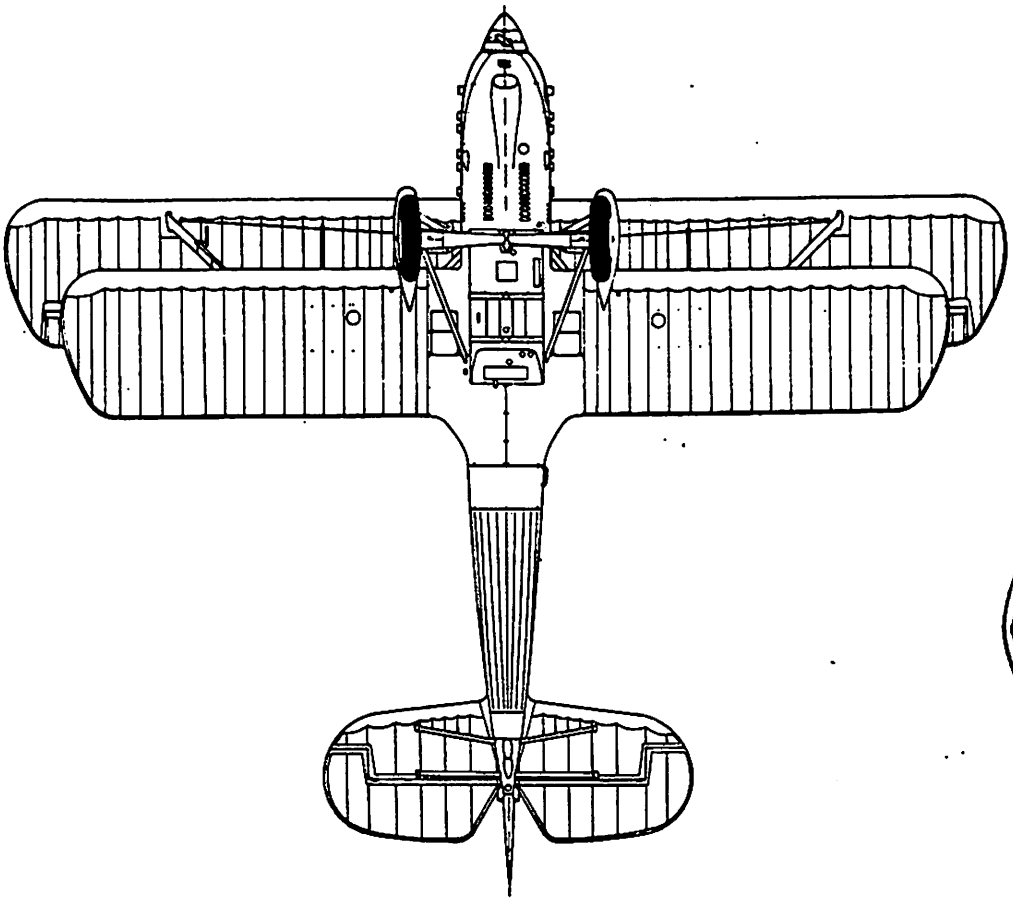

13" SPAN PEANUT SCALE

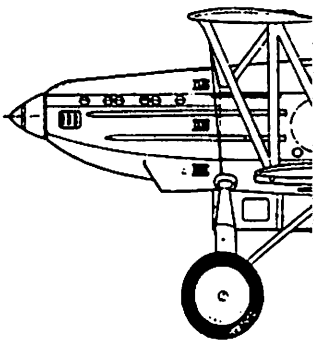
# AVIA B-534

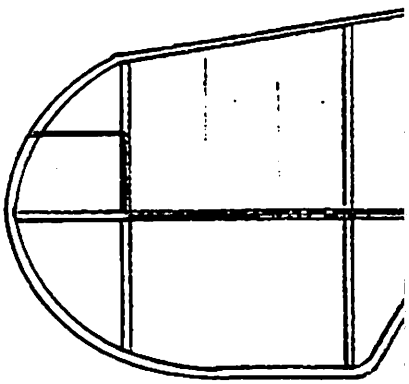
VERSION .60 1936

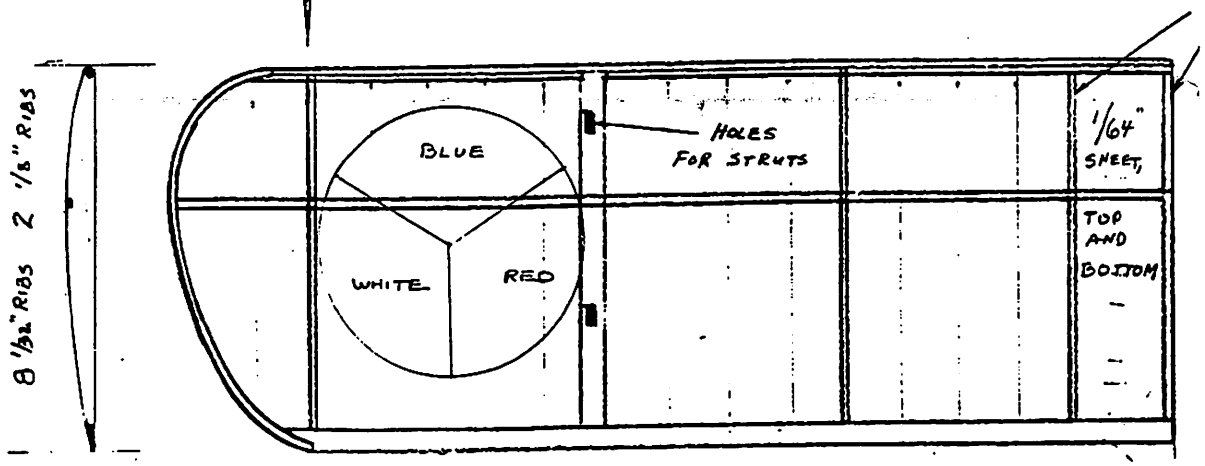
DRAWN BY STEVE GRIEBLING C.F.F.S. 1995

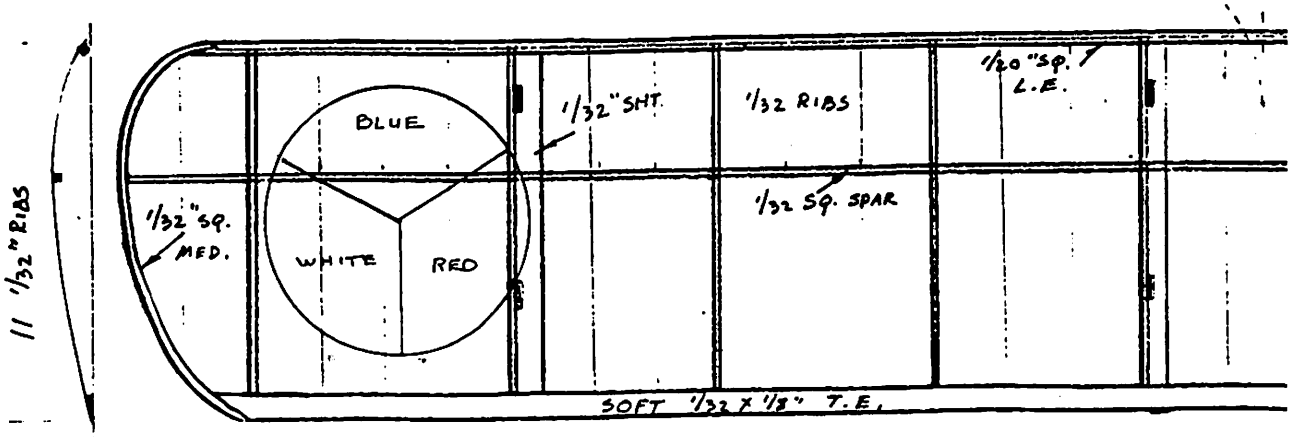
REF. AVIA B-534 MBI MIROSLAV BILÝ







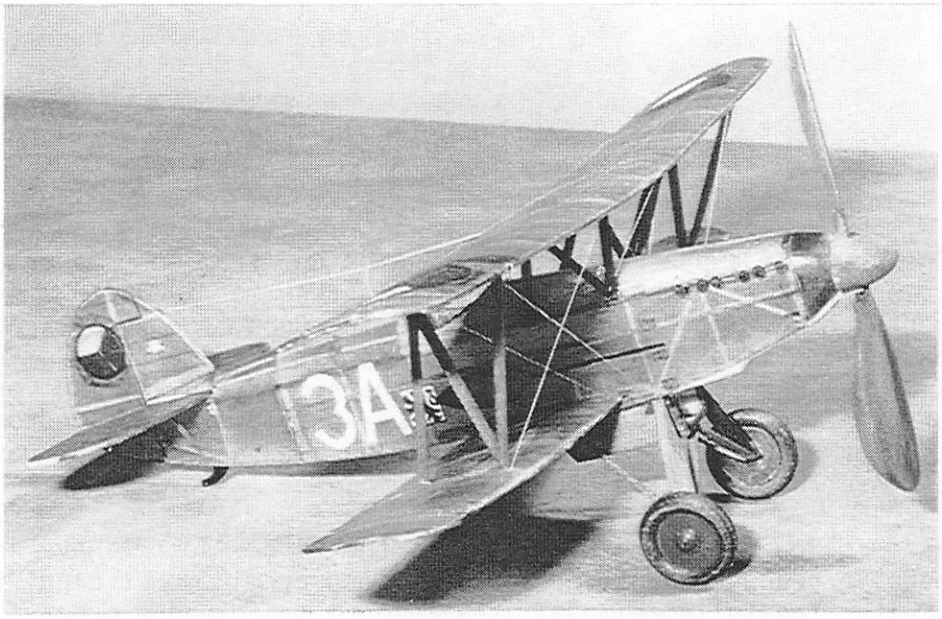


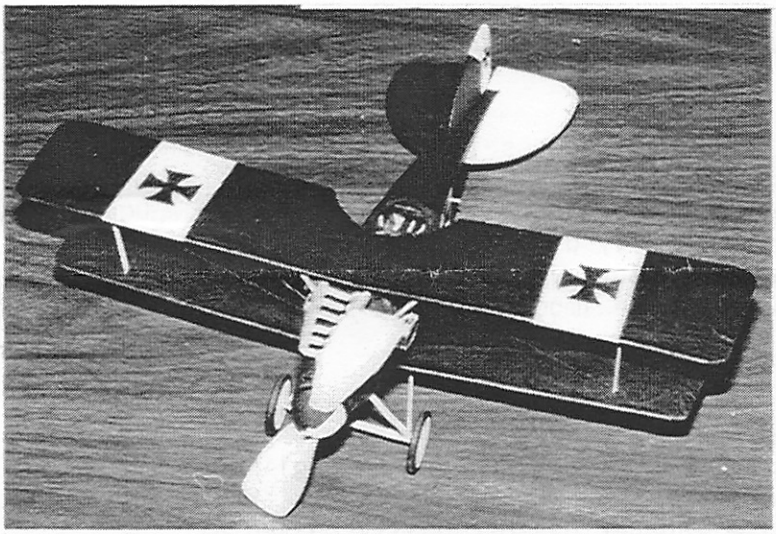

ALL UPPER SURFACES KHA

LOWER - SILVER.

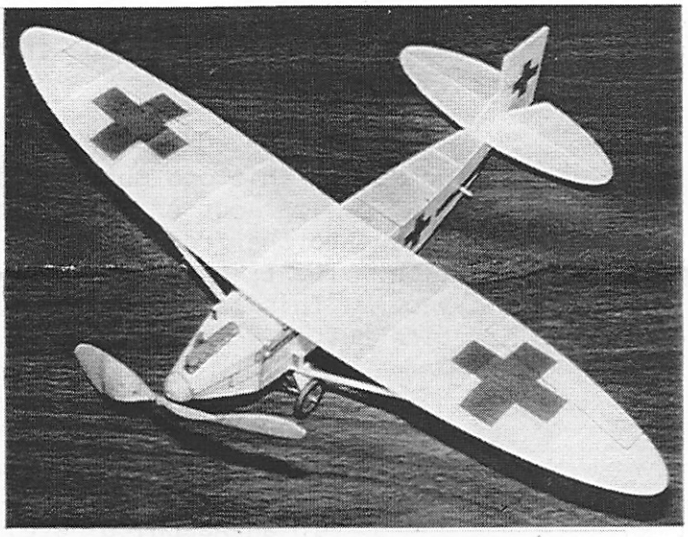
USE FELT TIP MARKERS ON WHITE JAPANESE T



This issue's prototype model, Avia B-534, by Steve Griebling. [also his photo]

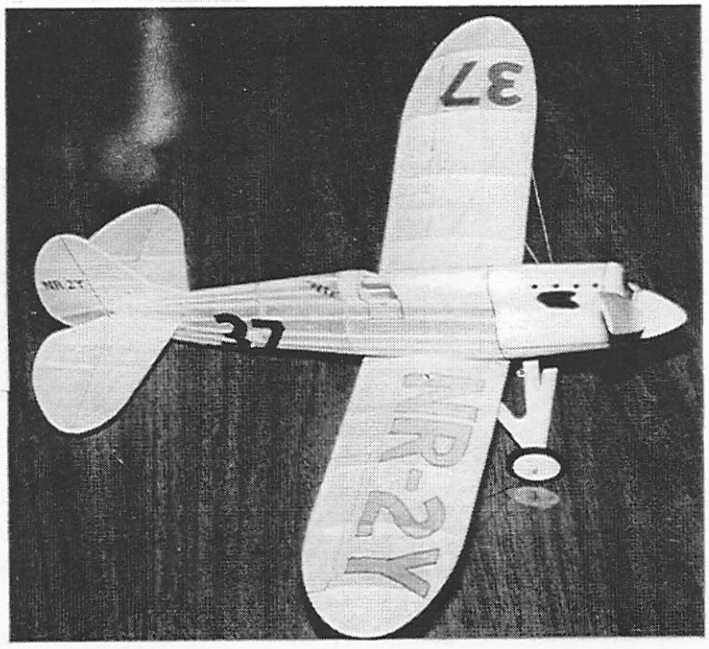


Albatross D-II by George Bredehoft. [Volare Products]



Kalinin K4 by Jack McGillivray.

These three models were part of the Peanut Scale entries at CFFS Indoor Contest February 25,1995 at Cleveland State Univ.




Howard "Pete" by Morry Hummel.

Next indoor contest

March 3, 1996.

Kent State University

RECAPITULATION AND CODA

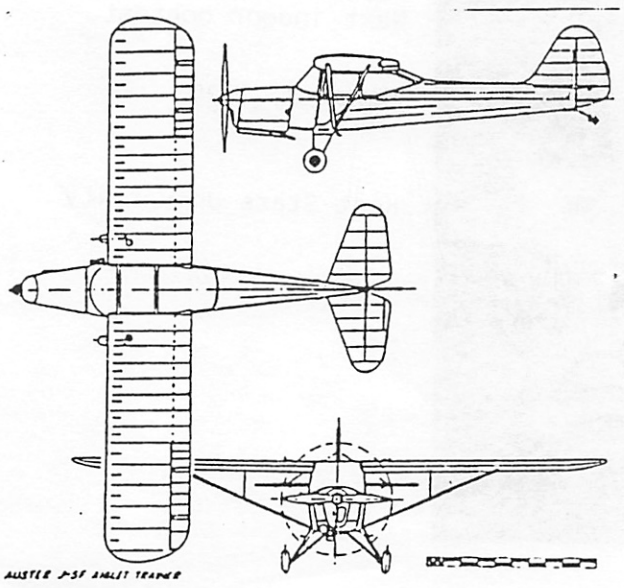
The theme of issue 85 received "thumbs up" from our readers who cared to respond, and all CFFS contests held this past summer included a special non-experimental high wing peanut event featuring Cubs, Vagabonds, Pacers, Rearwins and the like. One interesting suggestion came from Tom Waddington of Niagara Falls, New York. Tom suggested the Auster, an English version of the Taylorcraft. I actually saw one at Prague/Kbely and have a photo. This one in particular was all silver. A peanut plan is available from Dave Linstrum, 1109 36th Ave. W, BRADENTON FL 34205.

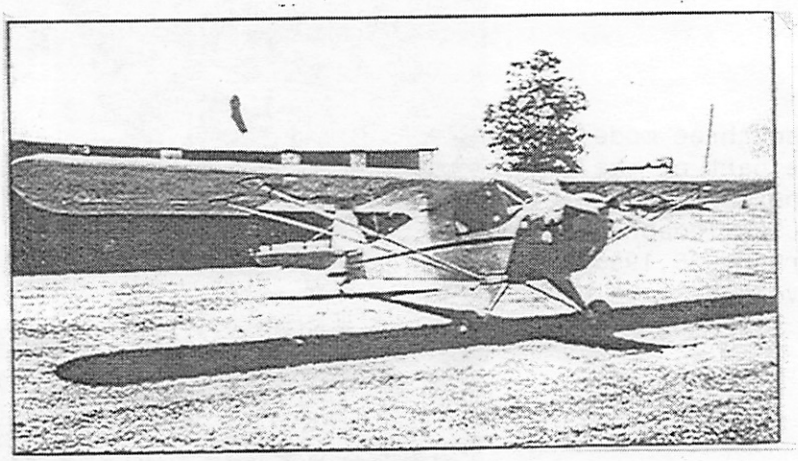
As a follow up to the R.W.D. 7 and the Piper Pacer I have included in this issue, a peanut reduction of a most popular old Comet plan, the 20" Taylorcraft. The fullsize model is simple to build and a great flyer. So why should this not be true in peanut size? I suggest an enlarged stab, the reshaped tail as shown on the documentation for the white and blue version, and a one piece wing with a center section. The latter makes alignment very simple. Russ Brown researched out several color schemes but, I like the all white with the blue fuselage stripe because it allows the use of the light and white"Ganpi" tissue.

Speaking of "Ganpi" tissue, I have had success in dying it with RIT dye. To accomplish this one must first construct a couple of sturdy balsa frames about 6" by 12" out of 1/2" square. Drill drain holes in the two ends. Dope the tissue to the frame and when dry carefully dip the frame in to the hot dye solution. The trick is to lift the frames out of the liquid with out tearing the paper. This is where the drain holes are important. It takes a little practice but it works.

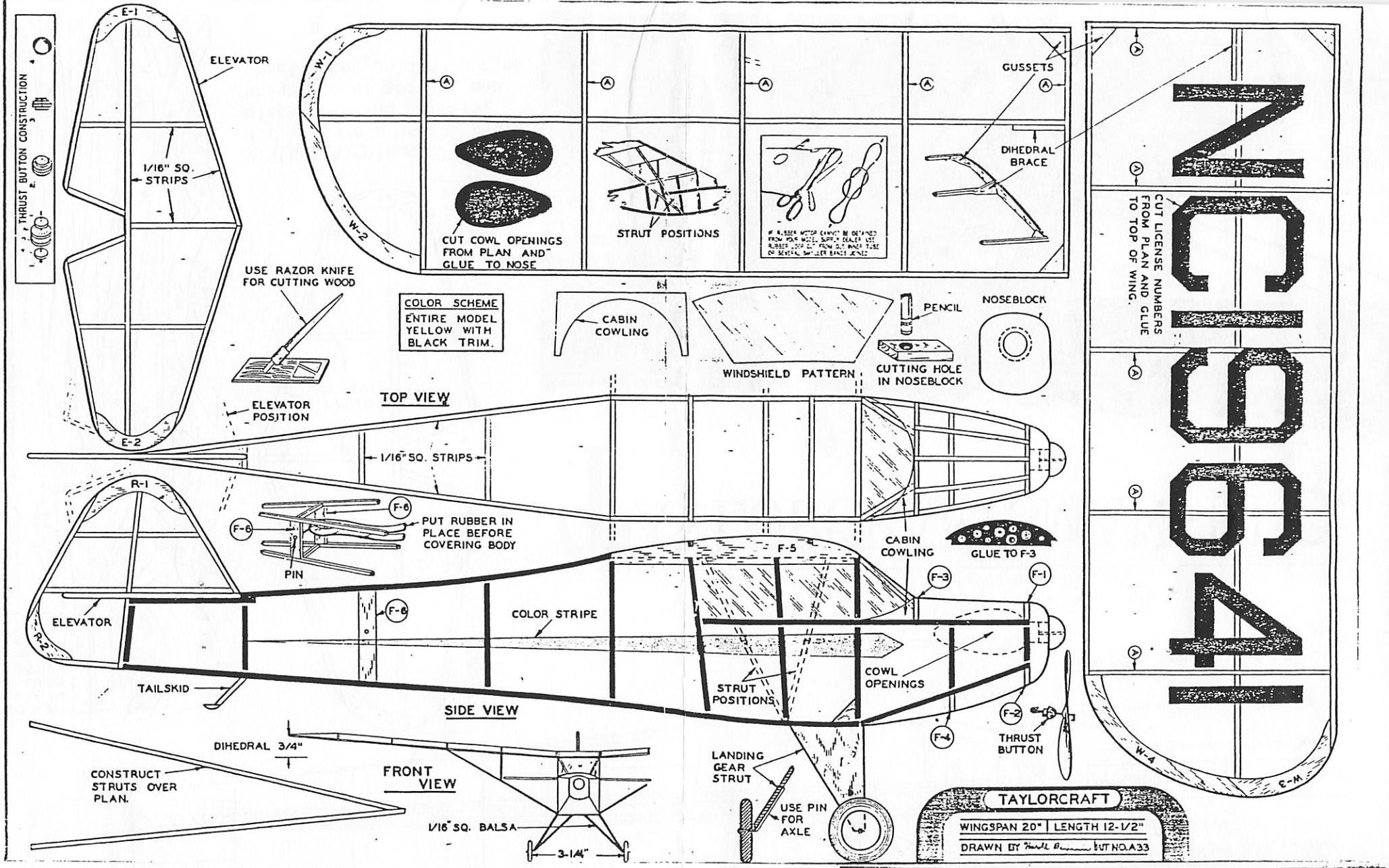
Two items in closing. First, remember that Hobbyists do it in their spare time and pastimes don't fatten wallets; they do something better: They enrich our souls. And from Blues News and Views, regarding English as a second language, appeared the following:

> In an Acapulco Hotel: The manager has personally passed all the water served here. And from a brochure of a car rental firm in Tokyo: When passenger of foot heave in sight, tootle the horn, trumpet him melodiosly at first, but if he still obstacle your passage, then tootle him with vigor!





Vintage Airplane 9/95 *Bill Fulgam's* 1939 Taylorcraft engine is a Continental A65-8, making the airplane a BC-65. Overall yellow, red nose, black diamond pt. split stripe. NC 23872, no wing numbers.



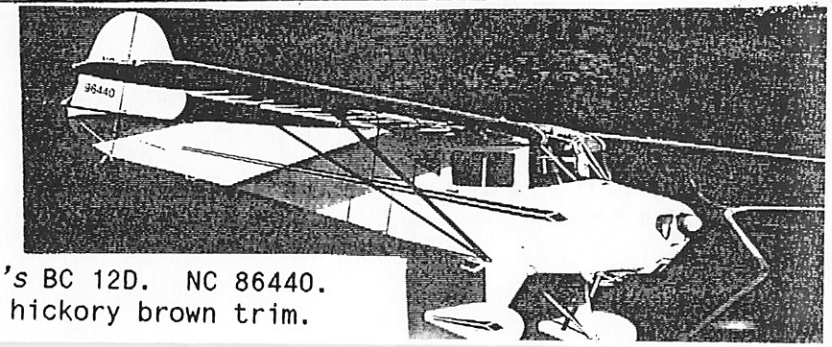


**CHANGE OF ADDRESS**
*CAMPBELL'S CUSTOM KITS*
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San Antonio TX 78263

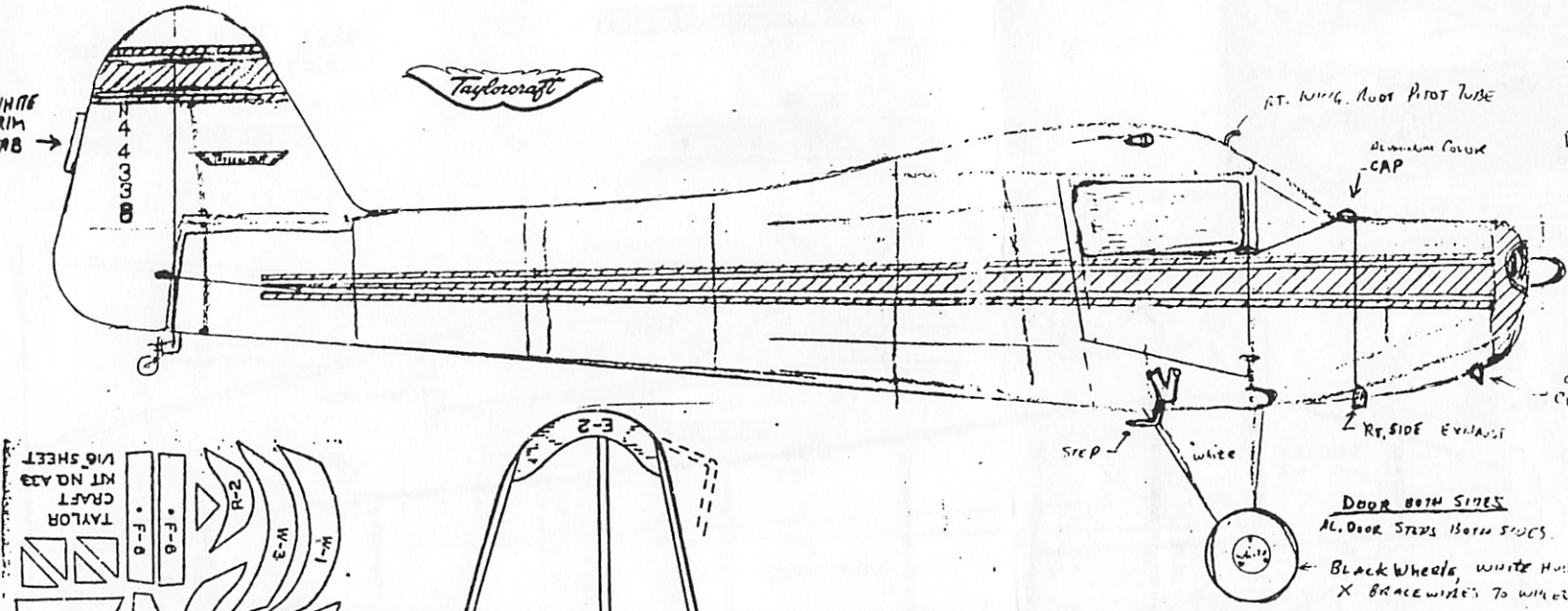



**COMET TAYLORCRAFT 54"**

OLD TIME RUBBER SCALE




*Don Claude's* BC 12D. NC 86440.
White with hickory brown trim.




Taylorcraft at Fond Du Lac, Wis. July 29, 1965 at EAA Oshkosh Convent

All over White with Navy Blue Trim Stripes, White Struts. Black N4433B on Rudder.

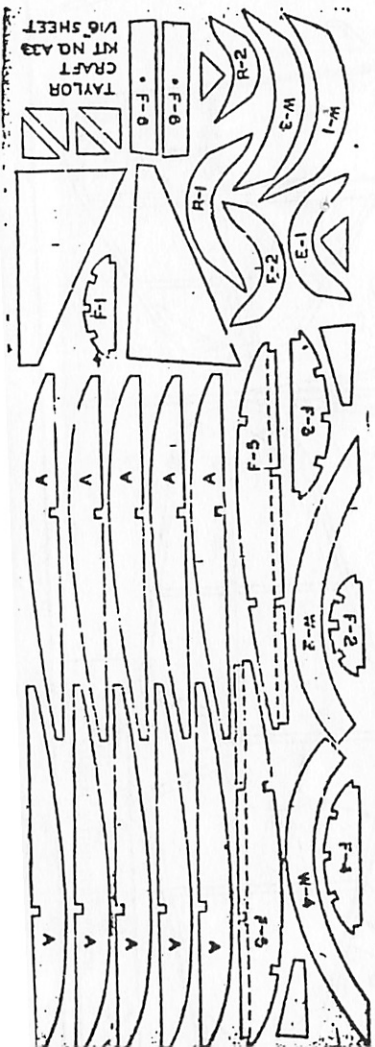
Silver Taylorcraft Decal on Fin. Chrome Prop Hub.

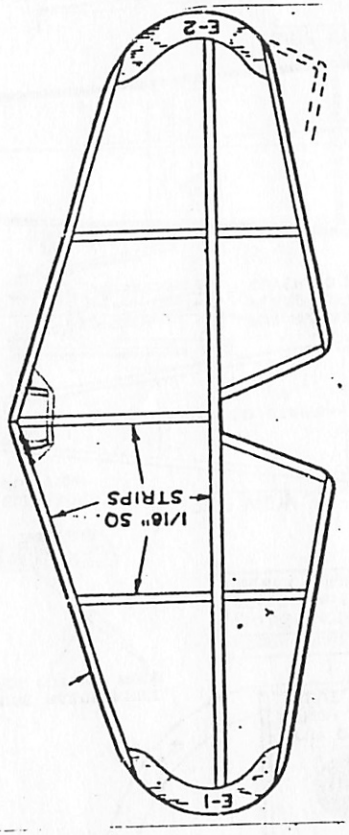
Navy Blue Nose with Metal Grill

Dark Grey Aluminum Prop, White Tip

Carb Vent ? Center under cowl in white zone

Russ Bishop 5/9/86




# TAYLORCRAFTSMANSHIP



Vintage Airplane 6/88

*A.C. Hutsin's* bright red, black trim and numbers. Bright metal spinner and wheel hubs, gold prop tips.

NC 23663

## CLEVELAND
## CROSSWINDS SPECIAL!!!
$1.00 off every Race Plane!

| | | | |
|---|---|---|---|
| No-Cal RB-1 | Peanut Tabloid | Peanut Fury | Scale CR-3 |
| No-Cal Fury | Peanut Chief Oshkosh | Scale Caudron | |

# Volaré Products

## Rubber Scale Plans

October 1995

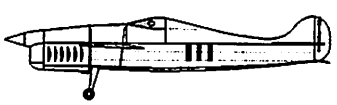
815 Licking View Drive
Heath, OH 43056-1539

All plans designed to conform with the *Flying Aces Club* Rules. All plans have been built, tested and flown to at least the *FAC* minimum of 20 seconds. Several of the plans have been *FAC* Contest winners! All plans designed and drawn using CADD (Computer Aided Design and Drafting) technology. Many of the smaller plans are printed using a Laser Printer for the highest resolution. The larger plans are printed on continuous sheets: NO "paste-together" plans. All products mailed First Class USPS.

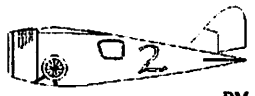
**LATEST PRODUCTS:**

Wittman "Chief Oshkosh"

Mid-wing Greve Racer **Peanut**



## No-Cals (16" span profile models) — $3.00


DM

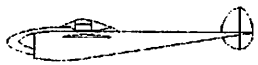
**Dayton-Wright RB-1** Built for the 1920 Gordon-Bennet Race. High-wing with retractable landing gear. Approx. 61 square inches.


DM

**Hosler "Fury"** Built for 1938 Nat'l Air Races. Shoulder wing with 25" fuselage and almost 120 square inches of wing area! One of the largest No-Cals ever!


DM

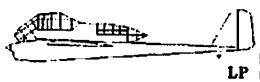
**Yokosuka "Ohka"** Japanese WWII rocket powered suicide bomb. Low-wing with long fuse in tractor configuration. Approx. 60 square inches.


LP

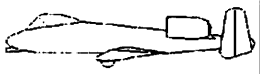
**Lockheed P-38 "Lightning"** US WWII twin-engined fighter. Shoulder-wing with two motors & props. Approx. 35 square inches.


LP

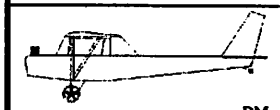
**Consolidated PBY-5 Catalina** US WWII twin-engined recon-bomber flying boat. High-wing with two motors/props. Approx. 37 square inches.


LP

**Focke-Wulf 189** German WWII twin-engined recon/night fighter. Low-wing with two motors/props. Approx. 35 square inches.


LP

**Fairchild-Republic A-10 Thunderbolt II** current USAF attack-recon. Low-wing jet powered in tractor configuration. As seen in Desert Storm. Approx. 43 square inches.

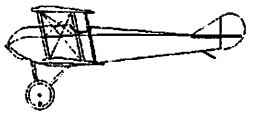

DM

**T.E.A.M. Hi-Max** High-wing homebuilt. Simple to build -- No curves. Approx. 49 square inches.

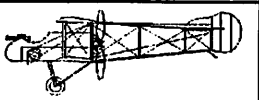

LP

**Aircraft Design "Stallion"** A sleek, high wing, retracted gear kit-plane. Can be built very light. Approx. 33 square inches.

## Peanuts (13" span full-bodied) — $4.00

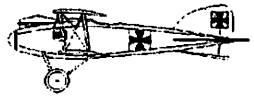

LP

**Sopwith "Tabloid"** British WWI recon/fighter. Biplane in three versions: normal gear, skid-type gear, and the 1914 Schneider Cup Race Winner with floats!


LP

**deHavilland DH-2** British WWI fighter -- helped end the "Fokker Scourge". Pusher bipe. Challenging!

## Peanuts (13" span - cont.) — $4.00


DM

**Albatros D.II** German WWI biplane fighter. Helped Germany regain control of the skies from the DH-2. For Peanut Scale or WWI Combat.


DM

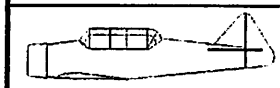
**Wittman "Chief Oshkosh"** 1937/38 version of the famous racer. 1":1' mid-wing with a large area wing. Eligible for Greve Races.


DM

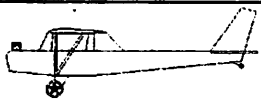
**Hosler "Fury"** Built for 1938 Nat'l Air Races. Shoulder wing with 20" fuselage and almost 80 sq. inches of wing area! One of the largest Peanuts ever! Eligible for Greve Races.


LP

**Polikarpov I-16 "Rata"** Soviet WWII fighter. Also flown in Spanish Civil War. One of the first with cantilever wings and retractable landing gear.


LP

**North American AT-6 "Texan"** US WWII two-seat low-wing trainer.


LP

**T.E.A.M. Hi-Max** High-wing homebuilt Simple to build -- No curves.

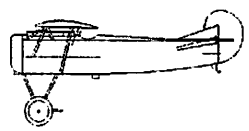

LP

**Aircraft Design "Stallion"** A sleek, high wing, retracted gear kit-plane. Very clean and can be built quickly and light.

## Other Products

| | |
|---|---|
| **Prop Forming Data Pack $5.00** | Computer generated data pack for accurately forming props using various cylinders and layouts. |
| **Volaré Prop Software Pack $25.00** | Three computer programs for MS-DOS machines for layout of accurate props. Three construction methods: Carve, Form, and Stack. 20-page manual. 3.5" or 5.25" floppy. **POST PAID.** |
| **The Greatest Paper Airplanes™ by KittyHawk Software, Inc. $5.00** | A great shareware ("try before you buy") program for Windows™. Loaded with history of flight and animated instructions for folding several paper airplanes (non-scale.). **POST PAID.** |

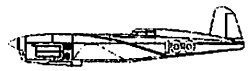
## Scale (various span full-bodied) — $6.00


DM

**Fokker D.VIII** German WWI monoplane fighter. One of the last fighters of WWI. Nicknamed "the Flying Razor" due to the low frontal area. 18" span parasol for Scale or WWI Monoplane.


DM

**Cessna Cr-3** 1933 racer built for Johnny Livingston. 18.5" span shoulder-wing for Races (Thompson) or Scale.


DM

**Caudron C.460** Winner of the 1936 National Air Races. 22" span low-wing racer for Races (Greve) or Scale.


DM

**Curtiss P-40F "Warhawk"** US WWII fighter. 20.625" span low-wing for WWII Combat or Scale.

## JUMBO (over 36" span, 30" bipes) — $8.00


LP

**Aircraft Design "Stallion"** A sleek, high wing, retracted gear kit-plane. Very clean and can be built quickly and light. 36" span

**All Items Shipped USPS 1st Class**

**Prices:**

| | | | |
|---|---|---|---|
| No-Cal | $3 ea. | Software | individual prices |
| Peanut | $4 ea. | P&H | $1 per 3 plans |
| Scale | $6 ea. | Software | POST PAID |
| JUMBO | $8 ea. | | |

Please Note: The "DM" and "LP" refer to the print method used on each plan. "DM" refers to Dot Matrix printer; these are multi-page, continuous, unseparated sheets. The "LP" refers to Laser Printer; these plans may be a single sheet or multiple sheets -- each part contained on the sheet -- not continued across pages (not "paste-together".)