

MAX - FAX



THE NEWSLETTER OF THE D.C. MAXCUTERS

JAN/FEB 1982

MEMBERSHIP

Dues for membership in the D.C. Maxcuters is \$9.00 per year for residents of the U.S.A. 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. Maxcuters, to the Treasurer.

DUES REMINDER.



PRESIDENT

DUDLEY PRISEL
5118 Alfred Drive
Waldorf, Md 20601

SECRETARY

GLEN SIMPERS
RT 1, Box 367
White Plains, MD 20695

TREASURER

ALLAN SCHANZLE
8311 Exodus Drive
Gaithersburg, MD 20760

MEETINGS

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

UPCOMING EVENTS

KENNEDY HIGH SCHOOL DATES : Saturday Jan 9 1982, 7:00 to 10:00 PM, (Note the different hours) and Saturday Feb 27, 1:00 to 4:00 PM. The Feb. date will be designed to encourage CO₂ flying. See CLUB NEWS for details.

INDOOR CONTEST : Jan. 17, 1982 at Sun Oil Co., Chester PA. See flyer in this issue.

BULL SESSION : Jan. 30 1982 at the home of Ray Rakow, 9111 Crosby Rd., Silver Spring, MD. Call Ray at 588-0317 if you need directions.

INDOOR CONTEST AT ANDREWS AFB : March 20, 21 1982. See flyer in this issue for details.

ANNAPOLIS CONTEST : We have not been able to firm up a date with the U.S. Naval Academy, so we have been forced to abandon any hope for a contest at this facility in Jan. Efforts are continuing, however, for future use of this excellent facility.

CLUB NEWS

ALLAN SCHANZLE

CHEEZE!!!! I thought this was a model airplane club, but our recent elections produced two of last years officers "railroaded" into another term. Ya kinda gotta wonder - do we congratulate Glen Simperts for being elected secretary, or John Sites for not being elected?

THE FEB. 27 Kennedy High School flying session will be dedicated to indoor CO₂. This is planned as a fun fly with the primary goal of learning more about CO₂ power. Events will be spontaneous - perhaps even personal on-the-spot challenges. Awards will be made for the "Best Scale Performance" (whatever that is) and longest flight powered by CO₂ - any plane, stick microfilm if you like, with a 20 cc tank.

THIS ISSUE contains a feature plan for you competition minded, bonus point, freaks - a really unusual twin engine Fokker G-1. This plan was published by Alan Booton in the April 1937 issue of AIR TRAILS. Rubber power is reasonable, but a couple of those new peanut CO₂'s would be a real "gas". Our previous two articles on aerodynamics has motivated Bud Carson, professor of aerodynamics at the U.S. Naval Academy, to make a further contribution to our understanding of low speed flight. And from the Nov. 1931 issue of POPULAR AVIATION, a description of a full scale aircraft designed just for you rule benders. How about someone drawing up a set of plans, send them to MAX-FAX for publication, and tell me the wingspan!! Hey, Bill Winter does that uncovered upper surface of what-ever-it-is-on-top relate to those flying flat plates you discussed in MODEL AVIATION some time ago? Finally, Bill Johnstone in Newark Delaware, sent a description of what sounds like a great book 60 color 5-views.

Oops, I forgot to mention that the feature plan was designed to be covered with 1/64 sheet balsa, so a tissue covered version will require a few modifications, like a wing trailing edge and a few more stringers on the engine booms.

PHOTO PAGES

TOM SCHMITT

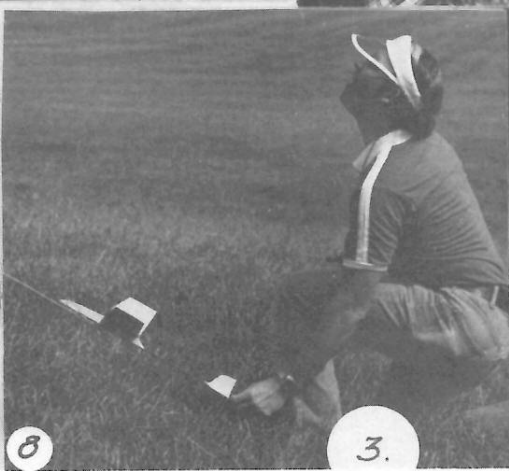
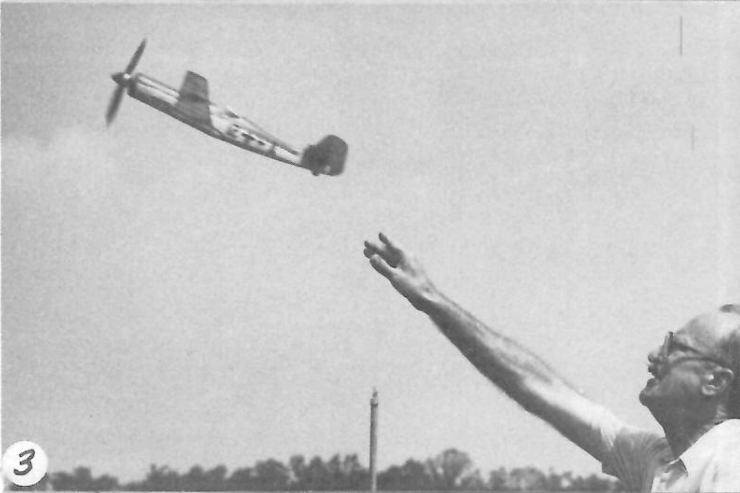
MORE D.C. MAXECUTERS SUMMER FUN FLY PICS

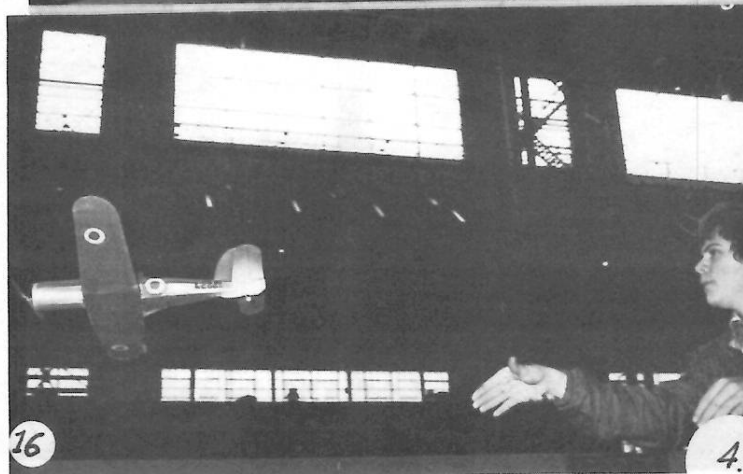
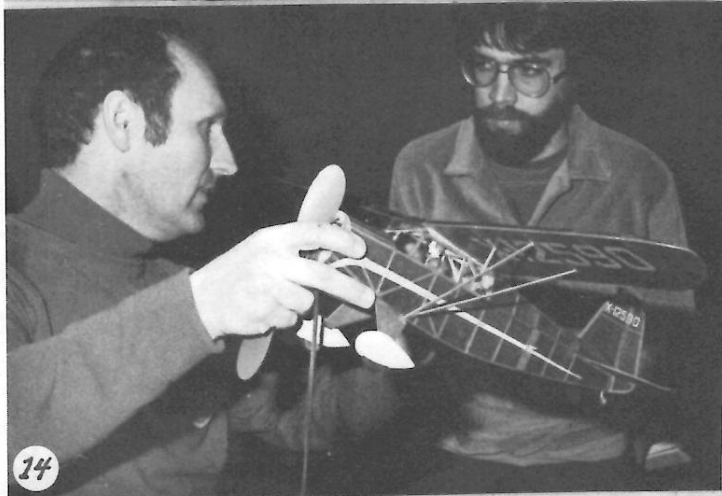
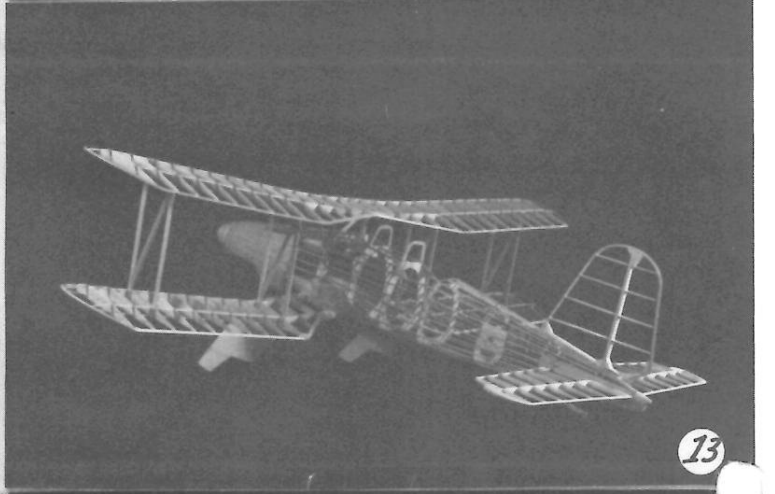
1. Mass launch Golden Age style. Dudley Prisel's Ercoupe very realistic.
2. Jerry Paisley assists Pat Daily with his third place Inland Sport.
3. Nick Ropar launches his sleek TA 152 for WW-II.
4. Bill Bell adjusts his Fairchild 24 Golden Age entry.
5. A CO₂ Flyline Monocoupe by Dave Rees.
6. Rowland Hoot and his very, very pretty Mr. Mulliagn.
7. Nick Ropar and his fine flying PT-1
8. Catapult winner Bruce Simperts prepares to launch.
9. Another view of Dave Rees' Caudron Simone.

POT POURRI - PAST - PRESENT - FUTURE

10. Our scale mentor, Bill Winter, shows he has not forgotten how to hold a rubber model - Don Srull's Schlepp. (Ed. note: If I could read Bill's mind, I would guess something like this. "Don, please don't ever again forget your motor peg and substitute a straight pin!")
11. Another view of Nick Ropar's pretty PT-1.

(continued on page 8)





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17

BOOK REVIEW, NUMBER TWO

BILL JOHNSTONE

Just the other day, I happened across a copy of "ACES OF THE AIR" by Francis K. Mason (Mayflower Books, New York). As it was on sale, I thought it worth a look. What a surprise! Sixty one different aircraft, each the personal machine of a particular "ace", each shown in color 5-views. (Not entirely true--the Short 184 is short (pun intended? ed.) one view). There is a biographical sketch of each pilot, description of the incident(s) that made him an "ace" (a few are civilians and some reached aedom in peacetime) and photo(s). Originally published at \$20, the book is on sale for \$10 at Book & Cardmart type establishments. If you're a scale builder (you mean somebody isn't?) this book is worth a long look. It's a large format--9" x 11½"-- and loaded with goodies. Only two negative coments: 1. No table of contents or aircraft index (pilot index, though), and 2. Photo's only of pilot, or pilot and friends, or pilot and some other aircraft, or some other aircraft alone and of generally poor quality. But who cares; the 5-views are great! A list of aircraft is included below.

Final note. I am the proud holder of Amateur Radio License KA3DPR and would love to meet some other scale modelers on the air. I'm currently limited to the Novice bands and CW (code) but am working on my general license. Anyone in the club who is also a "Ham" may have my address. (Contact the editor of this bi-monthly trashwrapper for Bill's address). It would be great to meet a MAXECUTER on the air.

Bleriot's Type IX

Chas. Samson's BE2a

Chas. Edmonds' Short 184

Immelmann's Fok. E I

Lanoe Hawker's DH2

Willy Coppens' Sopwith 1½ Strutter

Albert Ball's SE 5 (that's right--no "a")

Werner Voss' Albatros DIII

Collishaw's Sopwith Tripe

Bishop's Nieuport 17

Richtofen's Fok. DrI (It wasn't all red!)

Rudolf Berthold's Fok. DVII

Udet's Siemens Schuckert DIII

Frank Linke-Crawford's Phonix DI (rare bird)

Rickenbacker's SPAD S XIII

Wm. Barker's Sopwith Snipe

Alan Cobham's DH Giant Moth

John Boothman's Supermarine S 6B

James Mollison's DH Puss Moth

George Bulman's Hawker Fury

Horace Hickam's Curtiss Shrike

Eino LÜÜKANEN's Fok. D XXI

Al Deere's Spitfire IA

Walter Rubensdorffer's Bf110D-2

Galland's Bf 109 E-1

R.S. Tuck's Hurricane I

Bob Johnson's P-47D

Heinz Bar's Fw 190A-7/R3

Pat Pattle's Gloster Gladiator II

Pierre Le Gloan's Dewoitine D.520

John Kent's Spitfire VB

Hans-Ulrich Rudel's Ju 87 B-2

Matsuo Fuchida's Nakajima B5N2 Kate

Eugene Esmonde's Fairey Swordfish II

Chennault's P-40B (not really his)

O'Hare's F4F-3

B-25B (Tokyo Raid--for Wm. Mitchell)

J. A. Leppla' SBD-3 Dauntless

Marseille's Bf 109 F-4/Trop

Sakai's A6M2 Model 21 Zero

Roland Beamont's Typhoon IB

Gibson's Lancaster B Mk. III

Bruno Meyer's Henschel Hs 129

Leon Johnson's B-24D

Arthur Aaron's Stirling B Mk. III

'Pappy's' F 4U-1A

Edouard Tratt's Me 410A-1/U4

Prince Heinrich's Ju 88C-6C

John Cunningham's Mosquito NF Mk. XVI

M. V. Avdyeyev's Yak-9D

Dick Bong's P-38J

CONTINUED ON PAGE 7

A Plane That Is Sucked Up in the Air

by O. WESTCOTT YOUNG

An interesting study of an airplane that is based on entirely new principles and flies. This ship is shown on the cover of this issue.

NOT LONG ago Louis Bleriot said that the most important need of aviation "is increased safety, and that a way must be found to cause the airplane's wings themselves to act as a parachute—or to construct wings which will make it possible for a plane to descend in the manner of La Cierva's autogiro."

In the last two years, the autogiro has been the only machine introduced which has demonstrated its ability to

moving mechanical device as with the autogiro.

In Cincinnati, 1930, the XL-2 experimental plane made its appearance. The plane introduced a new theory of lift and self-balancing force. A hollow wing or cellule was employed with an open top to create an area of low pressure in and above the cellule. The lift was located along the front half of the fuselage, well forward above the engine, and laterally over the air channels at the highest point over the load.

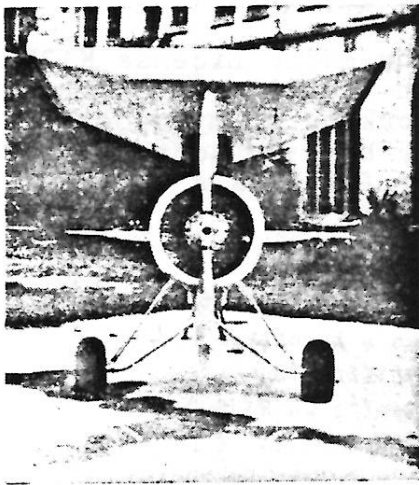
At the Lunken airport this experimental plane developed several important characteristics; namely, that of exceptionally great lift and a self-balancing force at any speed. An exceptional retarding effect in a nearly vertical descent performed the function of a parachute; that is, lifted more than one-half the gross weight of the plane above the center of gravity.

Beneath the cellule lift, Mr. Lanier attached wings that were separated from the body. Theoretically, the inventor claimed, the cellule with 98 square feet of open top surface at 40 miles an hour was lifting between nine and ten pounds per square foot. With 131 square feet of effective surface of two degrees angle of incidence, they were lifting only 3.7 pounds per square foot. But the skeptics at the airport just smiled.

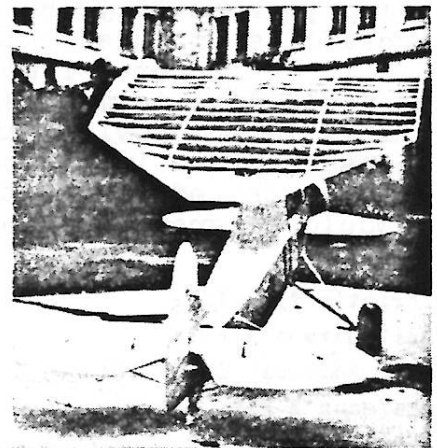
The plane went aloft—not once but forty times. Pilots reported that no ship built at that time had the ability to settle from a considerable altitude with so little forward speed. At 200 feet, with the engine throttled to a slow idle, the ship pancaked the full distance and injured nothing. It was under control at all times and landed

with a forward speed of under 20 miles an hour.

Pilots also proved that the XL-2, when skidded or slipped, automatically assumed an even keel and maintained stable flight. At an altitude of 2,500 feet, the ship was started into a steep dive with the power off. After reaching a limiting speed it did not further increase. The nose of the ship showed no tendency to drop into steeper dive, but instead, the ship righted itself on



Front view showing short span of lifting cellule.



Showing cellular construction of lifting surfaces.

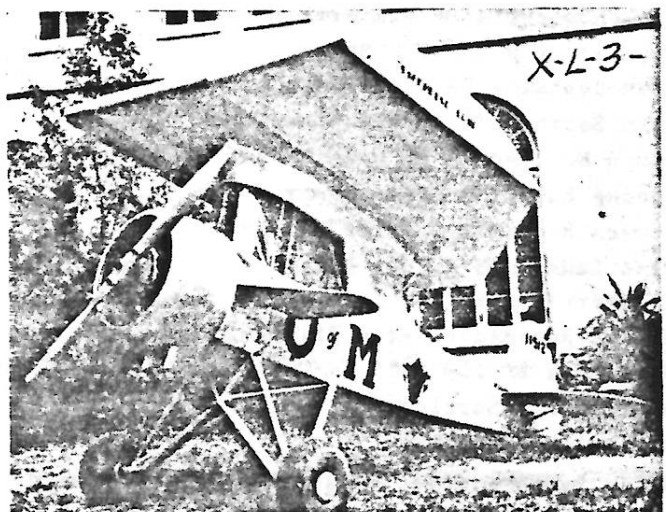
do the very thing which Bleriot has urged, but the keynote of its success has been the swirling rotor over the pilot's head—a direct mechanical process.

But today, such a plane as foreseen by this famous pioneer has been constructed and flown by the University of Miami in Coral Gables, Florida. Called the "Vacuplane," it represents two years of experimental work carried on by Edward H. Lanier of Covington, Ky., and its construction is radical in view of the fact that the plane is without wings, in the ordinary sense. It depends entirely upon a high lift cellule for flight which in turn acts as a parachute in descent.

Long before Bleriot urged the need of safety Mr. Lanier had perfected a machine to manufacture ice cream cones. When he found himself free to undertake a hobby he turned to airplanes. Back of his decision was the belief that a new type of lifting surface for airplanes could be designed. A type which would have greater lifting power, close to and over the cabin and fuselage. This would prevent diving or slipping and would climb or descend almost vertically without utilizing a

The ship complete and ready to fly—a three-quarter view. The short span permits of storage in small quarters.

This design adapts itself well to cantilever construction because of the short cell.



an even keel and pancaked to earth—safely.

The inventor was satisfied that the cellule lift made a ship inherently safe and "foolproof," but despite the tests, aviation experts contended that the small wings were doing the trick and not the cellule. So Mr. Lanier packed

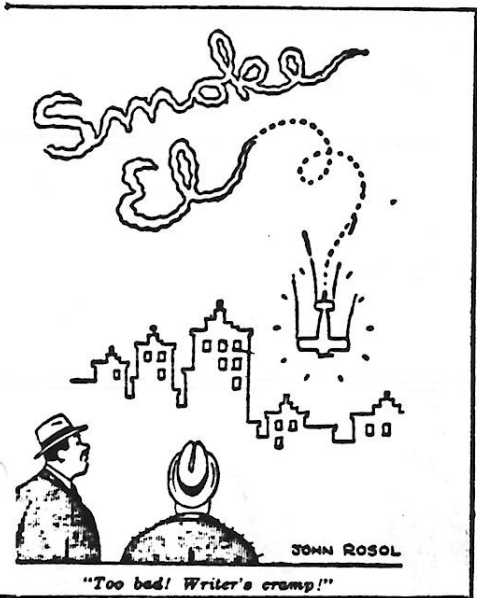
(Continued on page 50)

The Vacuplane

(Continued from page 32)

up and moved to Miami to construct a ship without any wings—with nothing but a cellule lift—and show the world that there was something to this new principle after all.

On his arrival in Florida, he went to the University of Miami and told Ensign Fred H. Given, then in charge of the aviation department, of his hopes and his accomplishments. He asked Ensign Given to utilize the members of the aviation class and the laboratories for constructing a plane with a cellule lift, one that could fit inside an ordi-



Don Gentile's P-51B
 Frederick Castle's B-17G
 Erich Hartmann's Bf 109G-14
 Martin Becker's Bf 110G-4b
 Pierre Clostermann's Tempest V
 Eric Greenwood's Gloster Meteor Mark III (all yellow)
 Francis Gabreski's F-86E
 Peter Carmichael's Sea Fury FB Mk. 11
 Neville Duke's Hawker Hunter F Mk. 3
 Randy Cunningham's F-4J Phantom II

nary garage and have a cruising speed of more than 100 miles an hour. One that would take off in around fifty feet and land with a forward speed of 20 miles an hour. Out of this the X1-3 or Vacuplane was born.

In picking Ensign Given to help him construct such a plane, Mr. Lanier was dealing with a man who had built his first Bleriot ship at his father's farm back in 1910. He was a member of the Royal Flying Corps and the U. S. Navy, and was civilian inspector with the Navy Schneider cup team when it traveled over to England to bring the speed trophy to America.

The Vacuplane does not have wings in the ordinary sense. It has a cellule spread of eight feet nine inches, and a chord of eleven feet two inches. This gives it only 84 feet of lifting surface because of the tapering effect of the cellule. Yet this 84 square feet of lifting surface was sufficient to lift 1,051 pounds gross weight at a takeoff speed of 55 miles an hour when powered with a five cylinder 85 horsepower Le Blond engine.

When this curious looking craft was completed, it was taken out to the All-American airport for a test. Because of the design, and the necessity of working out many details during the construction, there was some doubt if the cellule was sufficiently large to lift the weight. The features which have made the XL-2 an inherently safe ship had been retained but the weight had been reduced and other refinements incorporated.

When Ensign Given crawled into the little cabin, a mechanic spun the propeller and the little craft rushed down the runway. In 75 feet it had attained a speed of 50 miles an hour and the wheels left the ground. Around the field it went, Ensign Given holding it about ten feet off the ground.

Then he rolled down—stopping in 33 feet. Sixteen times he repeated the performance. He found all controls functioned perfectly, but with the lateral control a little too sensitive. But that was a small detail. The cellule had demonstrated its ability to take the ship off the ground. At 50 miles an hour, in an 18-mile wind, the lift per square foot was 11½ pounds!

Ensign Given, in explaining the details of the ship, stressed the fact that the construction of the experimental plane was carried to a radical point in order to prove the theory of the lifting power of the cell.

In his report to the inventor he said: "All control surfaces functioned perfectly and if anything a little too sensitive on the lateral controls. The balance was perfect. The lateral control on the longitudinal axis causes a slight uncomfortable oscillation, but this can be overcome by bringing this control up into line with the cellule and ailerons. This will dampen the controls a bit, and allow a pendulum effect rather than swinging laterally on a longitudinal axis."

Today the ship is back in the labora-

tories with nothing to show that it ever left the ground but the motion picture record. To dampen out the lateral control, the cellule is being widened about two feet and the ailerons are brought up to the outside edge instead of against the fuselage as shown in the picture. A slight change is also underway in the cellule itself, the last three buffers being covered over—a change which Ensign Given expects to give a greater lifting power.

Discs are also being attached at both ends of the cellule to prevent tip loss and, with these refinements, the Vacuplane will be taken aloft to be put through all the stunts which Ensign Given can make it do.

While this little ship shows a remarkable advance since the XL-2 was built and flown in 1930, it is this new type of lift which is the keynote which may bring decided changes in aviation within a short time.

This has been accomplished by producing a new lifting force with a high lift cellule, narrow span, deep chord and open top to evacuate the top cell. The cellule is located well forward over the engine and extends back half way or more over the fuselage. The cellule produces a pendulum effect in the fuselage and performs the function of a parachute in the descent.

The photograph of the XL-2 shows wings in combination with the lift as there was some doubt that the device had the lifting ability claimed for it. Wings can be applied to any plane with a cellule lift, but their purpose is simply one of carrying an extra payload and does not affect the function of the cellule in any way. However, as the theory is based on the lift, it was decided to build a wingless plane. Mr. Given has refined the XL-2 and the theory has been proved in its first flight.

With the refinements now carried out on the Vacuplane, Ensign Given expects the ship to take off in fifty feet at 40 miles an hour, and to land with a forward speed of less than 20 miles an hour inside of 30 feet. The ship will have a cruising speed of 135 miles an hour and is being re-equipped with a 30 gallon gasoline tank which will give it a cruising radius of 800 miles.

However, several months will pass before the Vacuplane is taken out again for flight, for when it takes to the air then Ensign Given wants to call it a finished job. When this stamp is placed upon it Mr. Lanier will take the ship on a tour of the country to be exhibited at air races and expositions.

The specifications of the Vacuplane as it was successfully flown are:

Wing section—Durand No. 13—with slight modifications; gross weight at time of flights, 931 lbs.; span of cell, 8 ft. 9½ ins.; chord, 11 ft. 2 ins.; area of cell, 84 sq. ft.; aspect ratio, 9/11 to 1 (less than one to one); lift per sq. ft. at 50 m.p.h. in 18 m. wind, 11 7/84 lbs.; dihedral and cabin loss not figured.

PHOTO'S
(Continued from page 2)

12. MAXECUTER'S answer next summer to infamous Comsat trees. Sixteen year old John Gaertner and his own design of a CO₂ powered V-1, with pendulum ailerons. We hope to convince John to draw up a set of plans for publication in MAX-FAX.
13. A preview of Hurst Bowers newest work of art - a Fieseler 167 jumbo.
14. Allan Schanzle explains rubber scale at Naval Academy last January to a member of the press. Plane is a Golden Age kit of the Rearwin Speedster.
15. Pat Daily launches his SBU-1 at the Naval Academy.
16. Scott Paisley shows fine form with his Earl Stahl Skua at Lakehurst.
17. Hurst Bowers demonstrates precision measuring technique with his pretty Corbin at the Naval Academy.

Most of us are scale judges at heart; we like to critique the work of others.

A good judge is like a sorceress who dispenses truth.

Sometimes I feel my scale evaluation depends about as much on knowledge as the weather does on weather forecasters.

POPULAR AVIATION

(See page 32)

VACUFLINE XU-III

Daring Adventures
(page 8) With the 95th Squadron

Instruments vs. the Senses
in Flying

Trouble Shooting
(page 17) With the Air Mechanic

NOVEMBER 25

73.070 & vic. The Issue

Falling

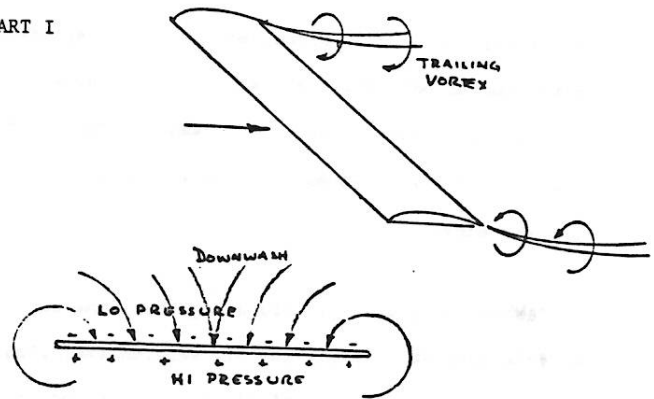
Bud Carson

WINGS 'N THINGS - PART I

Whenever people who share an interest in airplanes gather, whether they are engineers, pilots or model airplane buffs, the subject of airfoils will eventually come up. I know this, because I am "all of the above." And when this happens, there will almost always be as many opinions expressed as there are people present to express them. In this first of a several-part series of articles, I will try to put across some thoughts that are seldom considered in such discussions, in hopes that this may help resolve some of the common differences that frequently arise.

Airfoil characteristics play an important part in the performance of aircraft, but not to the extent that many people suppose. Such characteristics as the variation of lift and drag coefficients with angle of attack, lift/drag ratios, stalling angle, and so forth, are called section characteristics and are usually determined, for full-scale aircraft, in wind tunnel tests where a wing of constant chord and section spans the test section. Almost all published data are obtained in this fashion. Among other things, all the drag measured in such tests is "parasite" drag, i.e., drag that results from the viscous interaction between the wing and the airflow.

When a given section is used in an actual wing, however, the section characteristics become mere pieces to a much larger puzzle. The resulting lift-drag ratio of the wing will depend on many other factors, which primarily include the aspect ratio, planform shape, and twist (washout). In short, the wing does not behave as if it were a "group of sections," but rather something altogether different. This is because there is a natural flow from the lower, high-pressure surface to the upper, low-pressure surface around the tips. When this happens, a trailing vortex system forms at the tips, as shown:



The effect of the trailing vortices is to envelop the wing in a downwash field of its own making. So the wing does not "see" the true direction of flight; rather, it behaves as if it were in a climb, even though it may be flying level with the ground. And climbing requires power. The additional power required for the wing to climb in its own downwash translates to "induced drag," or "drag due to lift," and has nothing whatever to do with section properties. This kind of drag is the price paid for the production of lift, and is added on to the ordinary parasite drag of the whole aircraft.

"All right," you may ask, "What difference can a little bit of induced drag make?"

Well, the answer may surprise you. If an aircraft is trimmed for high speed, induced drag plays very little part in the overall drag picture. But induced drag becomes greater with reduced speed, just the opposite of parasite drag, which always increases with speed. But here is the mind-boggler. For an airplane trimmed for maximum endurance, the theoretical proportions of induced drag and parasite drag are three parts induced, one part parasite. That's right: three-fourths of the total drag should be induced.

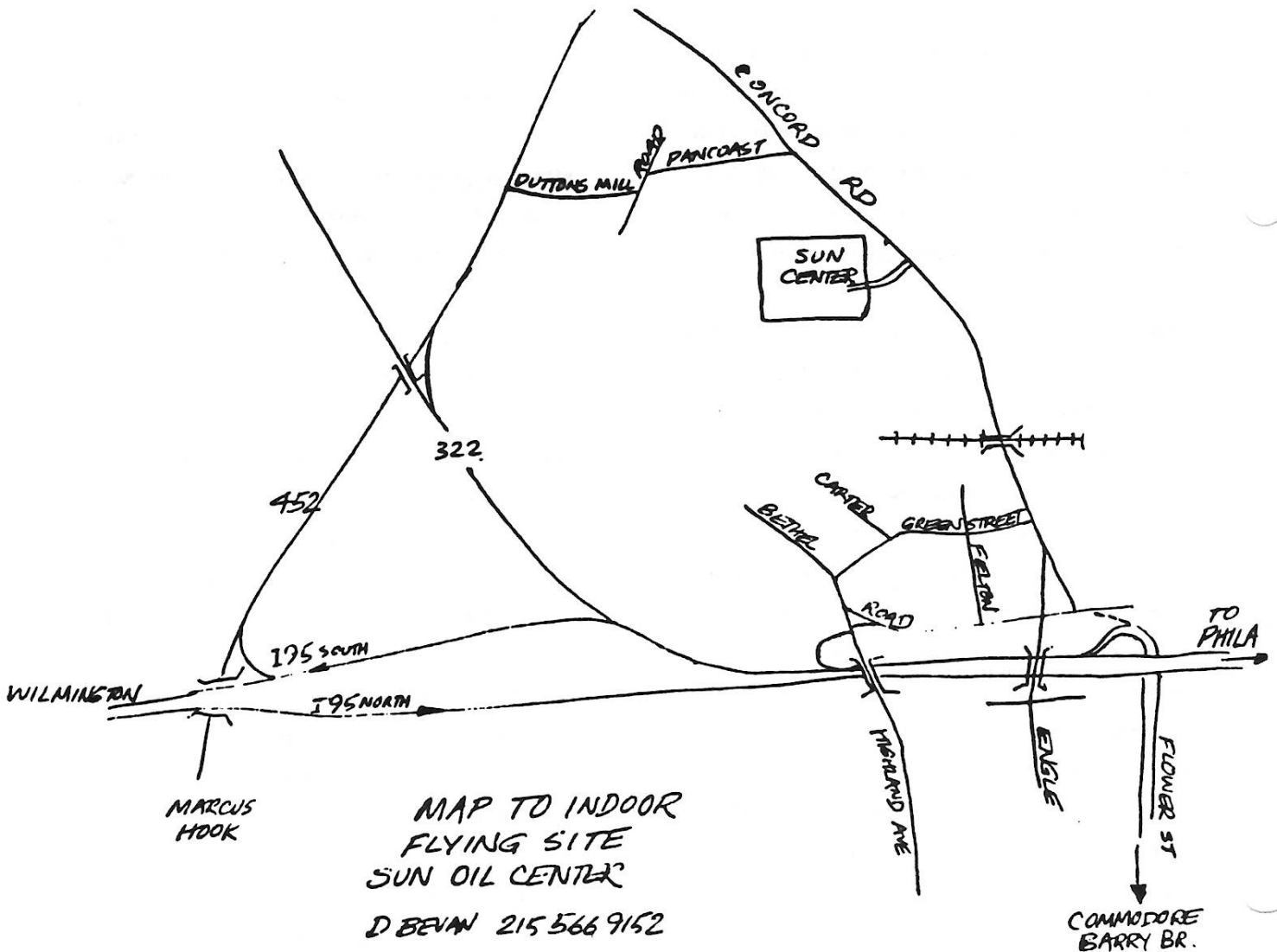
That is not to say that the one-fourth parasite drag is not important. But consider this: even if you have a section that produces an L/D of 20 or so, how important can it be on a scale model when the builder has meticulously added all those

point-gaining struts, wires, machine guns, spreader bars, and so on? These are all excellent drag risers, especially wires. On a heavily braced model, the drag of the wires may well equal the drag of another wing.

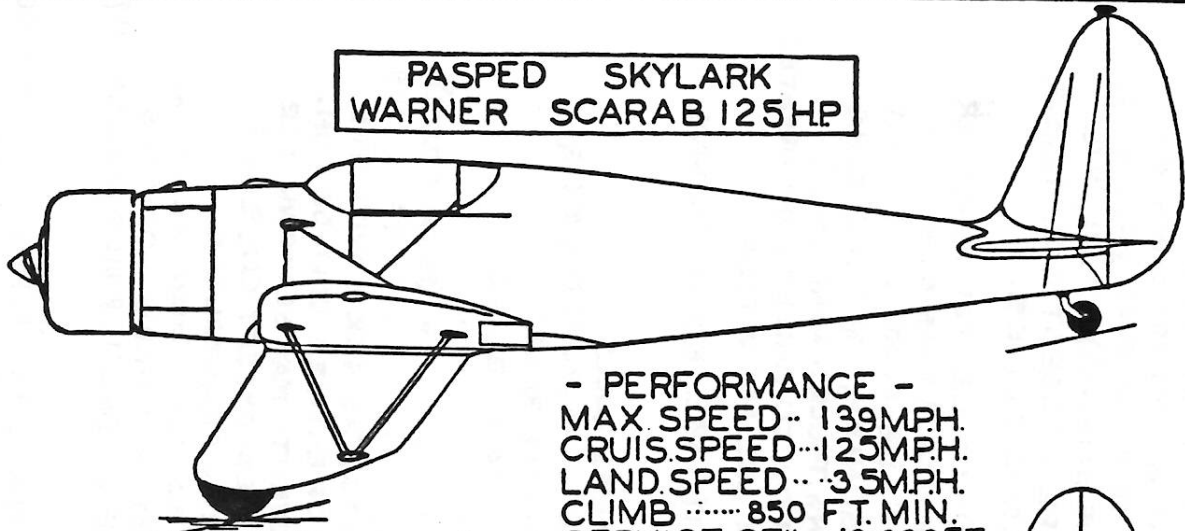
When you add these things together, the net result is that practically any old section that pleases the eye, looks like an airfoil, and is not too thick, will work about as good as any other, at least insofar as a super-scale model, built to a 24" span or so, is concerned. Such models are beautiful to be-

hold, climb, cruise, and descend realistically under power, but usually "self-dethermalize" when the power is expended. If, of course, a model is intended to exhibit most of its endurance in a glide, such as Wakefield, Nordic, and competition free flight models, one should start getting serious about airfoils. But otherwise, the actual section would seem to make little difference.

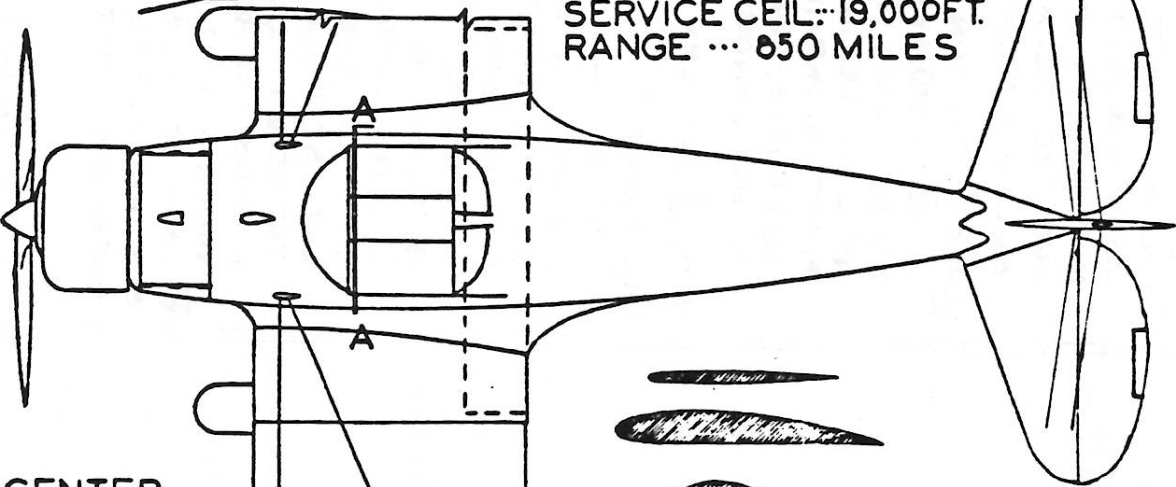
A full discussion of airfoils will be the subject of the next installment. I hope you have all been taking notes, because there will be a short quiz at the end of the period.



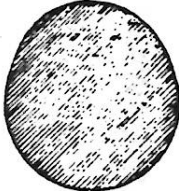
PASPED SKYLARK
WARNER SCARAB 125HP



- PERFORMANCE -
MAX. SPEED... 139 MPH.
CRUIS. SPEED... 125 MPH.
LAND. SPEED... 35 MPH.
CLIMB 850 FT. MIN.
SERVICE CEIL... 19,000 FT.
RANGE ... 850 MILES



CENTER SECTION OF WING IS DURAL COVERED. OUTER WING PANELS ARE FABRIC COVERED. ALL-METAL FLAP UNDER CENTER SECTION

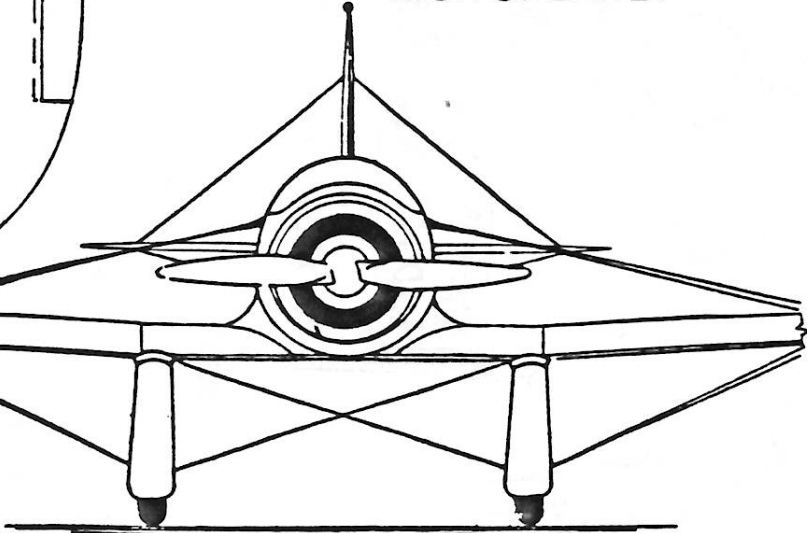


CROSS SECTIONS OF TAIL SURFACES, WING, & FUSELAGE.

TWO-PLACE WIRE BRACED MONOPLANE.



PAUL PLECAN "36"



AN INVITATION

WHAT? A "SWAP FLY"! YOUR ENTRY FEE WILL BE SOMETHING YOU PROBABLY WILL NEVER USE, BUT SOMEONE ELSE WILL WANT. A KIT, OLD MAGAZINE (50's or 40's), A PLAN, RARE DATA, ETC. ETC. ARE SUGGESTIONS. THESE WILL BE AWARDED AS PRIZES.

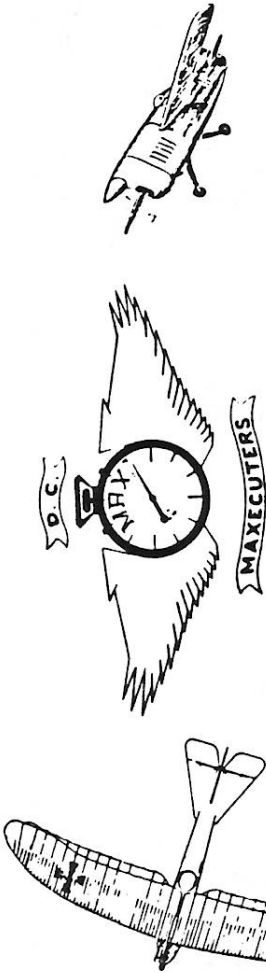
WHERE? THE SUN OIL CO. CENTER, CHESTER, PA (NEAR I-95), SEE MAP. LARGE GYM (SOFT SOLES PLEASE) 125' X 125' FLOOR WITH ABOUT 43' CLEAN CEILING. WARM, TIGHT, BUILDING; PLENTY OF PARKING, TABLES AVAILABLE!
OUR HOSTS, SUN OIL CO., WILL BE INTERESTED IN THE TURNOUT AND ACTIVITIES.

WHEN? JANUARY 17, 1982; NOON 'TIL FIVE

WHAT EVENTS?

1. INDOOR H.L.G. - AMA RULES
 2. " PAPER ROG - 30" WING, PLASPROP, R.O.G.
 3. NOVICE PENNY - AMA RULES
 4. PEANUT SCALE - F.A.C. RULES
 5. F.A.C. SCALE - " " (PEANUT SIZE)
 6. CO₂ SCALE - " " (BIPLANES ONLY)
 7. WW I COMBAT - " " (BIPLANES ONLY)
- OF THESE EVENTS, THE 4 OR 5 WITH THE LARGEST FIELD OF ENTRIES WILL BE RUN. THE REMAINING EVENTS MAY BE FLOWN FOR FUN - NOT FOR PRIZES - EXCEPT CO₂ SCALE WHICH WILL BE RUN REGARDLESS.
PLEASE JOIN US SO THAT SUN OIL CO CAN SEE OUR INTEREST AND NEED FOR THIS EXCELLENT SITE. CONTACT: - DONALD HOOT (215) 456-4357

NOTE BY EDITOR: The CD has told me that the CO₂ scale event may be open to any wingspan, so bring 'em all. I suggest a 3cc tank for the regular single cylinder engine, and a 2cc tank for the peanut engine.



ANNOUNCE

THE 8TH ANNUAL CAPITAL INDOOR SCALE AIRCRAFT CONTEST

MARCH 20 & 21, 1980
ANDREWS A.F.B. - NAVY RESERVE HANGAR

EVENTS

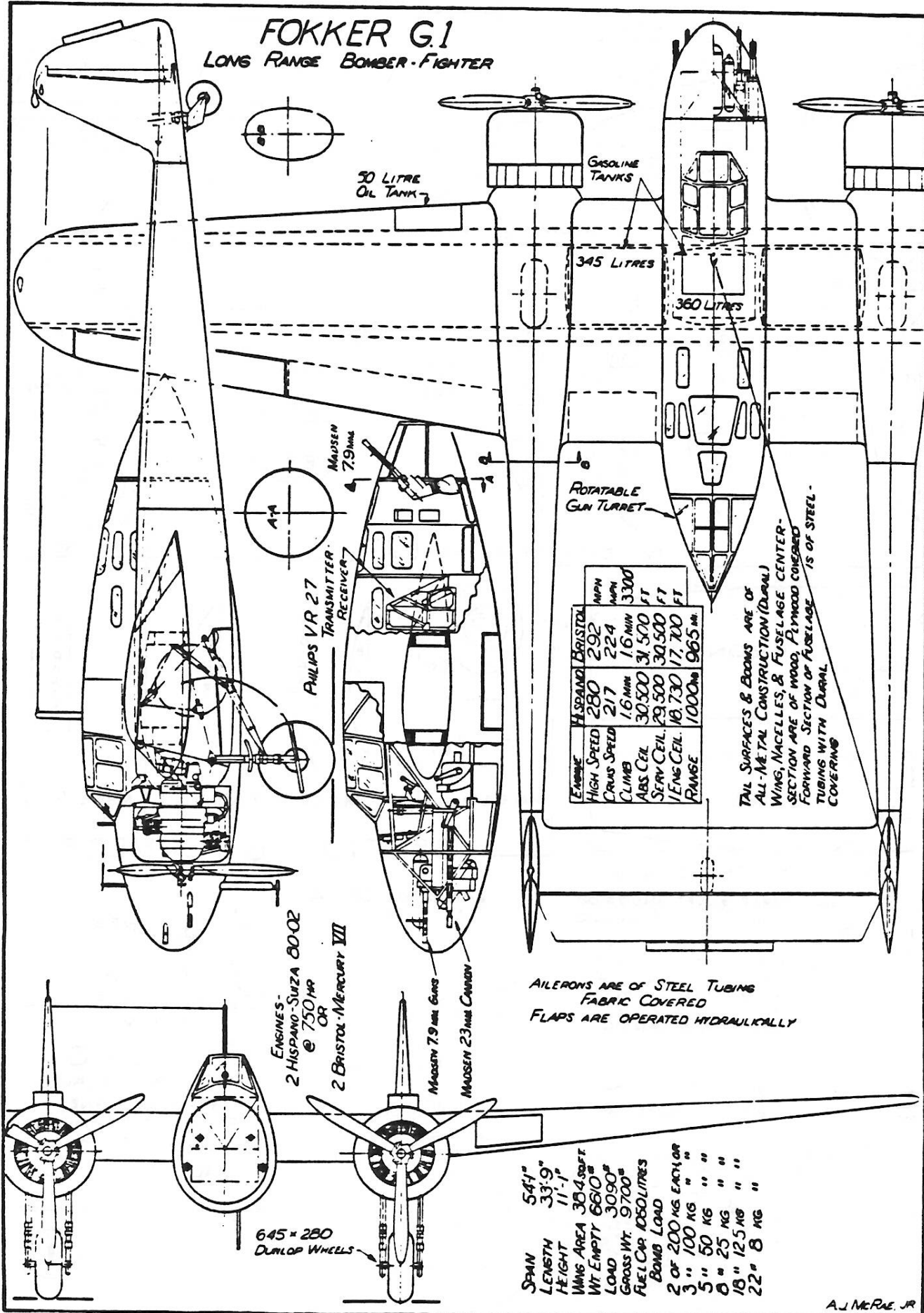
SATURDAY MARCH 20,		9:00 AM to 5:00 PM
F.A.C. SCALE	Judging starts at 1:00 PM.	
PEANUT SCALE	Judging starts at 2:00 PM. Mooney rules	
	10 second bonus for ROG.	
WW-I	Mass launch, biplanes only.	
GOLDEN AGE	Mass launch, any plane built between	
	1920 and 1935, and any non-military	
	aircraft built between 1935 and 1939.	
NAVY SCALE	Mass launch, any Navy plane, any Navy,	
	but must be in Navy colors.	
SUNDAY MARCH 21,		10:00 AM to 2:00 PM
NO-CAL	F.A.C. rules	
NOVICE PENNY	AMA rules	
BOSTONIAN	14 gm minimum, max wing span 16 in.,	
	max wing area 48 sq in., max length	
	14 in. (excluding prop), max prop	
	6 in., cabin box 3x2.5x1.5 in.,	
	windshield or cabin windows required,	
	R.O.G.. charisma points 0 to 10.	

ENTRY FEE: \$2.00 per event, \$5.00 maximum. Juniors (under 16)
\$0.50 per event, \$1.00 maximum.

CD: PAT DAILY
14908 Rocking Spring Dr.
Rockville MD. 20853
301 450-1298

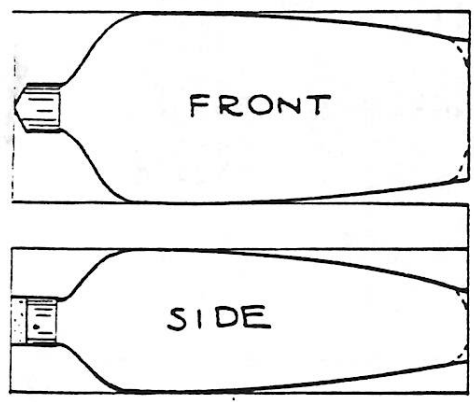
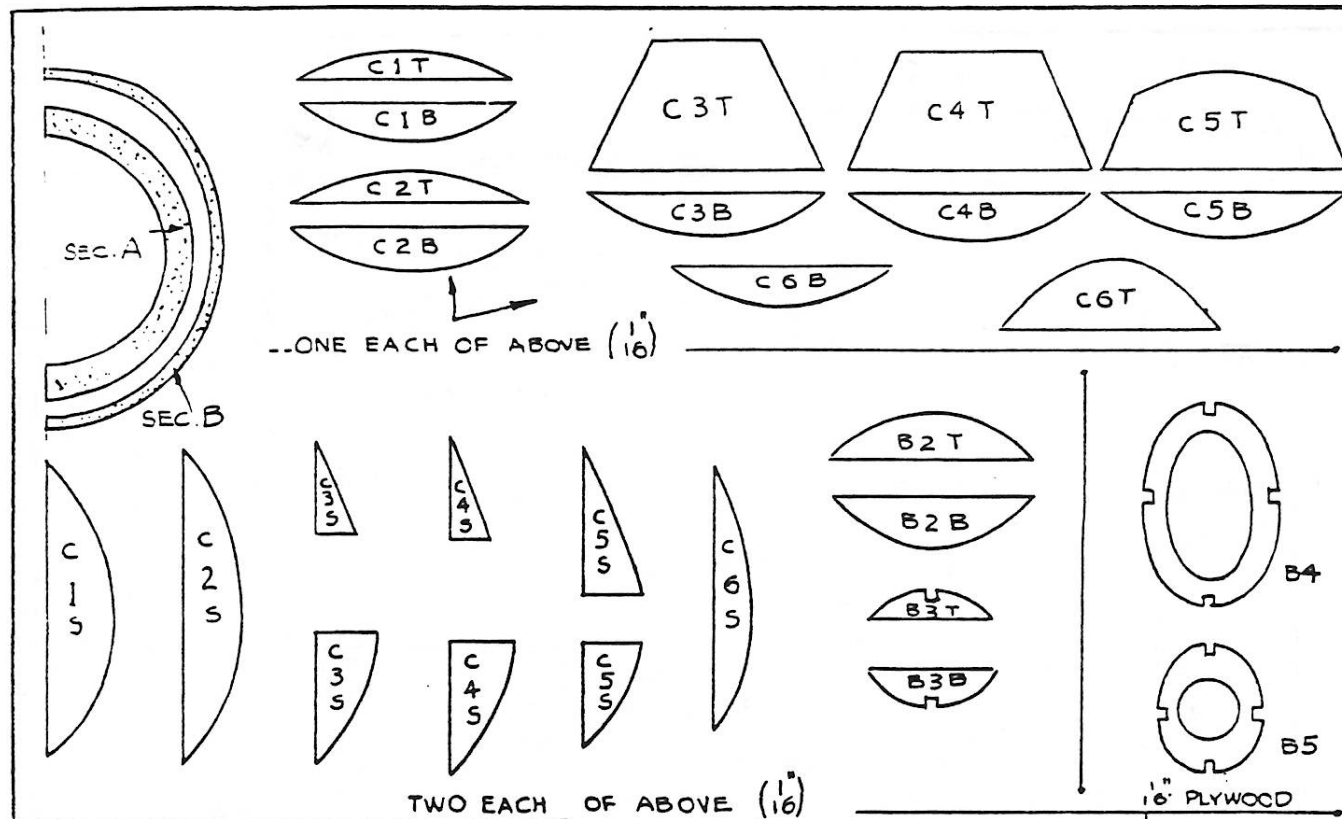
FOKKER G.1

LONG RANGE BOMBER-FIGHTER

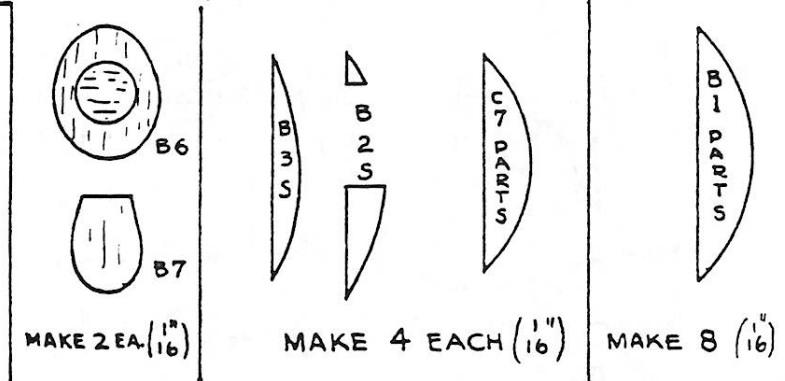


COLOR: A painting on the cover of the April 1937 issue of AIR TRAILS shows the Fokker G-1 to be all "U.S. BLUE" (close to the color of blue in our flag) with red and white stripes on the wings, rudders, and cowls. See drawing on cover of this issue. Additional photos can be found in AERO ALBUM, Summer 1970, and AIRPOWER, Jan. 1982.

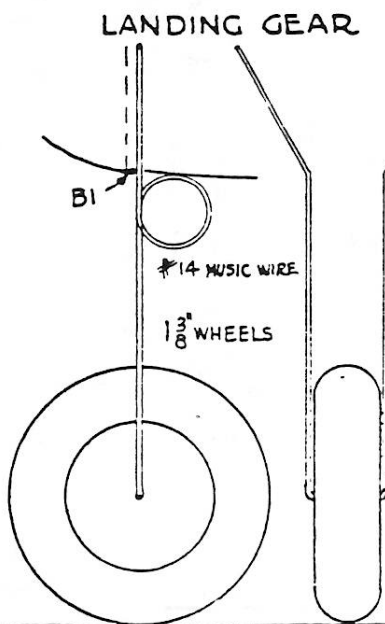
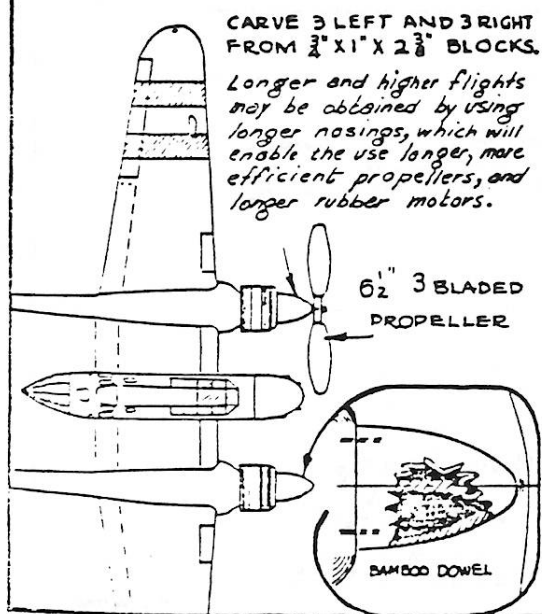
A.J. McRAE, JR



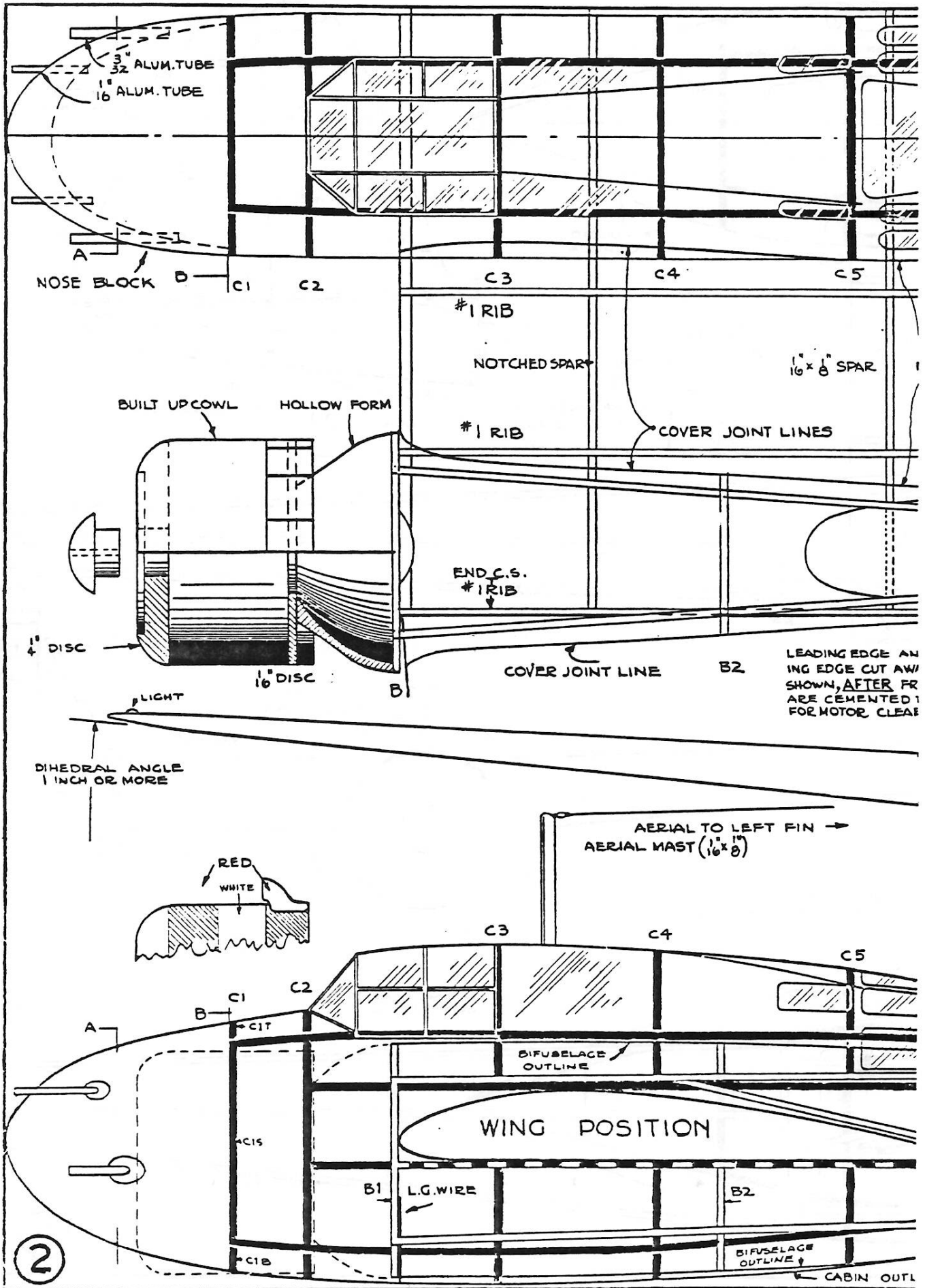
FLYING BLADES BLANK

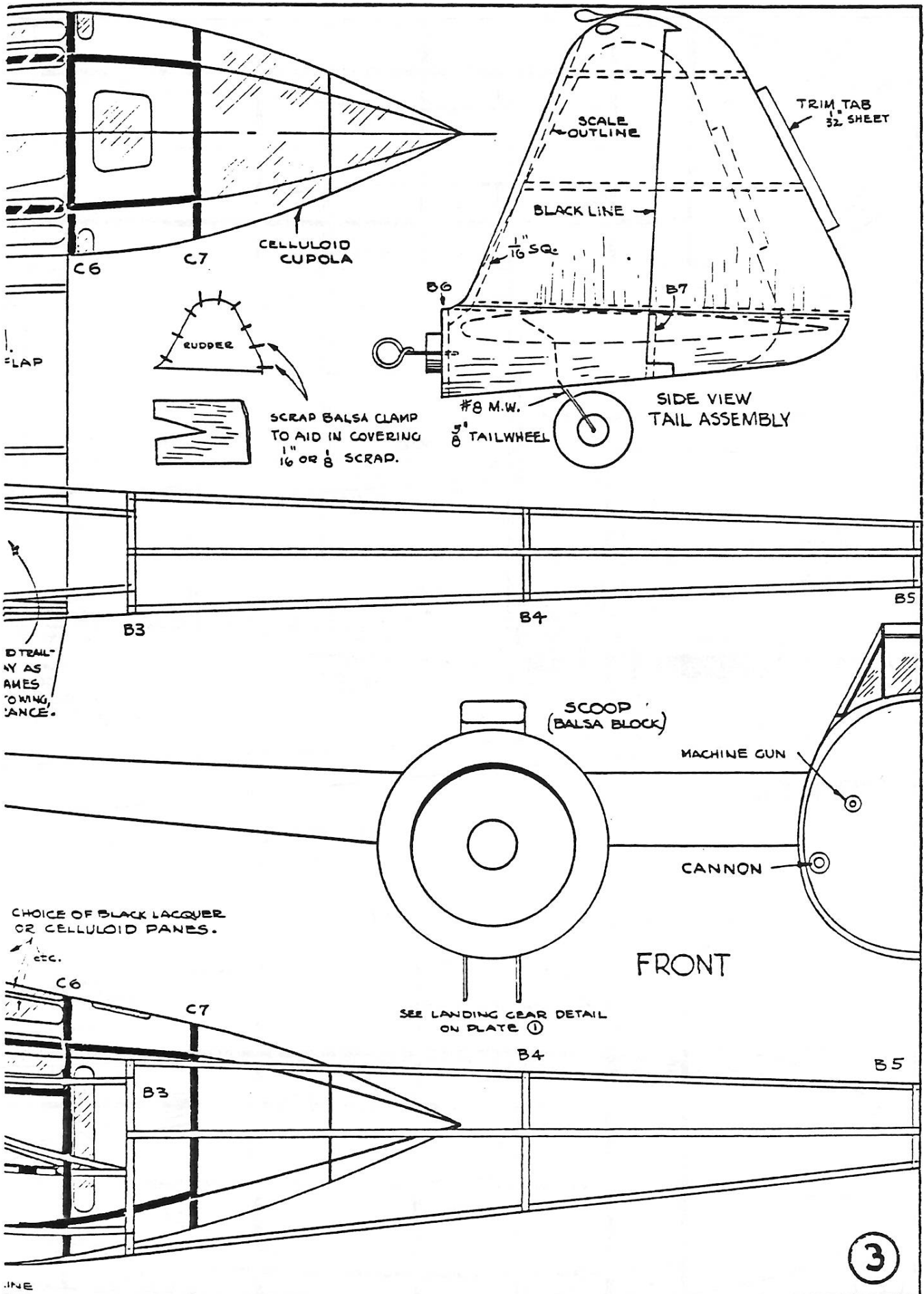


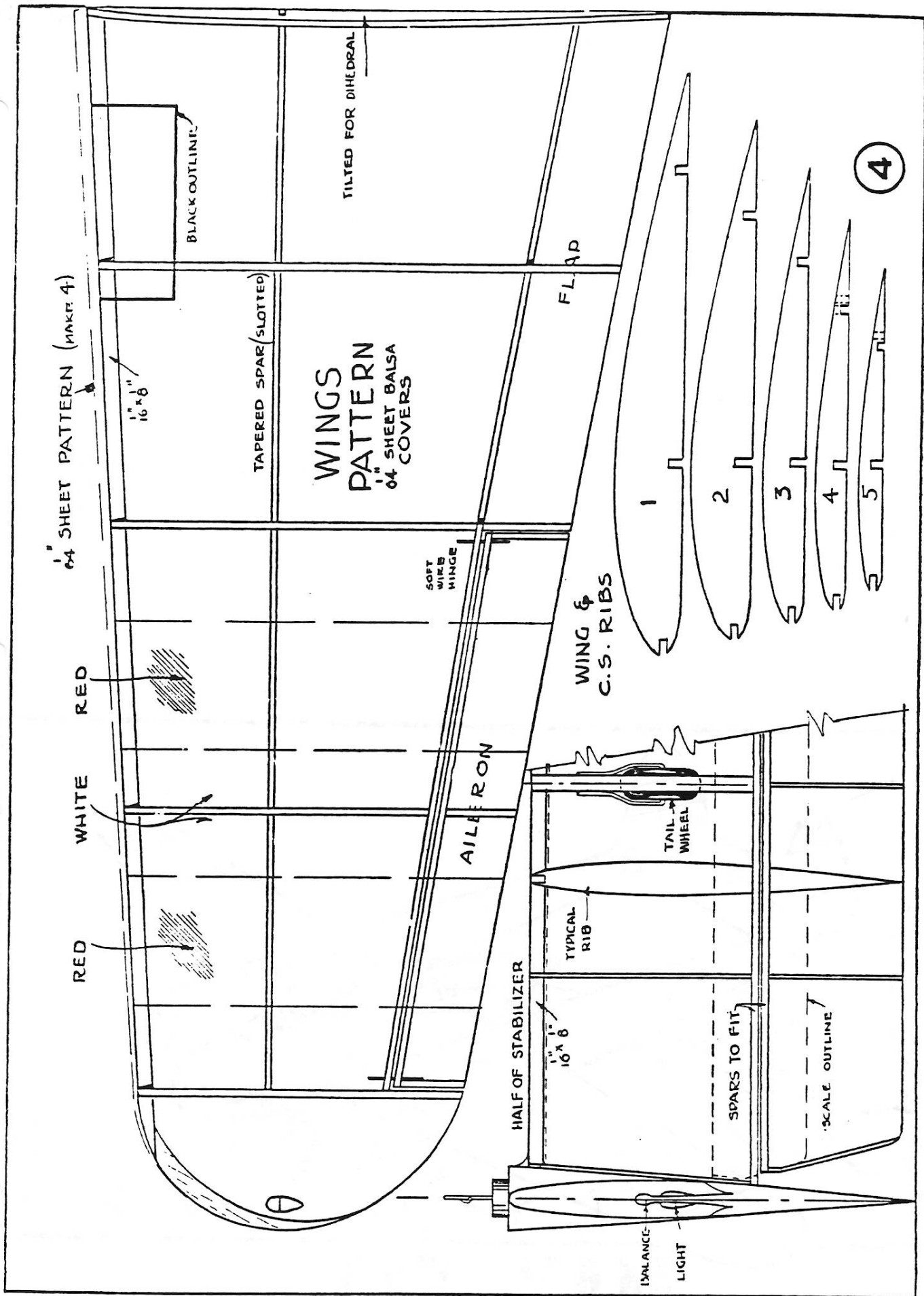
SECTIONS & FORMERS



BILL BARNES
AIR TRAILS
 FLYING SCALE MODEL
of the
FOKKER G.1.
 BIMOTOR BIFUSELAGE:
 ATTACK PLANE,
 RECONNAISSANCE,
 & LIGHT BOMBER.
 SCALED TO $\frac{1}{2}$ " = 1'-0"

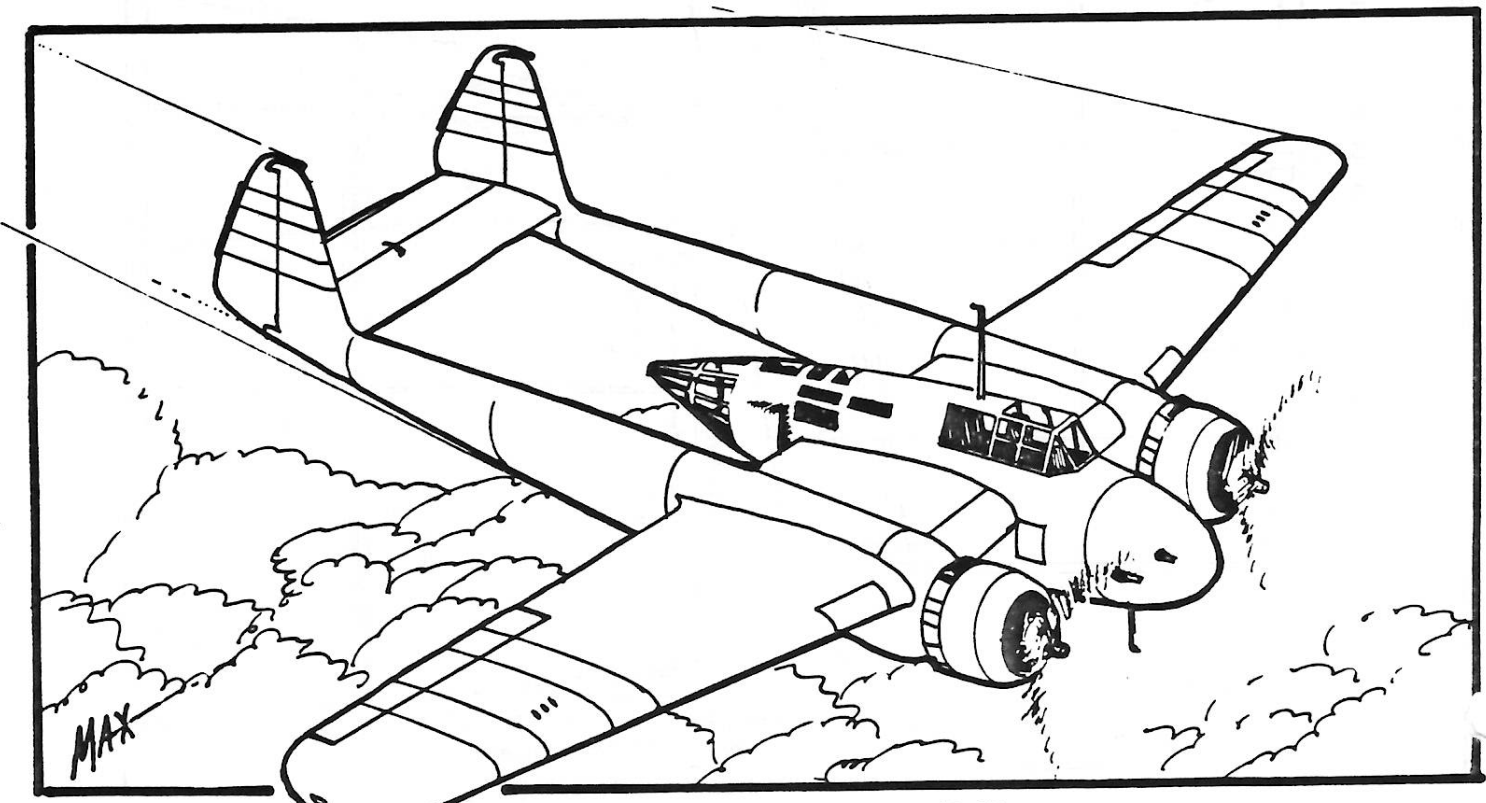






1st Class

MAX-FAX
8311 Exodus Dr.
Gathersburg MD 20760



JAN FEB 1982

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