CROSSWINDS

No. 149

TEN CENT EXTRAVAGANZA!

Currie Wot A classic 1937 British biplane updated in the post war era.

Lockheed Altair Part of the famous single engine Lockheed family from the Golden Age.

Avionette Canard AW6B A mysterious Belgian aircraft from the 1940s.

Grumman F6F Hellcat Needs no introduction.

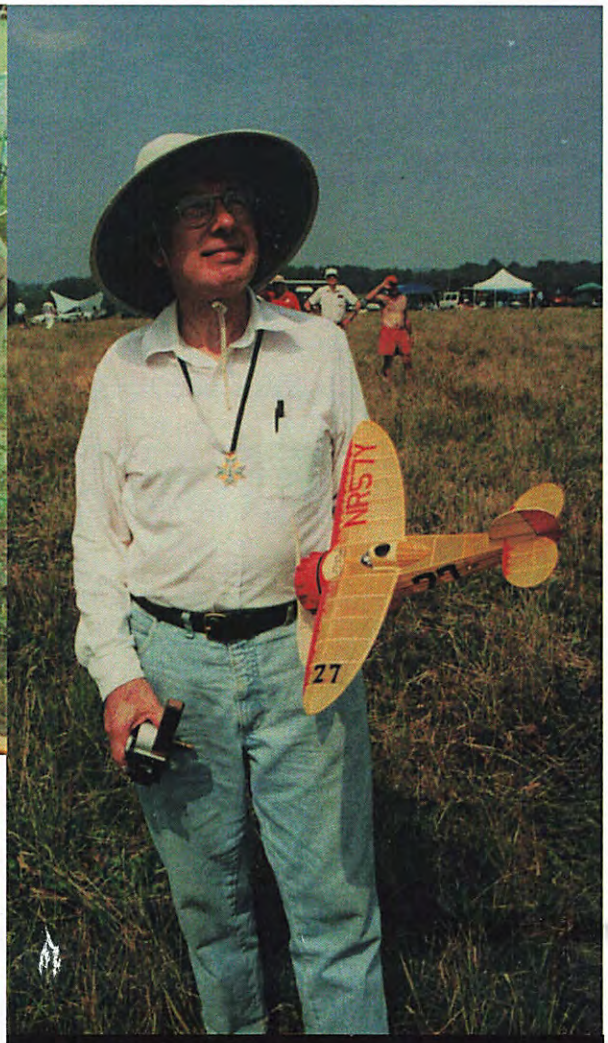
Cleveland Free Flight Society

Russ Brown
4909 N. Sedgewick
Lyndhurst, OH 44124



44094*8476 R001

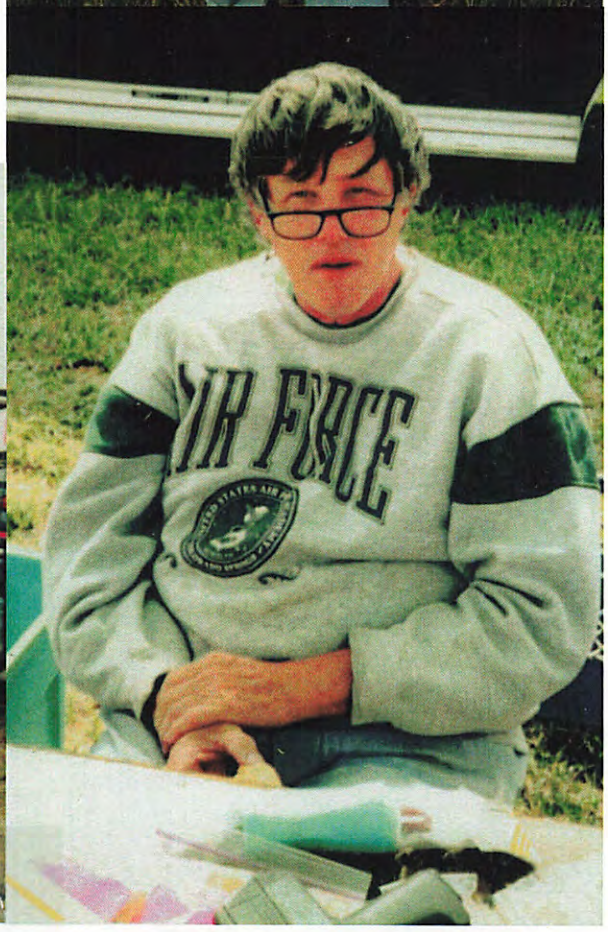




CFFS Salute! Above: We're not sure of where or when this photo was taken, but it's a great shot of our leader Russ Brown in action with FAC officials Lin Reichel and Vic Didelot. Probably conferring over some fine points in Scale judging; a task that Russ performed with distinction for many years. Right: Our Ace, Steve Griebling is likely watching one of his models disappear over the horizon before he launches his Cessna. Below right: Lee Campbell was the mover and shaker that got the Cleveland Free Flight Society going fifty years ago. Thanks Lee! Below left: Irene Zand with husband Mike getting ready for the Thompson Race mass launch event. Mike served in many capacities as a club officer over the years. He was the Secretary/Treasurer for so long that we all thought it was a permanent position! Irene was always there to lend a hand both on and off the field.

We wouldn't have a club without the efforts of these folks. Pics of more of our volunteers and stalwarts are on the inside back cover.





Forty-four years is quite a run.

The first issue of Crosswinds came out in 1973, although there was a CFFS club newsletter put out by Lee Campbell that preceded Crosswinds for a while. The first official Cw issue featured a reprint of Sherman Gillespie's "Yard Bird" from a 1934 Model Airplane News, and information about the new Embryo Endurance event in the FAC. The publication schedule varied over the years depending on the time and talent available. At one point, the enthusiastic crew was cranking out an issue a month! Regardless of the production rate, they made Crosswinds into one of the very best newsletters anywhere in the Free Flight world.

The list of notables who put in all that effort is too long to include here, but some of the guys are clear stand outs. Dennis Norman, Gordy Roberts, Mike Zand, Dave Pishnery, Steve Greibling, and Russ Brown have all had a turn at the editor's desk. In years past, Dennis was probably the most prolific of our designers, while more recently, Steve has taken over the task of drawing up loads of beautiful plans for us. Russ is the guy who made it all happen issue after issue for many years. He inspired the contributors, kept the subscription list, handed out the Dreaded Red X, cobbled together the documentation, arranged the printing, got everything assembled, addressed, stamped and on its way to your mailbox. And we'd be remiss if we didn't mention Larry Mzik, the guy who did the printing for us. Thanks to all of these fellows, and the many that weren't mentioned by name, we are the heirs to a legacy that has enriched the modeling community.

My collection of back issues is yellowing, and some of the staples are rusty, but I won't part with them. They still provide a rich trove of terrific plans, documentation, and a whole lot of modeling joy.

You probably noticed that it's been a long while since the last issue. It might be even longer until the next. We're not saying that this is definitely the end of the line for Crosswinds...but it very well could be. Our merry group of gumbanders has dwindled over the years. Printing and distribution costs have soared while the internet has made it easy to get plans and documentation with the push of a button. The era of the paper newsletter seems to be drawing to a close. So if this is going to be the last one, we wanted to go out on a high note. Hope you enjoy it.

We're dedicating this issue to Russ Brown, editor extraordinaire, FAC Hall of Famer, and all round good guy. From the bottom of our hearts, *thanks Russ*!

In this issue - Dimers galore!

It took me a long time to get into Dime Scale models. I was born too late to have any nostalgia for them, and when I started flying with the FAC, I had a long list of bigger modeling projects that I wanted to do. There were two separate events for Dime Scale back then. One for "original" ten centers, and another for new designs based on the old concept. I found it confusing and simply stayed away from the events. Once the powers-that-be simplified the set up, I gave it a try. I was hooked! After years of controversy and many revisions, the Dime Scale rules gelled, and the event is flourishing.

I love the fact that a guy can design a "sorta scale" model and get it into the game with minimal fuss. It's a great way to handle a lot of those subjects that I know I'd never get around to if they had to be done up as proper Scale models. They can be built mighty light, and they fly like stink!

When it comes to designing a "Neo Dime" scale model, I like to keep the original 1930s concept in mind... They are *not* Scale models that just happen to have sixteen inch wingspans. There is more too it than that...or rather, much *less*. It's modeling minimalism! I try to approach the design process like the fellows at Comet did long ago. Even in 1935 ten cents wasn't a whole lot of money. The guy who sold it retail had to make a penny, there were shipping costs to get it to the store, a box to put it in - complete with a printed label. Somebody got paid to put the stuff into that box: a plan, printed sheet wood, some balsa sticks, a balsa prop blank, tissue, wire for the prop hook, and when it was all done, there had to be a penny left over for profit. That doesn't leave a lot of wiggle room! It's a sure thing that the fellows that ran the kit factories weren't putting any more stuff in that little box than they absolutely *had* to. So I don't put anything into my Neo Dime that I don't absolutely have to. The trick is in taking some liberties with the scale outlines to keep things simple, while making *sure* that the ship still looks like the aeroplane you've decided to model.



The Lockheed Altair in this issue comes pretty close to that ideal. The lower fuselage cross section has been squared off, and there isn't much wood in the whole thing. I think it captures the look of the Altair in that minimalist way. You can kick it up a notch by wrapping the cowl with some 1/32" sheet. I didn't.

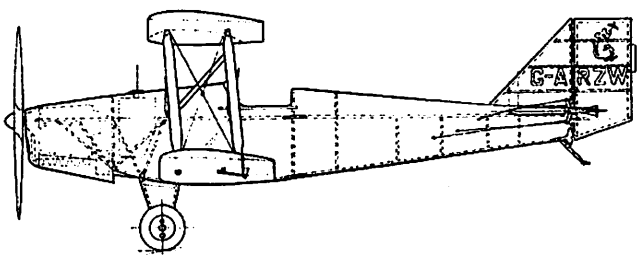


The Hellcat probably stretches the dime concept a bit. Squaring off the lower rear fuselage wasn't a good option on this one. It very abruptly stopped looking like a Hellcat without that shape. I guess I blew the company profits when I added those lower formers, but I'll let them take it out of my bonus at the end of the year. It was worth it. Many of the fighter aircraft from WWII were kitted as dimers. The Grumman F6F needed to be added to the list. Clive Gamble built the first one off of this plan, and found that it flies well indoors on a 6" Ikara prop, with a 30" loop of 3/32" Super Sport. Outdoors, it takes a similar amount of 1/8" rubber.

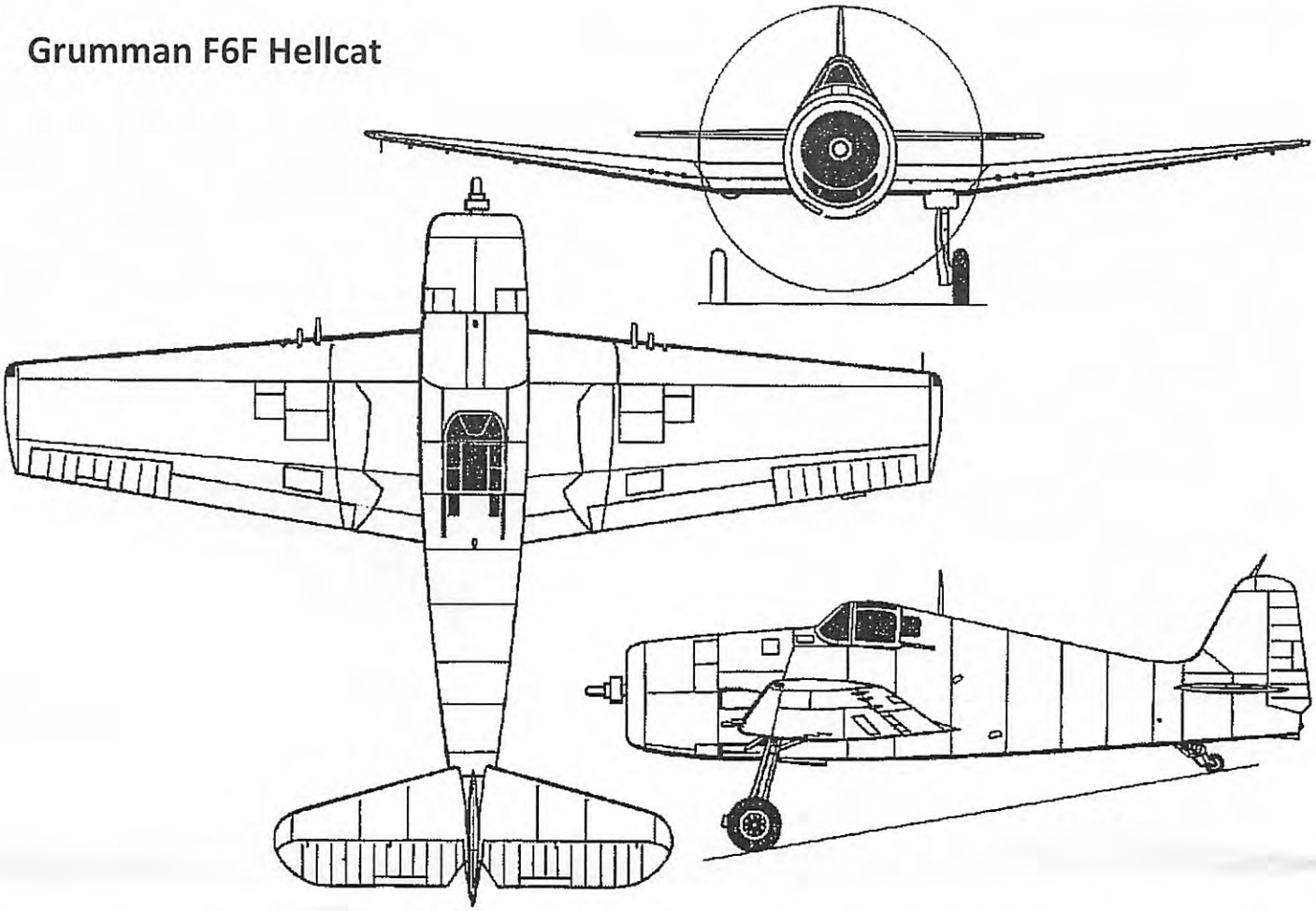
Howard Koverman came up with a wacky/fun canard from Belgium. If you're looking for something out of the ordinary, this little bird is for you. Howard's prototype flies a treat.

Dave Pishnery has gotten into the Ten Cent game with a British classic. It seems that the designer had model aeroplane builders in mind when he dreamed up the Currie Wot. Dave's version builds up into a lightweight biplane that looks "just right" for Free Flight.

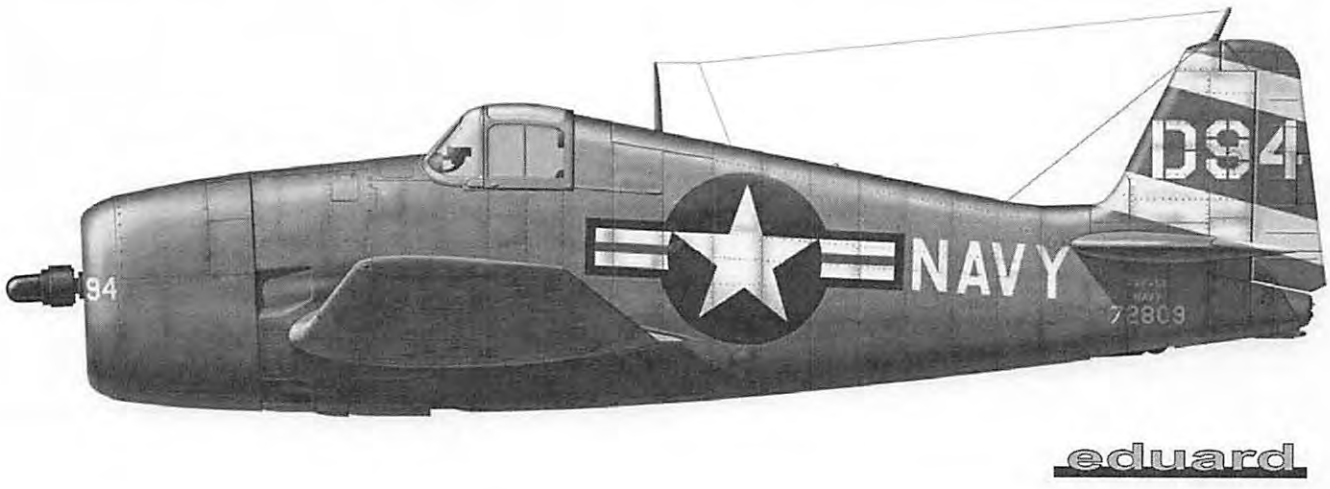
See you on the flying field! Wingnut



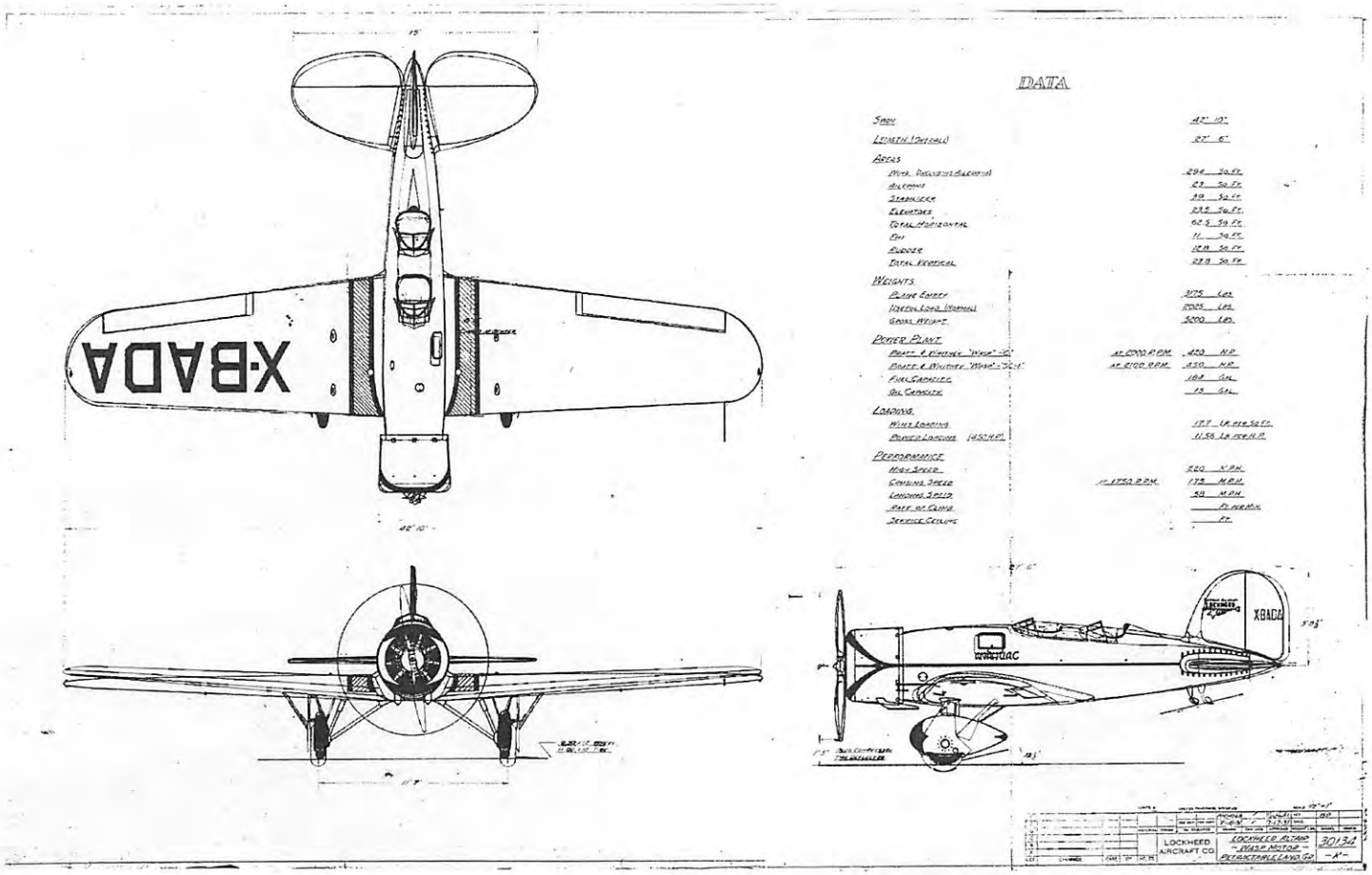
Grumman F6F Hellcat



Not much point in spilling a lot of ink on this ship. It's one of the most successful and best known fighters of the Second World War. It's also a pretty good set up for a Free Flight model. For the dimer version, cover it in blue tissue and put the white stars in the right places and you're good to go. If you want something that's easier to find in the weeds, consider one of the post war test ships. These were used in all sorts of experiments. Some were converted to radio control target drones. They were often painted in high visibility colors. I found a pic of one that was pink! The yellow one on the cover is a target tug. The target drone below is overall orange, with white markings. Note that the national insignia carries the post war red stripe on the bar.



Grumman F6F-5K Hellcat Chincoteague NAS radio controlled drone Virginia 1949



The Altair plan is based (in that Dime way) on the drawing above. If you look closely you'll see that it shows both the Altair and Sirius superimposed. The single engine Lockheeds all shared the same fuselage and many other components. Air Express, Vega, Explorer, Sirius, Orion, and Altair were birds of a feather.



Some of the Lockheeds flew in more than one configuration during their careers. NC-13W, the subject in our plan, is one of those. It began as a Sirius, and was later converted to an Altair with retracts although it kept the open cockpit set up. Later on, it had an enclosed canopy added. This didn't look like the low profile factory job. It was a bigger, boxier greenhouse. NC-13W apparently wore several paint jobs, but regrettably, no documentation for the colors has yet surfaced. You can use these photos to come up with your own interpretation.

You can also modify the plan to create one of the other versions. Add a canopy and make it into one of the better known Altairs. Or add a fixed undercart and make it into a Sirius. There's a famous Sirius on floats too. It belonged to some guy named Charles Lindbergh.

If you modify the plan to another version, be sure to send a copy to your favorite newsletter editor. Those guys love that kind of stuff!





CURRIE WOT in the Air

No. 116 OF THE SERIES

By MARK LAMBERT

THE Hampshire Aero Club is now well launched in the aircraft designing and building business. A few years ago Mr. J. R. Currie, the club's maintenance engineer, revived his little Wot single-seat biplane design and Mr. John O. Isaacs undertook the task of building the first post-war Wot. By September last year this machine, registered G-APNT and powered by an Aeronca J.A.P. 35 h.p. flat twin, had obtained its permit to fly. It was described in *Flight* for December 12, 1958.

Plans were made to build a batch of six Wots to sell at approximately £600 each; and a set of floats was prepared for a conversion to "Wet Wot" standard. Practically no really cheap engine of the right power was available, but a second-hand Walter Mikron 60 h.p. in-line engine was obtained from Czechoslovakia and opened up the possibilities of a quite exciting "Hot Wot." The Mikron and floats were briefly attached to the first Wot, but the aircraft was bought by Harald Penrose of Westlands before "hot and wet" trials were made.

For several weeks now, the second Wot—a hot one with the Mikron engine—has been flying from Eastleigh, and I went down last week to fly it (only a matter of minutes before they undid some bolts and attached the floats in readiness for seaplane trials).



Left, Mr. J. O. Isaacs, constructor of the Currie Wots

Right, the writer gives scale to the Currie Wot which is smaller than other pictures suggest. Empty and gross weights are 520 lb and 740 lb "Flight" photograph

It seems to be a British national pastime to rebuild old vehicles of all kinds, but when applied to aircraft I think it is almost always retrogressive. It may save the cost of initial design and it may provide a very cheap and simple aircraft, but the amount of work still required to meet modern airworthiness requirements, especially for a C. of A. as opposed to a Permit to Fly, usually calls for a series of tests far more thorough than were ever contemplated at the time of the original design. The exercise is seldom very satisfactory from the point of view of performance.

The Mikron-powered Wot, as I flew it, comes very close to proving an exception to this general rule. The very antiquity of its design has produced real dividends in stark simplicity and it must be quite one of the toughest aircraft of this size in existence. It is claimed that it can take 6g at 140 m.p.h., which makes it almost more than aerobatic. Above all, its handling characteristics are viceless, as far as I could see, and remarkably pleasant.

The tidy little Mikron with its metal propeller makes a smooth and tractable powerplant and uses less than 3 gal/hr from a ten-gallon tank in the fuselage. The fabric-covered wings have pronounced dihedral but are not staggered because it was originally intended that they should fold. The aerofoil section is Clark YH and ailerons are applied to the lower wings. The angular, cantilevered tail surfaces are simple, fabric-covered structures, the tailplane being thick and stoutly built to withstand manhandling. Two wire-braced, U-shaped struts form a crude but simple support to which the main undercarriage axle is lashed with generous lengths of bungee. The tail-skid has no steering.

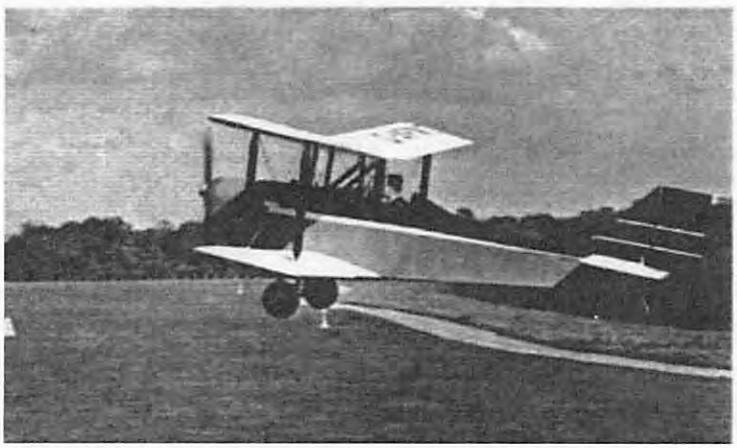
I inserted myself into the cockpit and fastened the Sutton harness (personally, I loathe the discomfort and apparent insecurity of Sutton harness, although I can think of less safe devices). The cockpit fits snugly up to shoulder level with a tiny windscreen to protect the eyes, leaving the hair fully exposed to slip-stream. I flew without headgear and would gratefully have settled for a leather helmet or a larger windscreen, particularly when petrol flowed back on to my head under negative-g conditions. The steering on the ground was achieved purely by bursts of throttle against deflected rudder, but it proved adequate when running before a 15 kt wind. Noise level was reasonable.



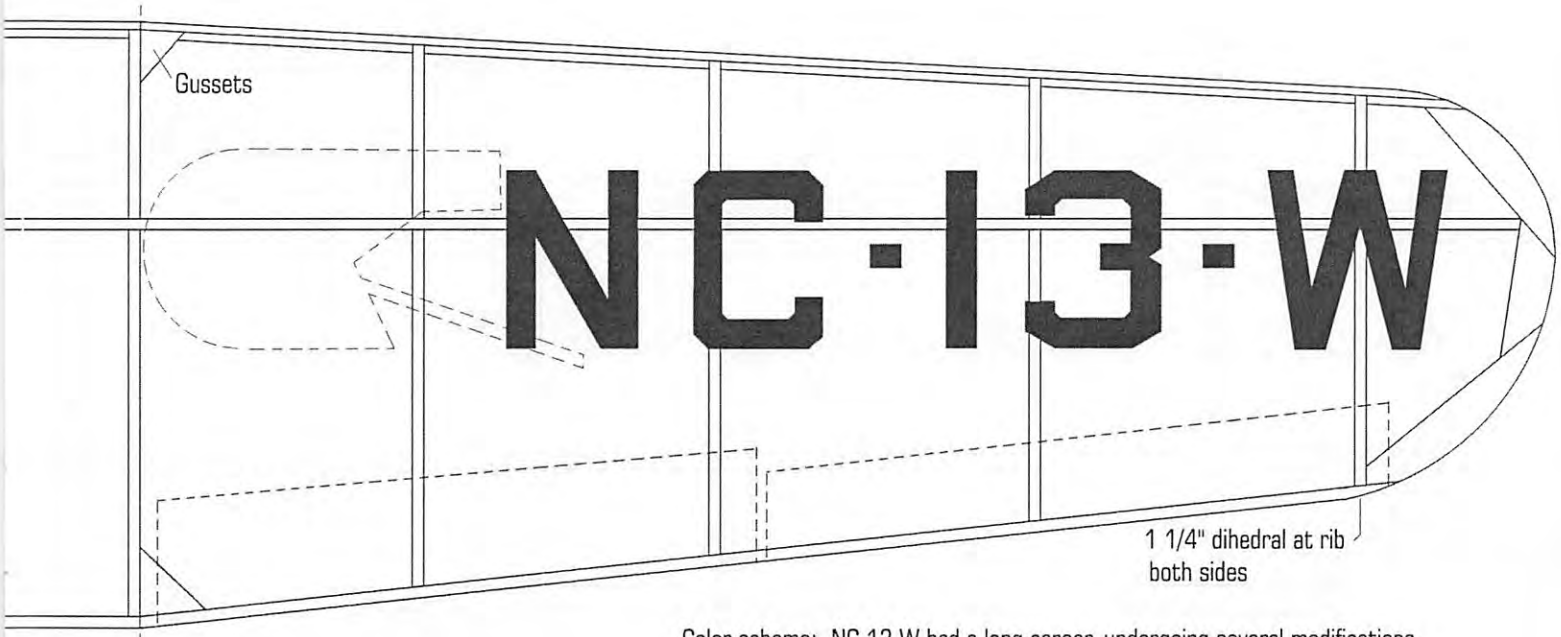
Take-off, dead into wind, involved virtually no swing and the Wot flew off at about 40 m.p.h. I had to concentrate to hold the 50 m.p.h. climbing speed, but it produced a steep climb which I later measured as 45 sec for 500ft—about 670ft/min. Level speed with a conservative throttle setting produced a steady 81 m.p.h. and full power brought speed rapidly to the vicinity of 90 m.p.h. At cruising speed, control harmonization was very pleasant, the ailerons in particular having no apparent friction and centring immediately to provide neutral lateral stability. When I applied about 20 deg bank and left the Wot to itself, it wound up fairly rapidly into a steep spiral. Opening and closing the throttle with the stick free produced only small trim changes, the strongest reaction to change in speed and power being directional.

The ample biplane structure gave a great feeling of solidity and security when looking forwards, but a glance over the tail was like looking out of a sixth-floor window—a typical biplane characteristic. The power-off stall came at a fraction under 40 m.p.h. with good buffet warning and resulted in a steady dropping of the right wing and nose. On the first stall I held the stick hard back and the Wot "went downstairs" to the right. In several subsequent stalls it wound up into a steep spiral dive, but showed no tendency whatever to spin. At full power, it hung on the propeller in a slight climb down to little more than 30 m.p.h. and then broke decidedly into its spiral dive. Throttling back in a steep turn I pulled hard back and the Wot eventually rolled slowly into a turn the other way after juddering decisively at 58 m.p.h. In approaching the power-off stall and pulling the nose up to maintain height, speed dropped off more and more rapidly and the stick came back in the same way, producing a stall just as the elevator reached the end stop a very short time after passing 50 m.p.h. This indicated a high rate of sink below about 45 m.p.h., of which I made good use when approaching to land. The best speed for this is 50 m.p.h., but both slowing-down and steep side-slips compensated for the absence of flaps. Control during approach was excellent and the round-out could be precisely judged. There was ample elevator to touch down tail-skid-first. The wide-track undercarriage gave a steady, comfortable ride.

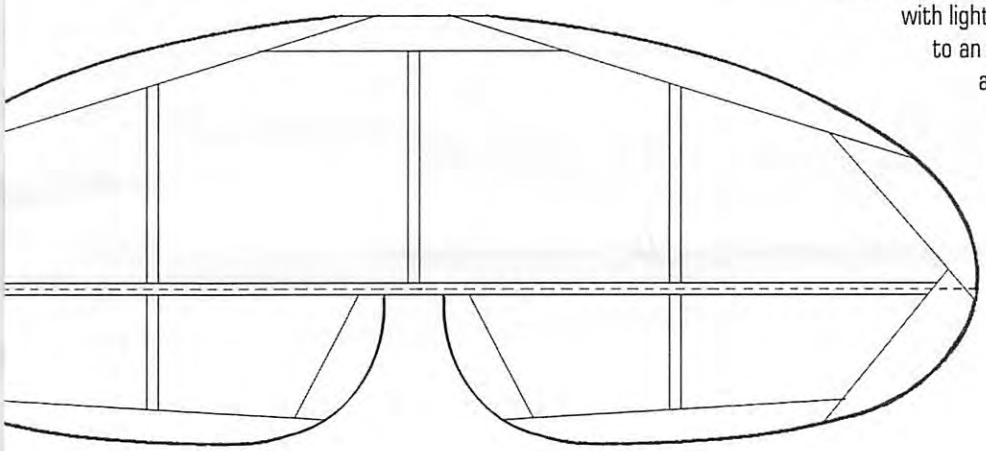
The Wot has obvious aerobatic capabilities and sufficient power for this purpose. Control is precise, although for Lockheed Trophy-type manœuvres it should have stirrups on the rudder pedals, some way of keeping fuel off one's hair and, of course, an inverted-running carburetter system. There are plans for a Wot with a much shorter nose and tail and staggered wings and this might make an even better aerobatic aircraft.



V. H. Bellamy, Hampshire Aero Club manager, flying the second Currie Wot. He has test-flown both machines. The Wot's span and length are 22ft 1in and 18ft 3½in

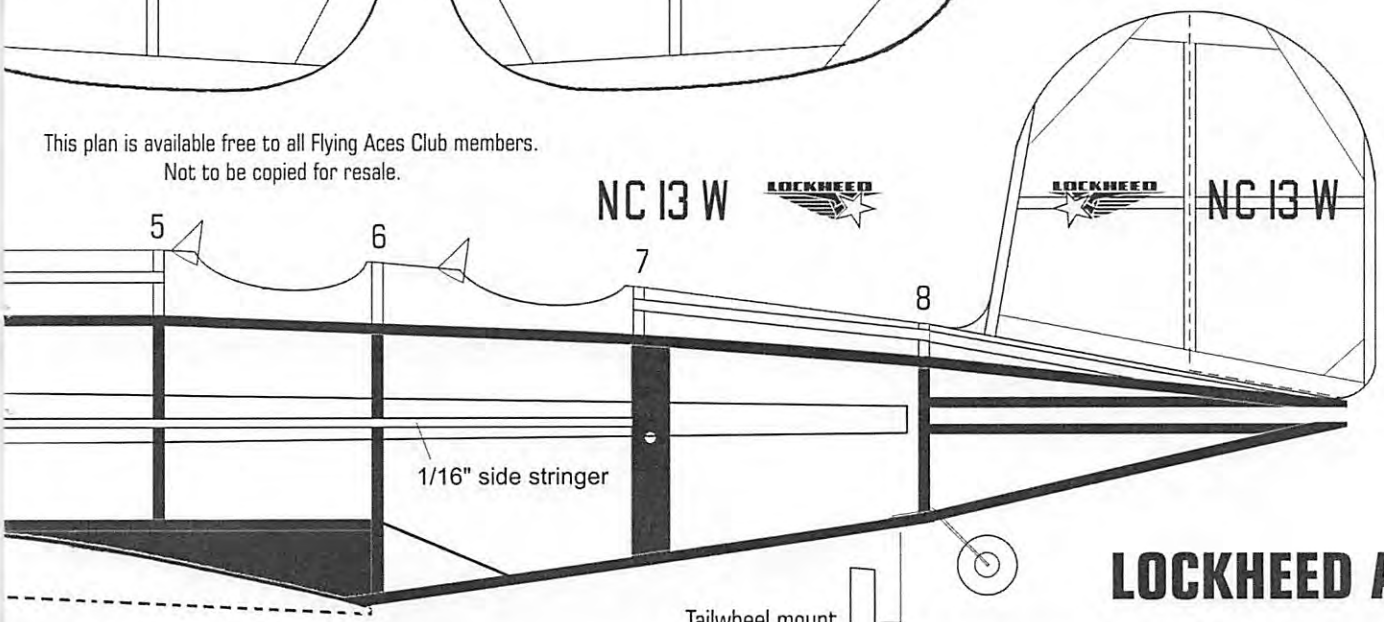


Color scheme: NC 13 W had a long career, undergoing several modifications, and apparently wore more than one paint job. It started life as a Sirius, with fixed landing gear and wheel pants. It was an overall dark color, with lighter stripes and registration markings. After conversion to an Altair with retractable landing gear, the flying surfaces and fuselage stripe were repainted in a lighter color. This is the version shown on the plan. Later, the ship was given an enclosed canopy, and perhaps yet another paint job, along with the name "Miss Stratosphere."



All the photos are black and white so pick something you like!

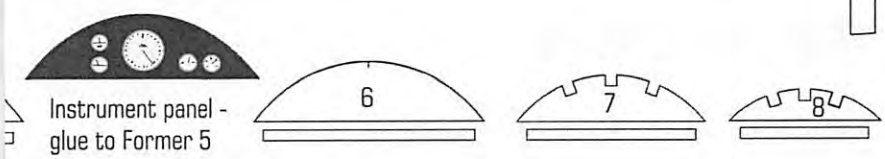
This plan is available free to all Flying Aces Club members.
Not to be copied for resale.



LOCKHEED ALTAIR

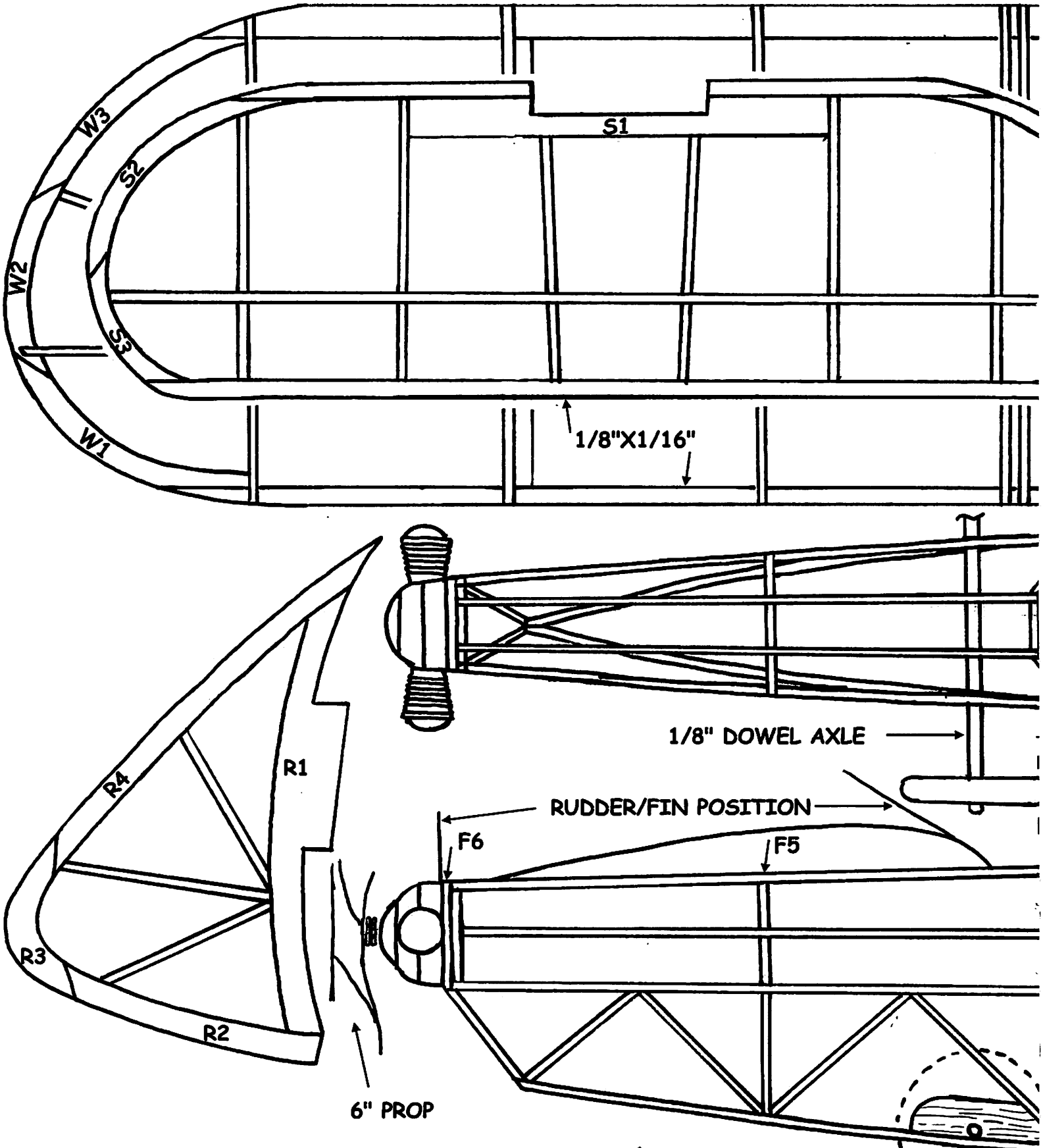
16 inch wingspan

Dime Scale





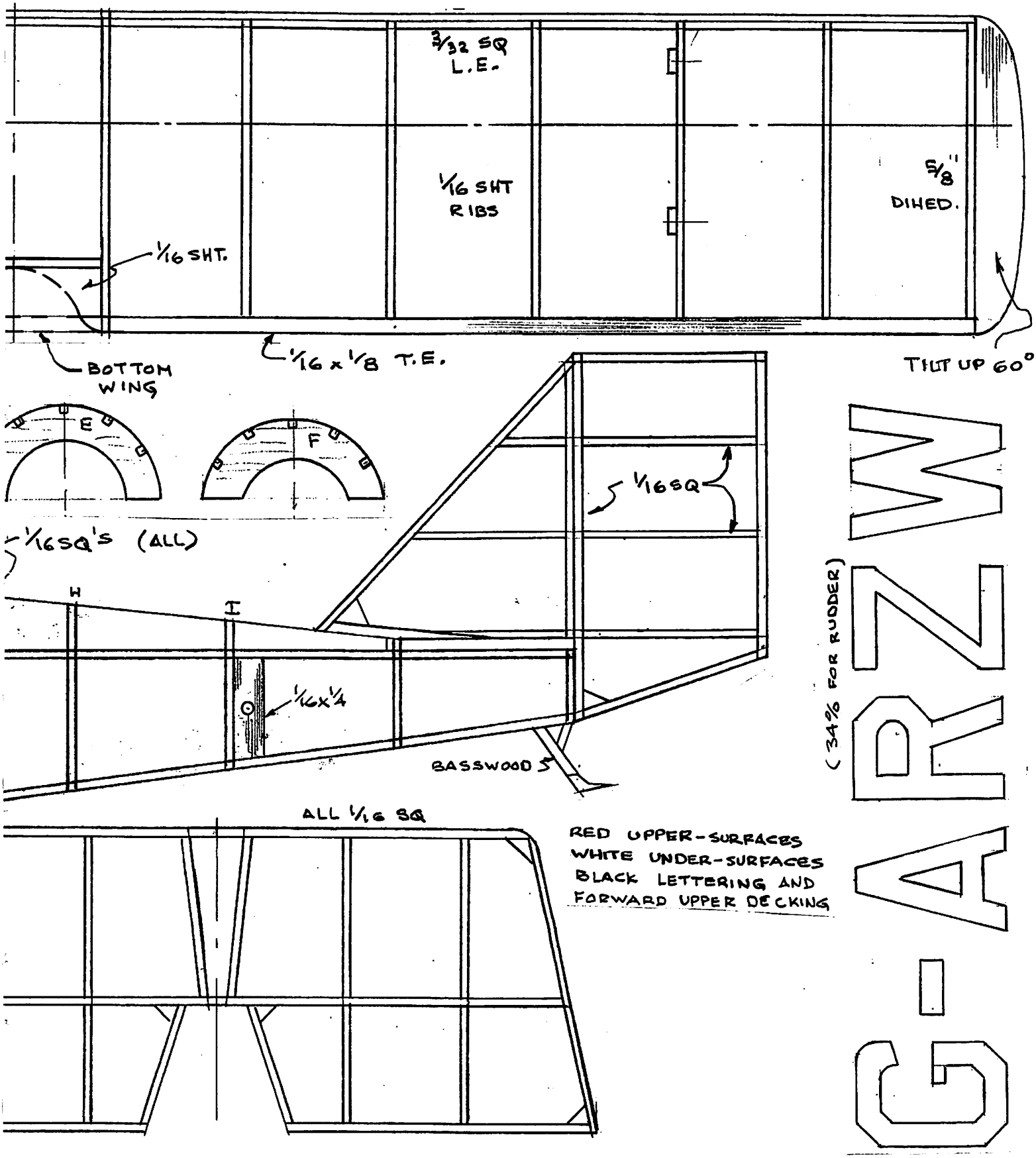
Wingnut Aero Works, Ltd.
Rich Weber 2017



AVIONETTE CANARD AW.6.B

NEO DIME SCALE HOWARD KOVERMAN 2017

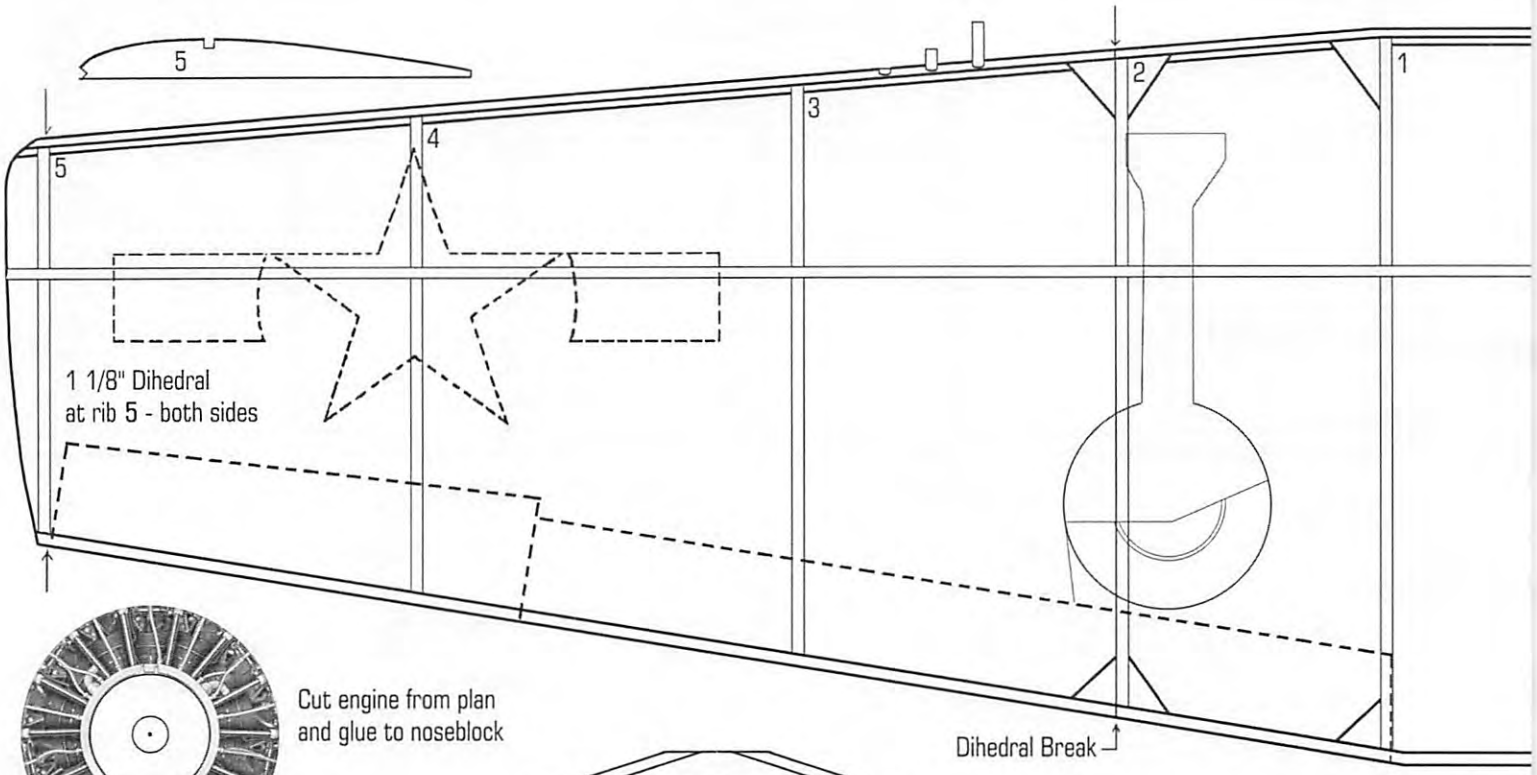
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CURRIE WOT
PSEUDO-DIMER

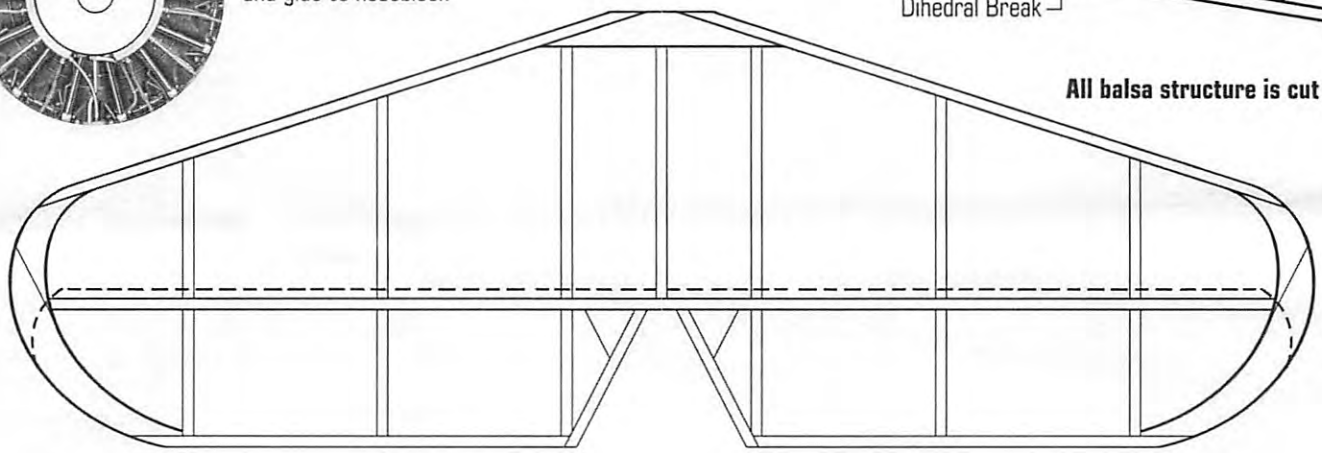
REE AEROMODELLER 3/65

BY DAVE PISHNERY

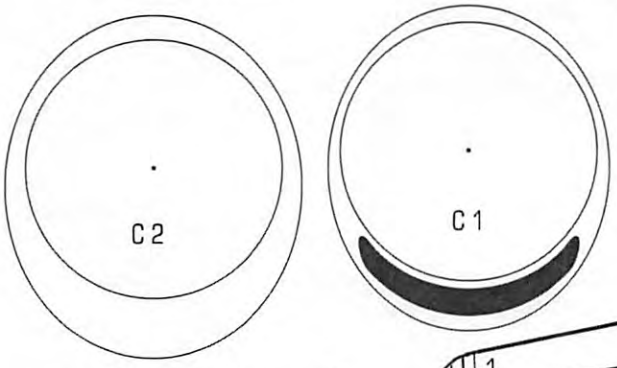


Cut engine from plan
and glue to noseblock

All balsa structure is cut from 1/16" sto





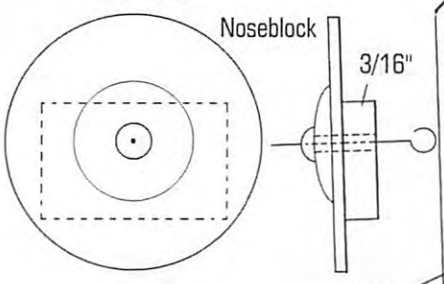


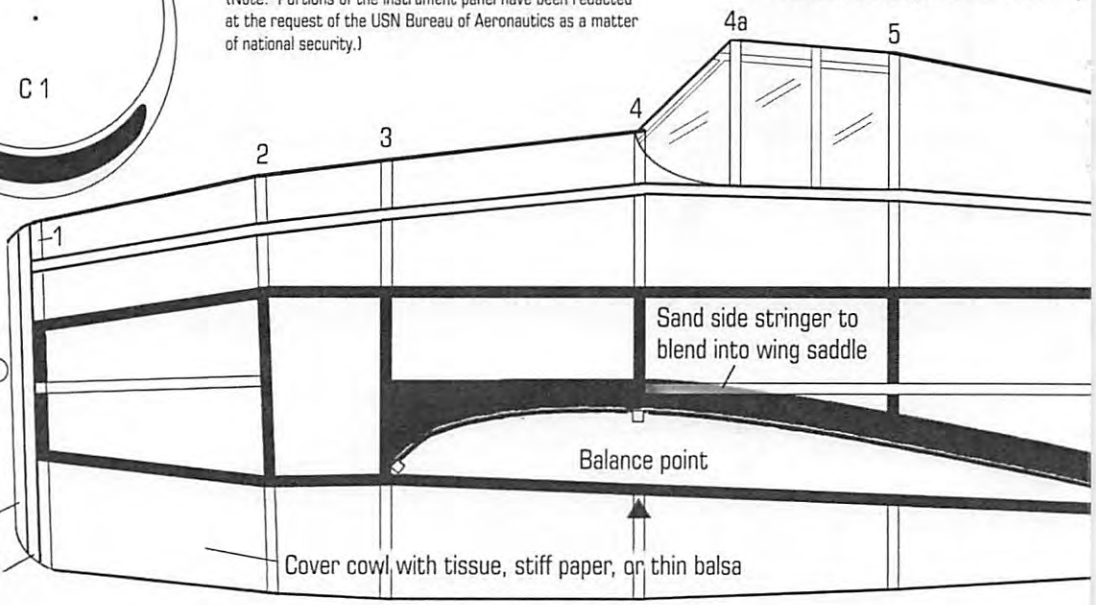


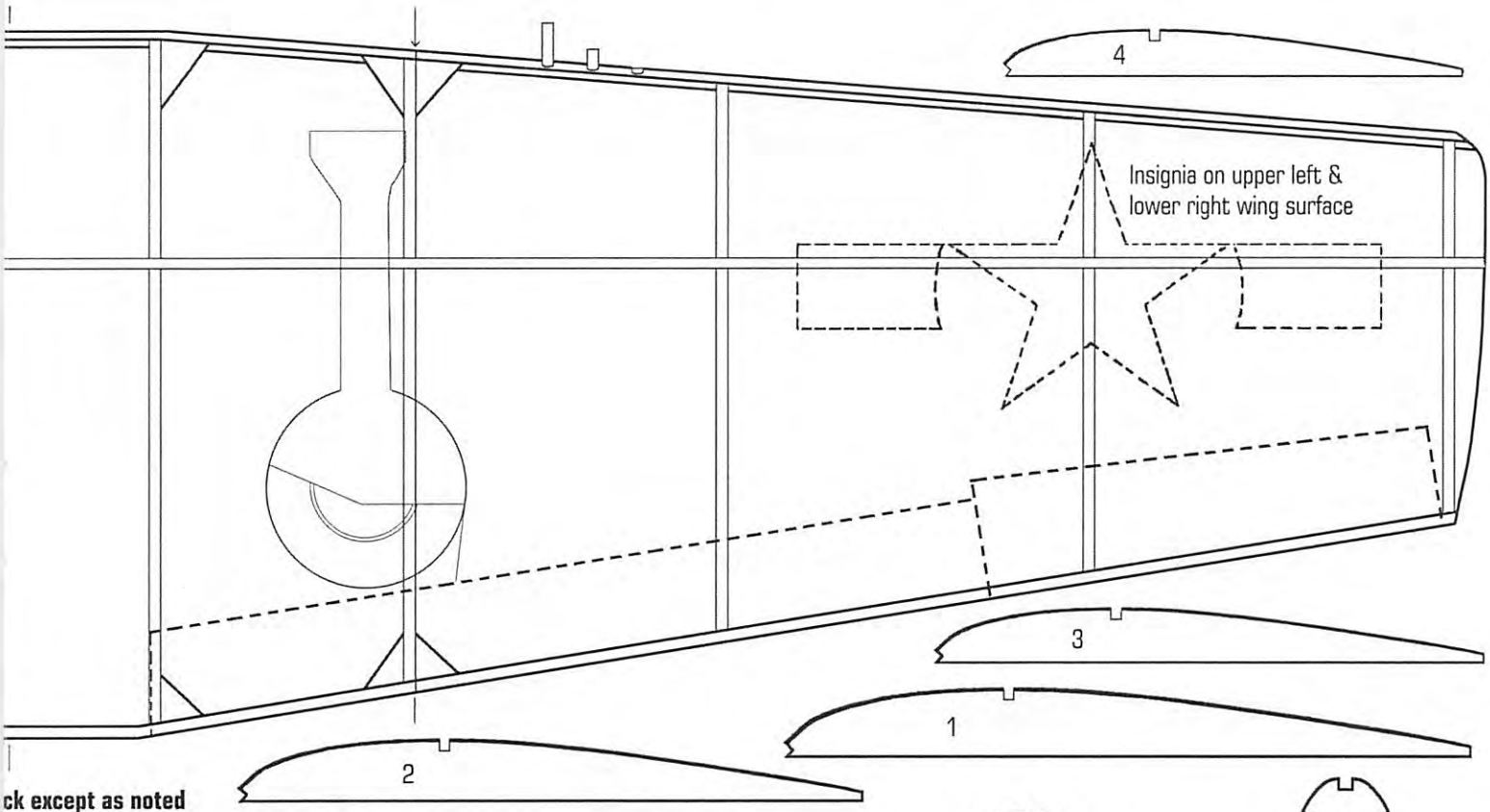
Cut out and glue to
the top of F 4

(Note: Portions of the instrument panel have been redacted at the request of the USN Bureau of Aeronautics as a matter of national security.)

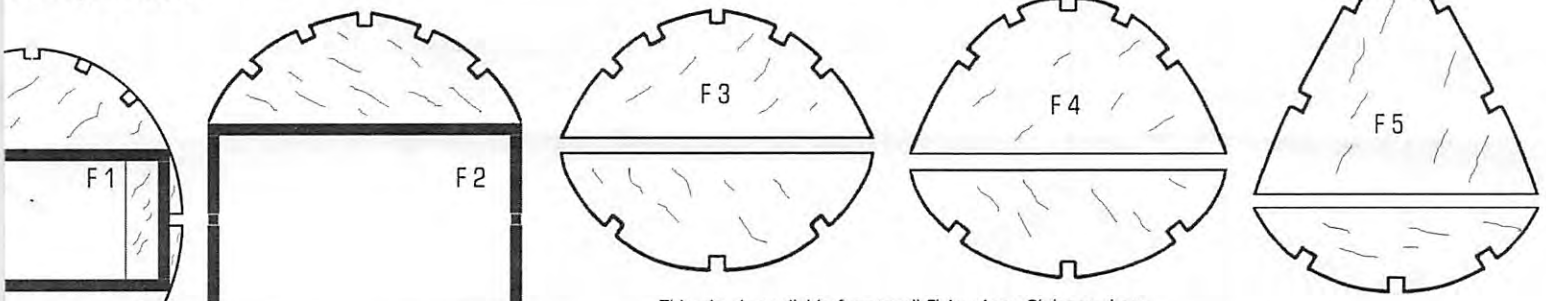
Cover canopy with celophane
& make framing from tissue strips





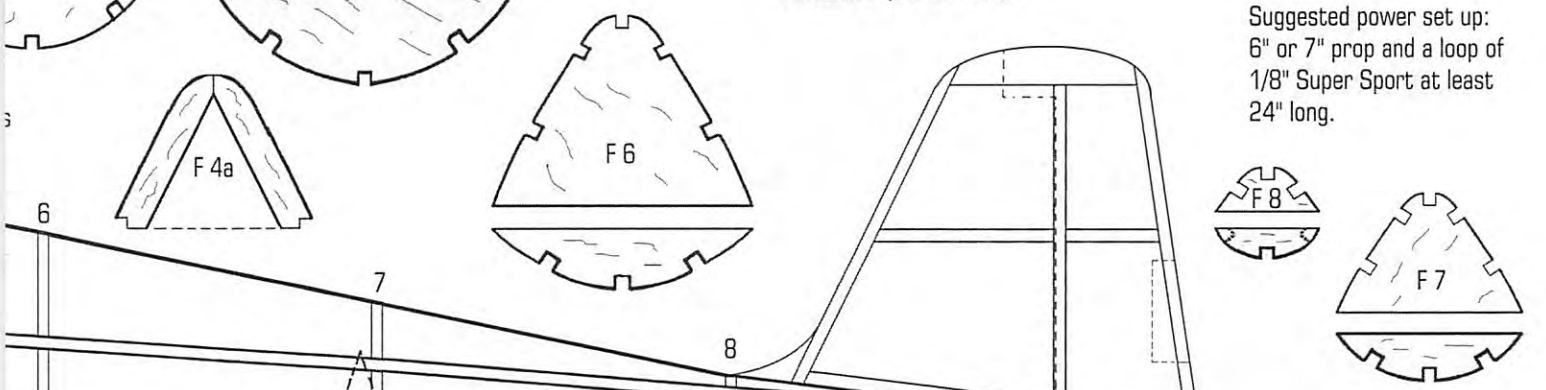


ck except as noted



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Suggested power set up:
6" or 7" prop and a loop of
1/8" Super Sport at least
24" long.



F6F HELLCAT

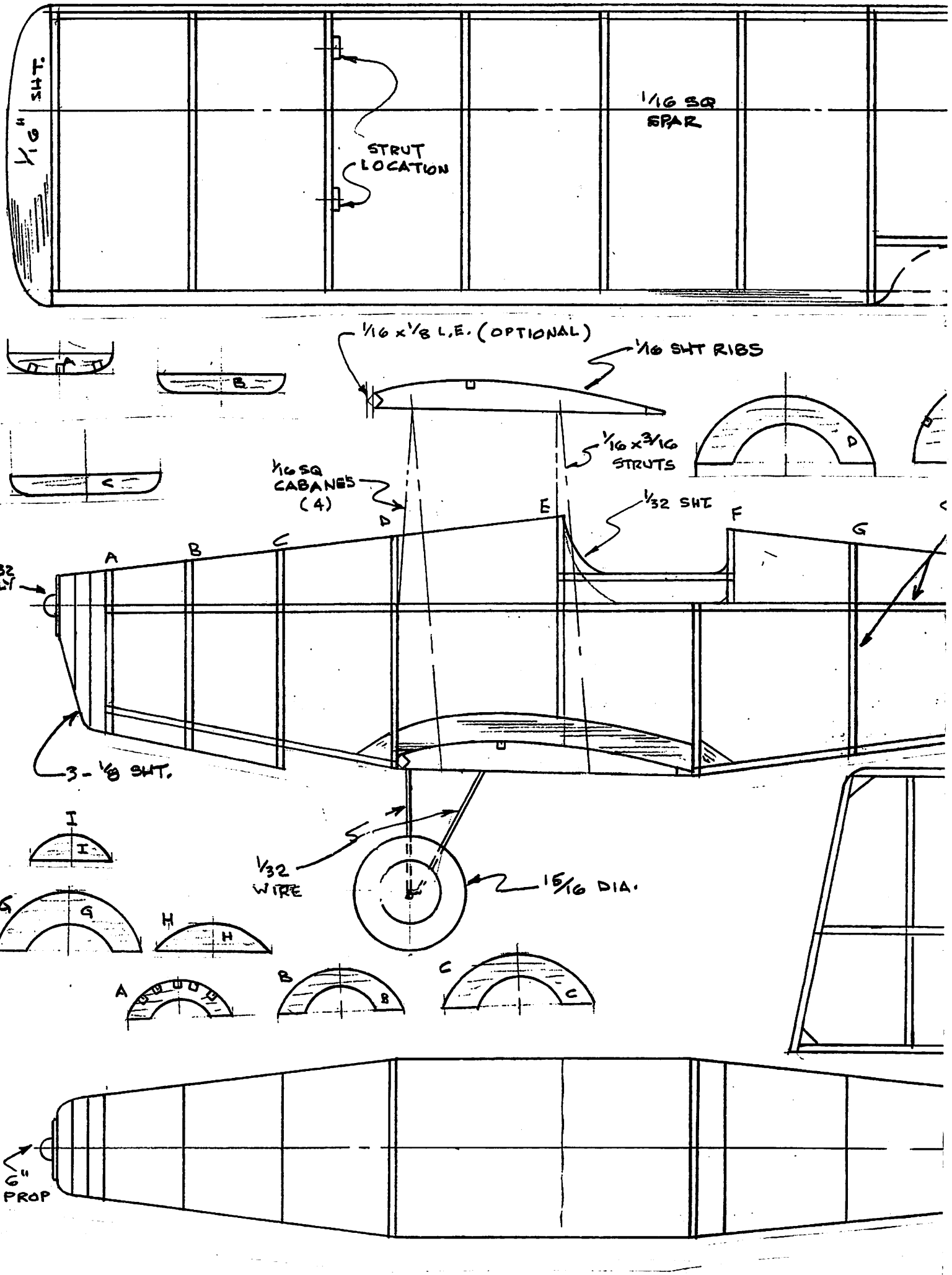
16 inch wingspan

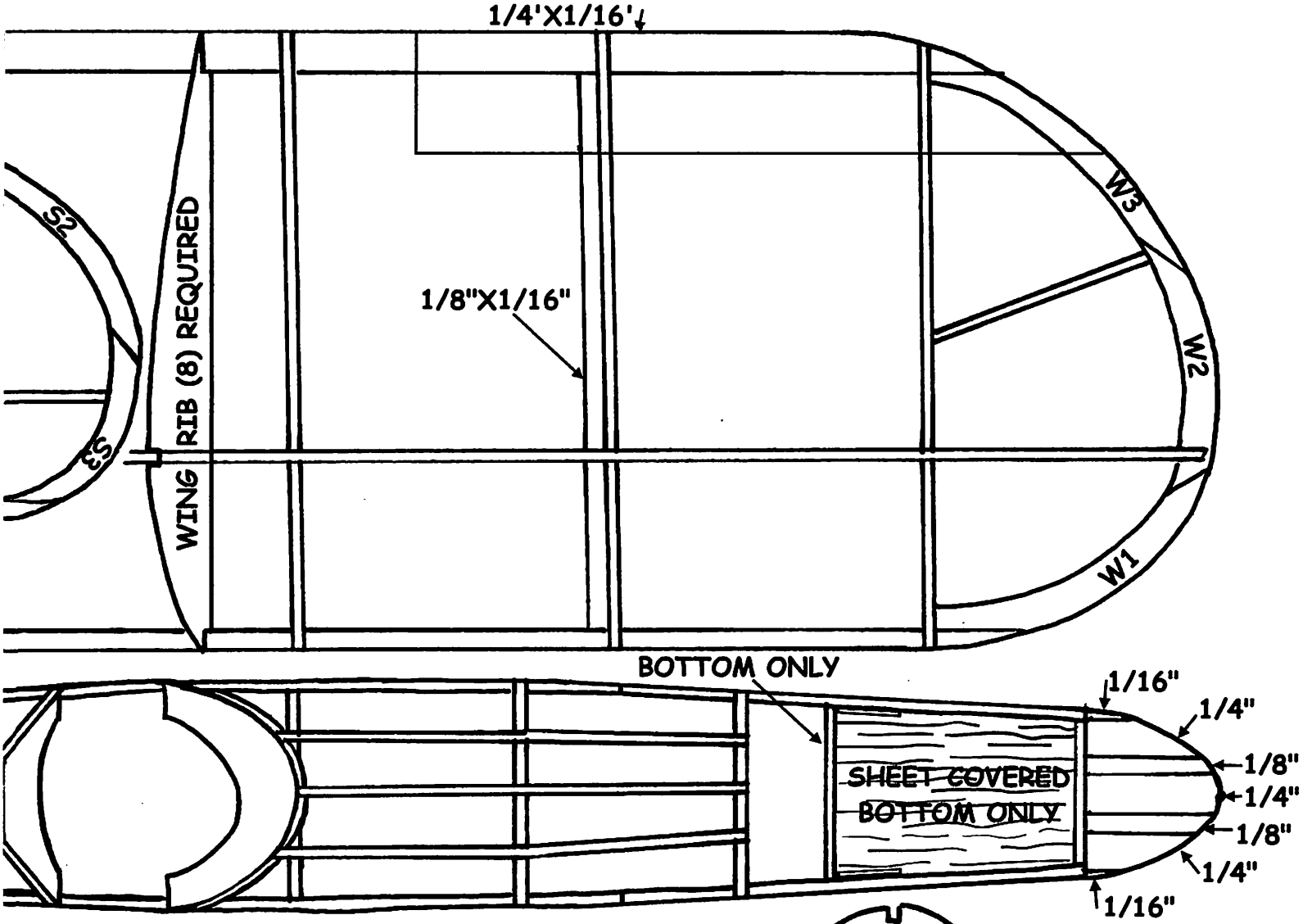
Dime Scale

Wingnut Aero Works, Ltd.

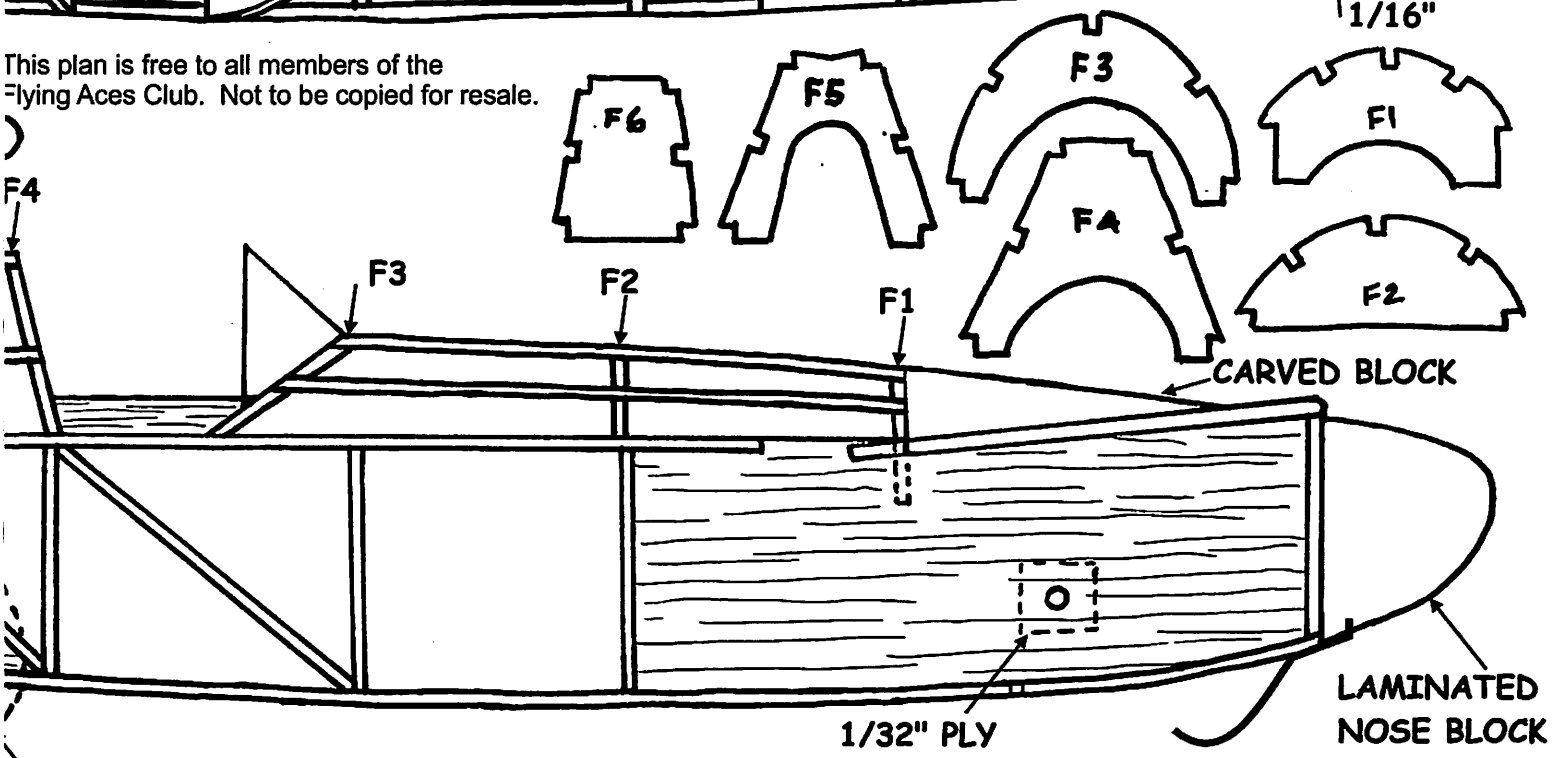
Rich Weber 2017

Color scheme: Overall dark blue, markings white

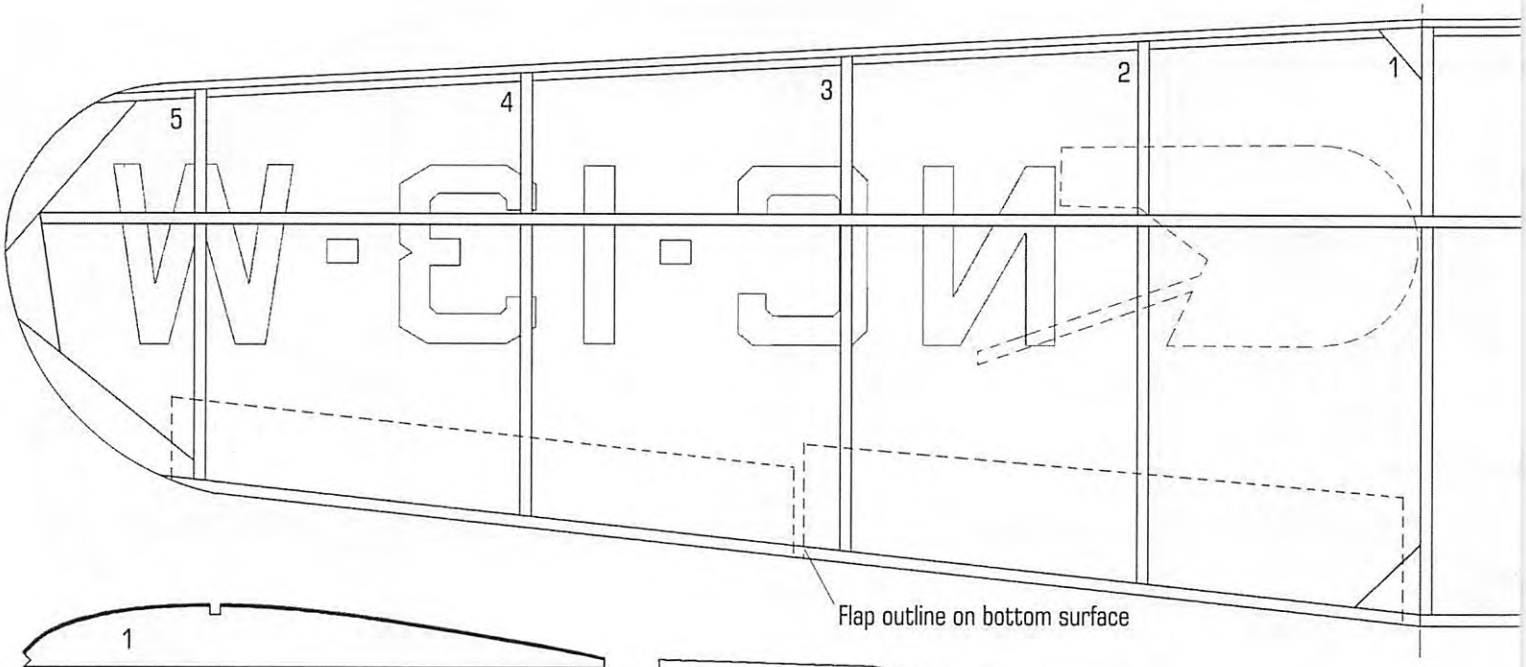

1/16 SHT.
STRUT LOCATION
1/16 SQ SPAR
1/16 x 1/8 L.E. (OPTIONAL)
1/16 SHT RIBS
1/16 x 3/16 STRUTS
1/16 SQ CABANES (4)
1/32 SHT
1/32 PLY
3 - 1/8 SHT.
1/32 WIRE
15/16 DIA.
6" PROP
A
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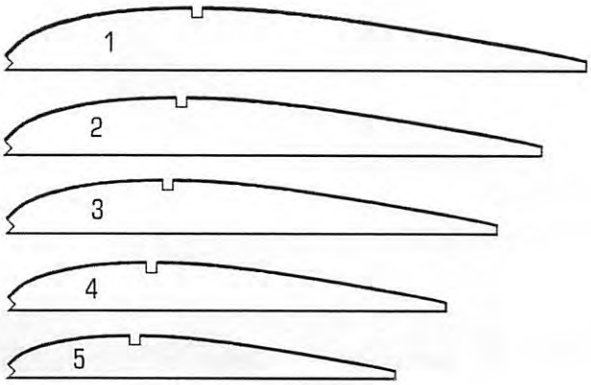


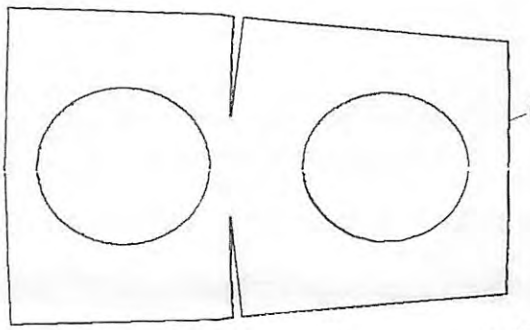
This plan is free to all members of the
Flying Aces Club. Not to be copied for resale.

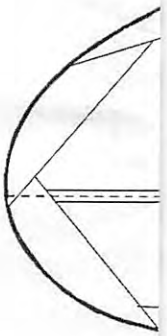


ALL SHEET WOOD 1/16"
UNLESS OTHERWISE SPECIFIED





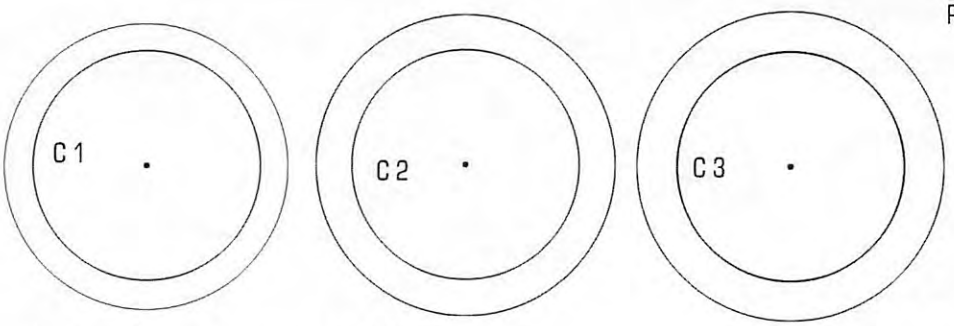




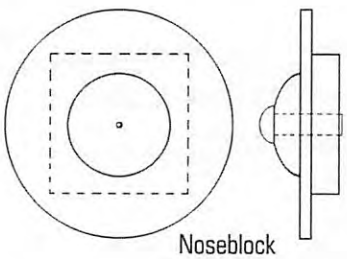
P&W Wasp



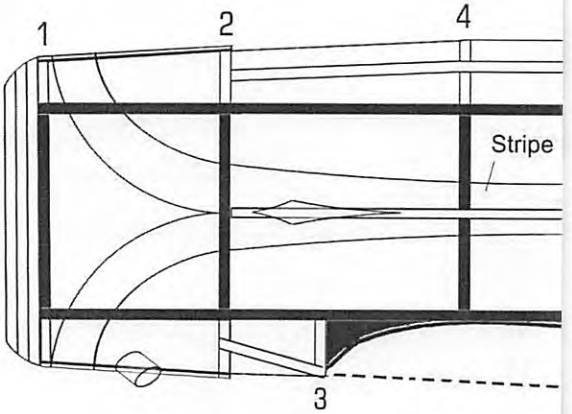
Cut out and glue to front of noseblock



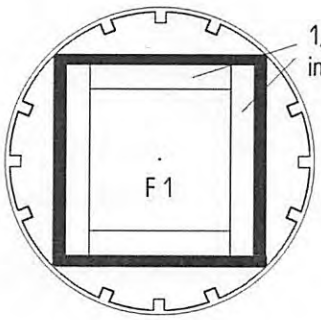
Front cowl rings can be made of 3 1/16" parts glued cross grained, or made from a single piece of 3/16"

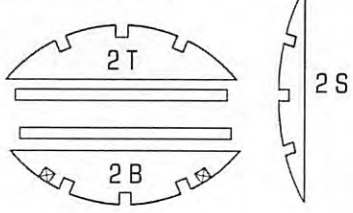


Noseblock

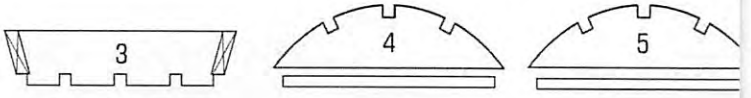


Cowling can be covered with tissue, stiff paper, or thin balsa



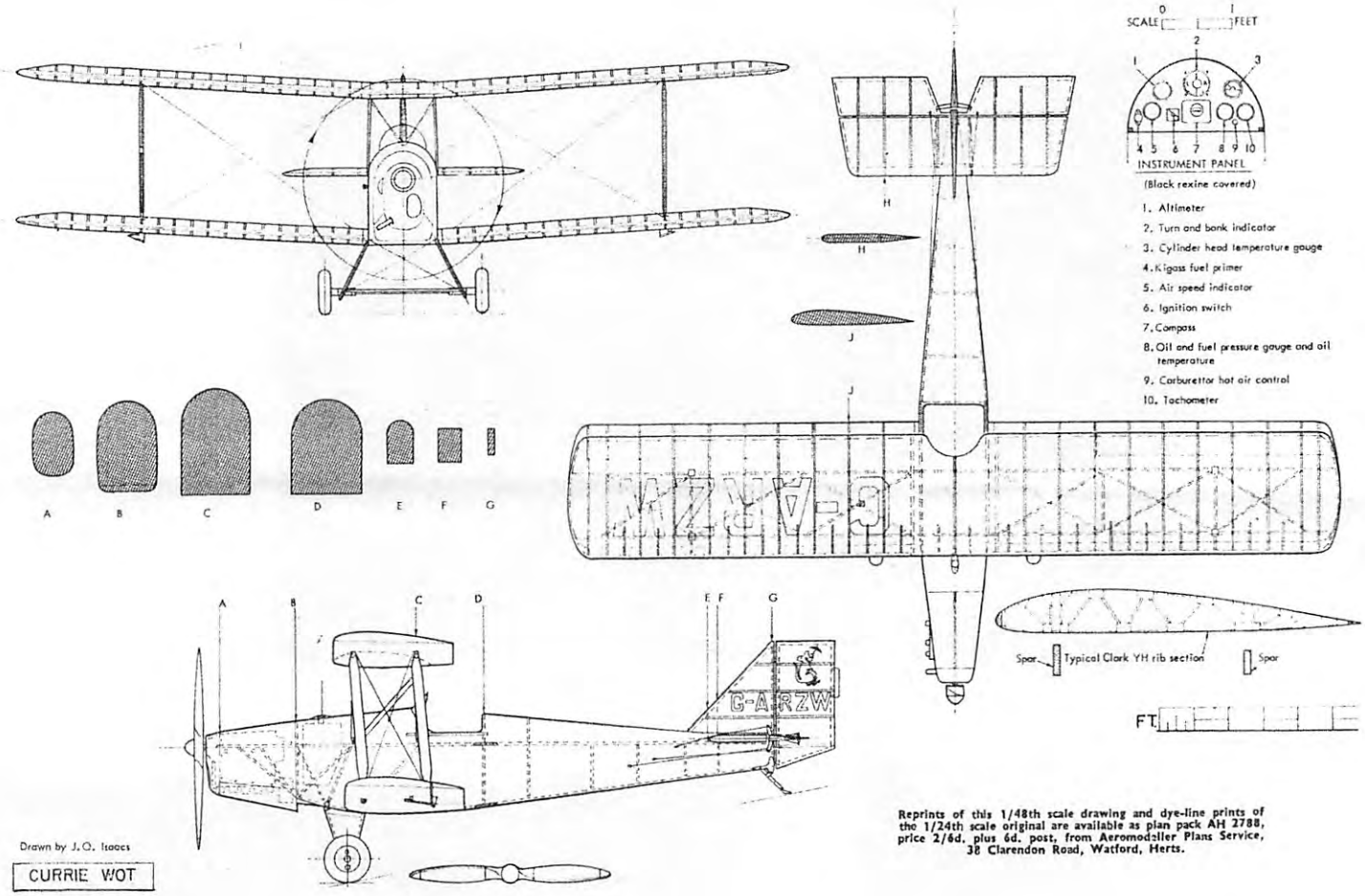


All balsa structure is cut from 1/16" stock except as noted



Currie Wot "Airymouse"

In 1937, when John Currie was continuously asked what he was going to call his little bipe, he said: "Call it wot you like."...and so it was. The two originals were destroyed in a bombing raid in 1940. This version was built in 1958 with a 35 HP JAP, but after it seized was replaced with a Walter Mikron. Harald Penrose (former chief test pilot for Westland Aircraft Ltd.) flew it for many years until giving it up. This version was based on the "Aeromodeller" article from March, 1965 and Harald Penrose's book "Airymouse." It's a prosaic read of his flying around southern England when he got the itch to fly again after his retirement.



Reprints of this 1/48th scale drawing and dye-line prints of the 1/24th scale original are available as plan pack AH 2788, price 2/6d. plus 6d. post, from Aeromodeller Plans Service, 38 Clarendon Road, Watford, Herts.

PFA AT ROCHESTER: among those present . . .

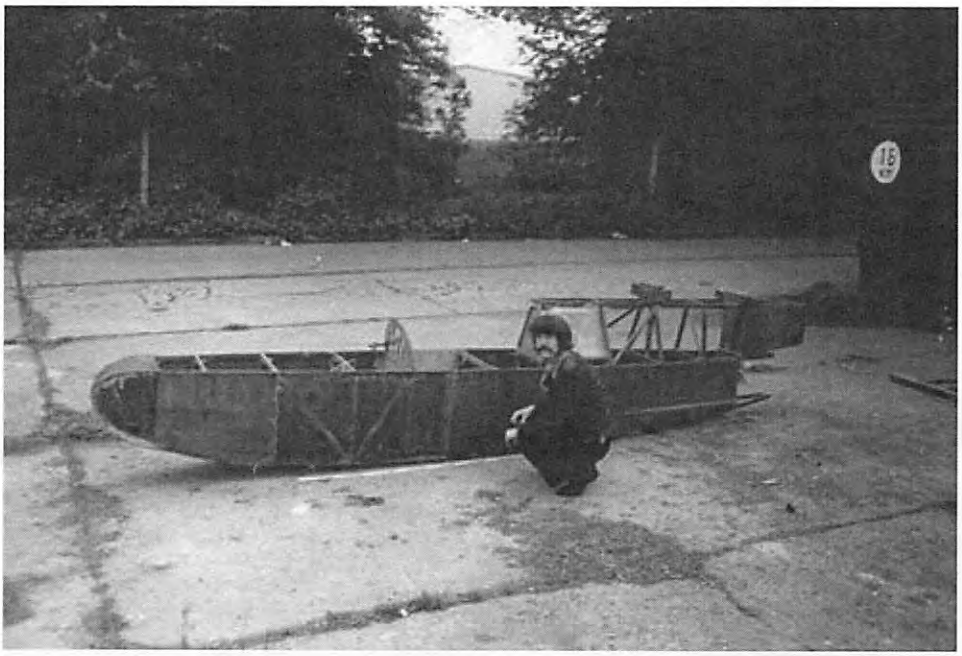




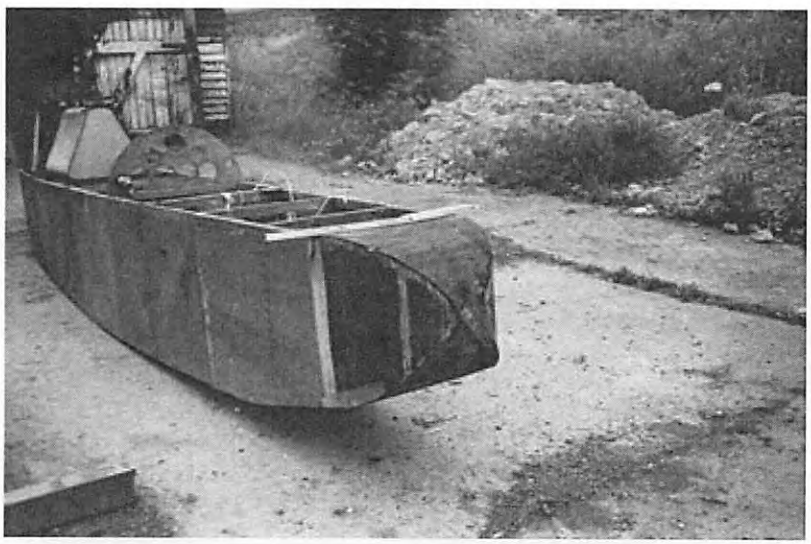
Amongst the many amateur-built aircraft at the Popular Flying Association's rally at Rochester were the Druine Turbi, above left, and the very neat red Currie Wot built by Dr Urmston and powered by 65 h.p. Walter Mikron. The Wot is stressed for aerobatics

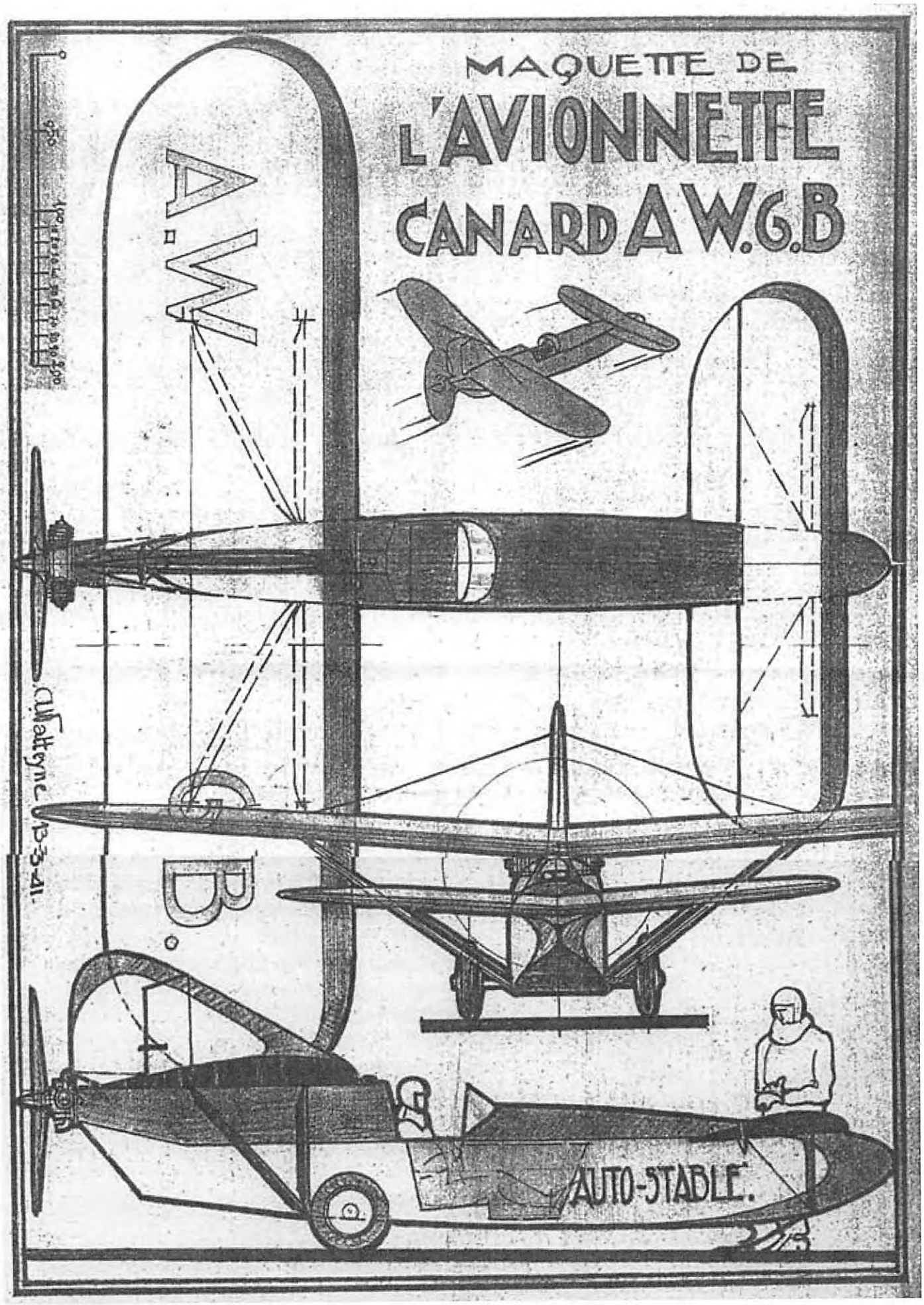
Belgian Mystery Ship -

Jean Dillen in Antwerp, Belgium discovered this unusual airframe in the early 1970s. in an old hangar at Antwerp-Deurne airfield. A never finished homebuilt. The rudder has some likeness to the French Pou Du Ciel but fuselage and wing seems to indicate otherwise. The wing shown also seems to be the lower smaller one on a bi-plane. Two aviation enthusists, Thibaut Cammermans and Flying Flea expert Alain Blondiau, identified the aircraft as the Avionette Canard AW6B. It was designed during the 1940's by the prominent Belgian architect, Andre Watteyne to allow owners of part-built Fleas to re-use some of the components to build something completely different, namely a tail-first 'canard' design. Interestingly the mainplanes and canard look almost identical to Luton Minor wings and tail, albeit in a different order. Although some scale models were built, the pictures show the parts of the only full-size example. Watteyne designed several canard models including the 1936 Wakefield Velivole, now being kitted as a half wake by Easy Built Models.








MAQUETTE DE
L'AVIONNETTE
CANARD A.W.6.B
A.W.
B
AUTO-STABLE.

2017 Cleveland Free Flight Society

Outdoor Flying Events

Lorain County Community College Field

Located on Rt.301/Abbe Road - I-90 Exit to Rt.301 S

Flight line accessible from main campus entrance or Hoag Drive, whichever is upwind

10:00 am to 5:00 pm

Apr 30 May 21 June 11 July 2 July 23 Aug 13 Sept 3 Sept 24 Oct 15

FAC Scale
FAC Dime Scale
FAC Embryo Endurance
FAC Two Bit O.T. Rubber
FAC Half Wakefiled

AMA Hand Launched Glider
AMA Catapult Glider
FAC Jet Cat Glider

CFFS Classic All-Sheet Scale (club rules)

Bungee Launched Scale Glider – Unofficial event will be flown to the provisional FAC rules just for bragging rights.

Mass Launch Events

FAC Greve Race	12:30
FAC Thompson	1:30
FAC WW II Combat	2:30

(Note: Other events may be added if there is sufficient interest.)

FAC rules apply, with inspection of O.T., Embryo, and Dime Scale models prior to first flight. **Bring your plan.** FAC Pilot's checklist will be used in all non-judged scale (total of three flight & mass launch) events. Flier must pre-select event for multiple option models. **Mass Launch events will start at posted clock times! Be ready!**



AMA membership is required to fly on the LCCC campus. The $5.00 field use fee covers AMA insurance and the field rental. (Kids fly free!)

Contact CFFS Secretary Jim Gaffney or Rich Weber for more information

jamesfgaffney@hotmail.com 440 – 258 – 1436

se5weber@gmail.com 440 – 409 - 8845

***Build** what you love.*

***Fly** all you can.* ***Win**...just let it happen!*



Some of the crew at the '02 Nats: Mike Zand, Irene Zand, Dennis Norman, Nancy Barlow, Jim Hyka, Rich Weber, Del Balunek, Steve Griebling, Gordy Roberts, Danny Kane, and in front, Vern Neff.



Jim Hyka with his Stinson.



Gordy on the Field of Dreams, Geneseo, NY.



Dennis Norman with his display at a more recent FAC Nats.

FLIGHT. LIBRARY

Flightcolour No 118: Currie Wot G-ARZW was the first homebuilt example of J. R. Currie's 1937 wood and fabric aerobatic single-seater. The aircraft is based at Shoreham.



Here's an alternate color scheme for the Currie Wot. G-ARZW was repainted in this yellow/silver scheme some time in the 70s . Looks like a red, white, and blue sunburst on the upper wing, and a Snoopy cartoon on the fuselage side below the cockpit.