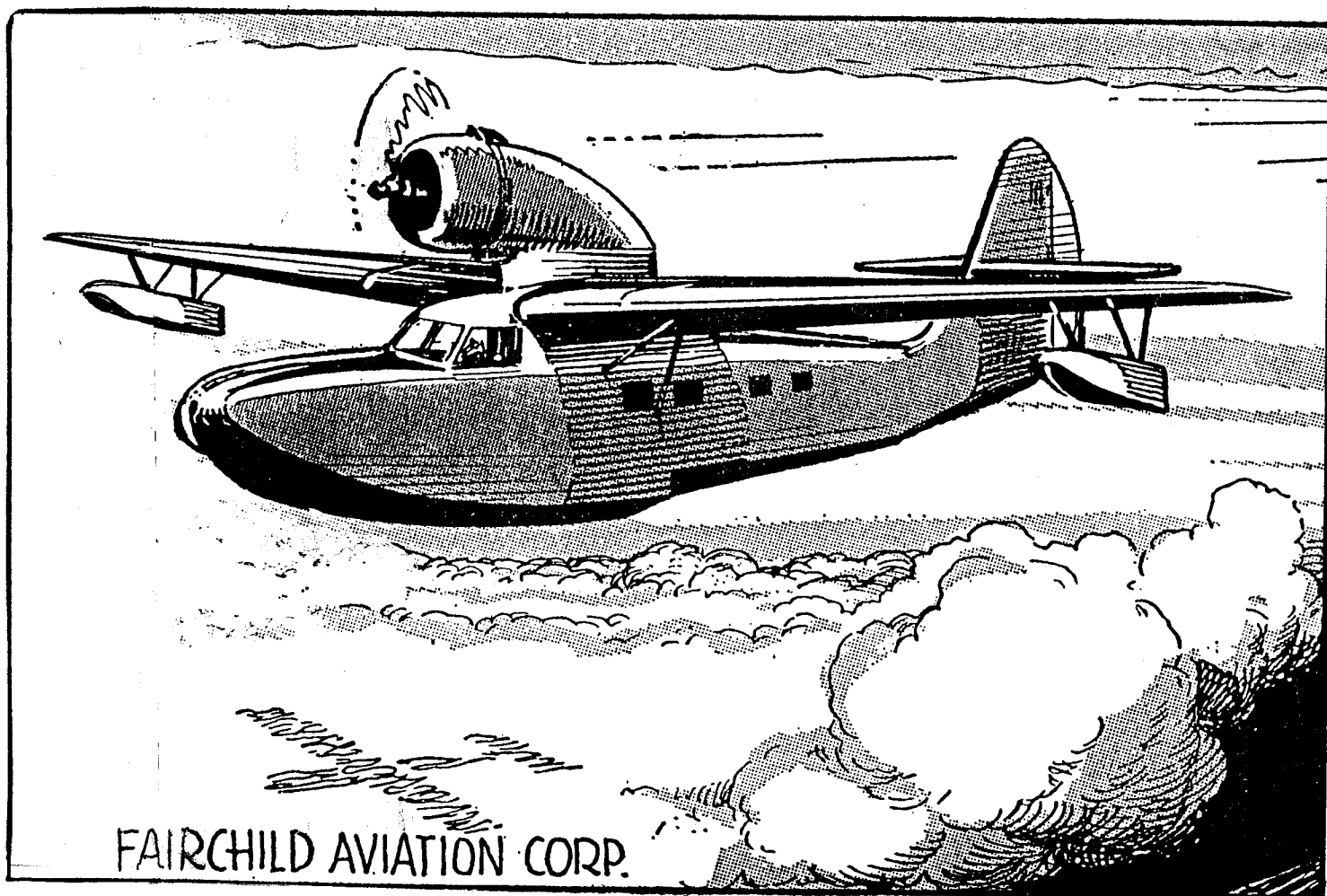
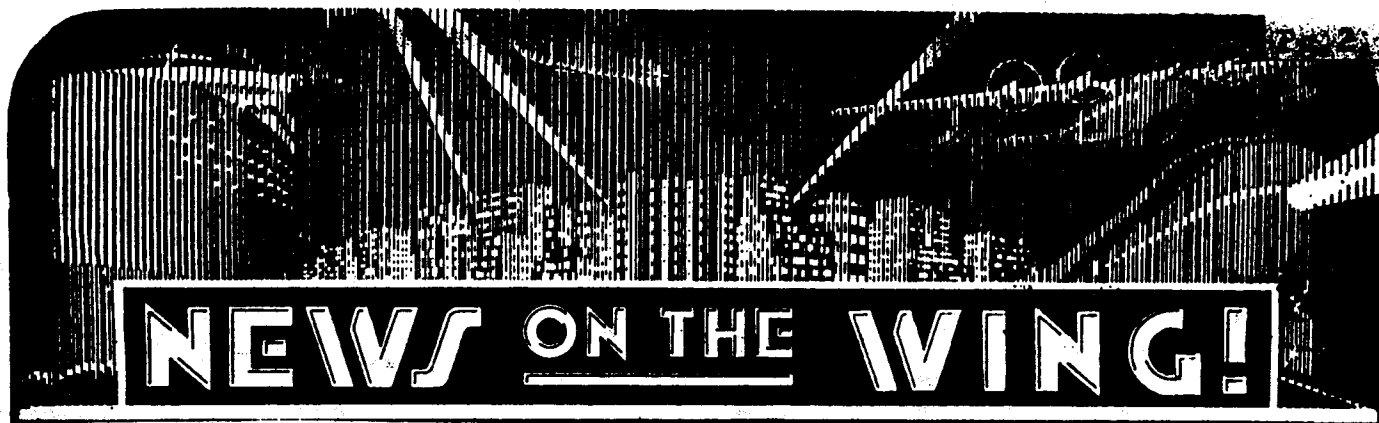


FLYING ACES

Club News

~~#211-169~~
ISSUE #243-169 Sept./Oct. 2008
#243-169





Let's communicate! We all know that the FAC News is the official word of the FAC, but how many of you read it cover to cover? Your dues money goes to printing the annual rule book. How many of you read it cover to cover? From the emails I get I am sure that many of you are rather selective about what you read. Get your money's worth...read the news and rule book and then if you have questions or comments, contact a Council member or myself. Their names and addresses have been previously published. I'm at facghq@verizon.net or 4207 Crosswinds Drive, Erie, PA 16506.

When you send email please keep in mind that your expected immediate reply will be forthcoming...just as soon as I take care of the numerous emails already in my mail box. If you don't hear from me after a few days, send a "gentle reminder" that you had a comment or what ever. My family and career still take precedence over several of my other interests. So unless you are an independently wealthy hermit living on a private island...you know what I mean. And by the way, my computer has a program that automatically sends all the nasty notes to the bottom of the list. Isn't technology wonderful!

Many of the emails deal with someone not receiving their FAC News. Some have still not received theirs a week or two after a flying buddy in the next town has gotten his. Our beloved news letter is sent as "Bulk Mail" to help keep the costs down. As such it leaves the Erie post office "whenever" to sit in your post office for "who knows how long" before your carrier has a "light load" and delivers your news letter. Please be patient. More than once a "lost news letter" was replaced to arrive shortly after the original. Unnecessary duplication costs you (the FAC) money and us (GHQ) time and energy.

Speaking of the FAC NEWS and email addresses... The next time you renew your membership, please list your home phone number and email address. And don't become MIA! When you move or change ~~mail~~ addresses, let GHQ know!

FAC Spirit at its best. At the FAC NATS, Luc Martin of Canada as awarded fifth ~~place~~ in WW II Combat. He insists that isn't the case. After the banquet he returned the plaque with a message to that fact, but I didn't get the word until after I had mailed the plaque back to him thinking that it was left behind by mistake. All the paper work in hand about the event shows that he did indeed take fifth, but he still insists that he didn't. He wanted me to make note of this issue in the news letter so he won't "...get a reputation as a cheater!" Luc, no one has come forward claiming they are the true winner of fifth place. Please, keep and enjoy the plaque. And thank you for displaying such FAC Spirit for all to see.

FAC NATS Thanks! Here's a big "THANK YOU!" to all who sponsored events or donated items to the raffle. Names are listed elsewhere in this issue. And "Thanks!" to Bob Clemens whose photo of Lin was used as our cover page. Bob's photo was also used by Bob Brown in his September AMA District III report.

Thanks to all who provided material for this issue of the FAC News. We're always accepting material for the news letter.

Wishing you blue skies and gentle thermals, Ross P. Mayo, CinC, FAC.

Rosa

From the editor - Juanita Reichel

Inadvertently we left off the photographer's name for the pictures in the last newsletter. The photos were taken by Bob Clemens. Sorry Bob for not giving credit where credit is due.

We will make mistakes and if you find one, all you need to do is write to me at 3301 Cindy Lane, Erie, PA 16506 or call me at 814-833-0314. If you have not sent Ross your e-mail number, please do so. Ross needs this e-mails in case of an emergency or we want to get information to you before the newsletter comes out.

One of the things you keep forgetting is that Ross and I took over the reins, after the death of my husband and we didn't want the newsletter to stop or your getting information you may need and the Nats and Non Nats. It took a lot of work for the two of us to make the 30th Anniversary a wonderful time for everybody. Thanks for all who stepped forward to do what ever was asked of them. I worked along side of Lin whereas Ross had to play many things by ear. Ross, as far as I'm concerned you did a good job.

A name for the Blue Max was not mentioned at the Banquet. Ross gave the Blue Max to George White to take back to Florida tp Paul Grabski. Sorry for not mentioning you among the recipients but we congratulate you in the newsletter.

We would like to thank Dean Fuller for his contribution in place of volunteering for the Nats due to his age. Thanks again Dean.

Back issues of the newsletter is \$3.00 and when they are gone there will be no more unless we raise the cost. The cost of making the newsletter plus postage has increased. This is an issue we must talk to the Council of FAC about. Will give you an answer in the next newsletter.

All pictures in this newsletter were taken by Freddie Wunsche.

We went to the Muncie meet, had some rain but that did not stop the meet. Turnout not as good as last year but this was probably due to the price of gas. If we receive any pictures from this meet we will put them in the newsletter.

IF YOU WANT A CALENDAR THIS YEAR, WE WILL NEED TO RECEIVE PHOTOS OF PLANES. THEY SHOULD BE 8 X 10 AND HAVE AS LIGHT AS POSSIBLE BACKGROUND. GET YOUR PHOTOS IN AS QUICK AS POSSIBLE.

NOTE: DUES STRUCTURE AS OF 1/1/2008 BELOW

IF THE CIRCLE ON THE RIGHT HAS THE DREADED RED "X" IN IT, IT IS TIME TO RENEW YOUR MEMBERSHIP WHICH INCLUDES THE NEWSLETTER. COST IS \$18.00 PER YEAR IN THE U.S.A., COST FOR CANADA IS \$25.00 PER YEAR. COST FOR OVERSEAS IS \$30.00 PER YEAR. ALL IN U.S. DOLLARS. SIX ISSUES PER YEAR, PUBLISHED APPROXIMATELY EVERY OTHER MONTH. PLEASE MAKE CHECKS PAYABLE TO: FLYING ACES CLUB, 3301 CINDY LANE, ERIE, PA 16506



Building Lou Garami's Mid Wing Sportster by Al Backstrom

I am an old guy but when I was a kid I looked at the small simple models that Model Airplane News [MAN] called Sportsters as things I would like to build. One interesting and attractive design often overlooked it the Mid Wing Sportster [MWS] in MAN 10/38. This is the first of Lou Garami's models that used a "moulded" sheet balsa fuselage. This feature was later used for a larger rubber model, the Cabineer, and several small power models. Unfortunately many model drawing of the era had drafting errors and inaccuracies. This is certainly the case in this design.

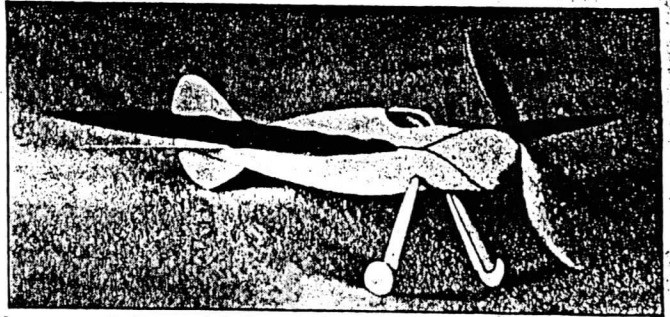
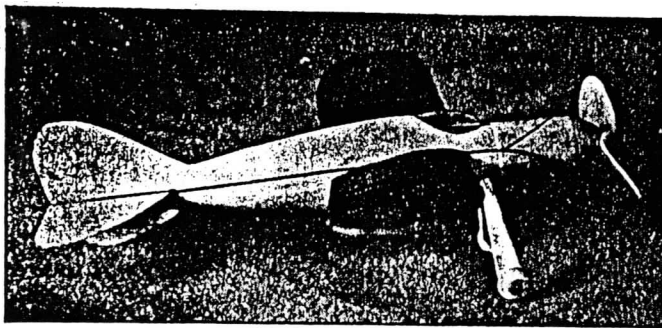
I liked the looks of the model and will describe how I used the drawings and describe how I constructed it and changes I found necessary. I did not really understand the description of the fuselage until AeroModeller [AM] published an article on Garami that included a description of how one of the later power models was built. A copy is included later. The drawing for the MWS shows lines of glue on the fuselage sheets to produce a curved section. All the later models called for dope on the inside of the fuselage. Nitrate dope was all that was available in the era of these models so I doped the inside of the sections, about two coats of nitrate, unthinned. The drawing sheet showing fuselage details only shows two formers. I used two for the cowl area plus the one at the nose cut into an upper and lower sections and one for a LG mount. I constructed the crutch as shown in the AM article and supported it slightly above the work area to add the lower sections. The crutch is not full length and didn't seem to need to be in the aft fuselage. Rather than the wire shown for the rear hook I added balsa fillers above and below the rear of the crutch so I could use a tube for the rear peg as is normal today. I drew a former for the forward end of the top sections and it is shown on the revised drawing. If you build this you may have to reduce or enlarge it as I can't get a good section now that it is built. I built the nose section as a separate piece using four 1/16 X 1/8 sticks to hold the two formers for sheeting. When the upper and lower basic fuselage were assembled I added the wings.

The wing and tail were built like the drawing but I used a 1/16 end rib and extended the LE and TE 1/8" and the spar 1/4". I have never been able to get a satisfactory mounting of wings to the side of a fuselage, so the wings were installed as follows. The spar was located at the front of the upper aft fuselage section. The side view show some positive incidence but no indication of how much. I located the LE over the crutch and the TE under it. For bending strength I added a "horse collar" frame of 1/64" plywood. This provided a strong and stiff mounting. With the wings in place the forward upper section of the fuselage is added. This is a trial and error process.

I still do not understand what was intended for the LG fairings but the photos of the model show a simple sheet glued to the gear legs so that is what I went with. The LG is mounted to the extra section inside the fuselage. I added thin copper wire on the tail surfaces so they would hold adjustments. I carved a prop and a nose block as shown on the drawing. The final weight of my model is 20 gms. less rubber. Not real light but not excessively heavy.

I first flew the model indoors using loop if 1/8" rubber but it seemed to like hitting the walls. I gave it to my friend Jerry Porter who has flown it a lot outdoors. He has used a loop of 0.150" rubber. He said with a length of the 0.150 with a 3X peg to hook length it is a great performer. I have it back now and will use a shorter loop since I don't retrieve as well as I did when I was younger.

I hope some of you will try this different model construction method.



The sheet balsa fuselage of monocoque design produces rounded graceful lines and great strength

Build the Mid-Wing Sportster

ALTHOUGH a large percentage of modern ships is constructed of sheet material (either sheet metal or plywood), in the model building game this type of construction has been very much neglected.

When it comes to models, the prototype of sheet metal is naturally sheet balsa, so to correct the above mentioned deficiency here is one "coming right at you."

The ship described here is a sample of what can be made out of sheet balsa, and provided the builder is willing to assimilate the knowledge passed to him by this article, it will net him an excellent ship and a study in balsa wood as well.

The weight of this monocoque body is no more than that of a built-up type of the same size, but it is stronger and more practical in every respect. The test ship had several sets of rubber broken in her without any damage to the fuselage; and after dozens of indoor and outdoor flights she is still ready to meet all comers.

Here are some facts about the ship:

Wing area: Fifty square inches.

Total weight: Seven ounces.

Power: Four strands of 1/8" rubber.

Maximum winds: 700.

Endurance indoors: 45-55 seconds.

Endurance outdoors: 60 seconds—fly away.

As the method of body construction is entirely new, to carefully read over that section of the instruction is absolutely necessary before attempting to wield a razor blade.

Body

Much of the ease with which the body can be made depends on the sheet of 1/32" soft-balsa secured for this purpose. The most important features of this piece should be a straight grain and an even hardness (or rather softness) all the way through. First copy and cut out blanks No. 1, making sure that the grain is running in the same direction on both pieces. Holding the two together, sandpaper them

A Fine Consistent Flier of Sleek and Refined Monocoque Design That Is Very Easy to Build and Fly

By LOUIS GARAMI

alike and make pencil marks 3/4" apart starting from the front. Do not forget that these marks will be inside body, so a left- and a right-hand piece is required. Now make the cement marks with a stick, just like it is shown on the plan, and lay them aside to dry.

In the meantime, cut the two longerons out of hard 1/16" sheet balsa. Make sure that they are exactly alike because the shape of the body depends on them. By this time the two blanks should be pretty well curled up. The depth of the curvature should be more than 1/4".

In case the cement marks are perfectly dry (after about one hour) but still the

on. Try to increase the angle a little toward the front, if it is possible without much forcing. Here are a few words to explain:

When the three spreaders; namely the rear hook, the middle wire spreader and the front former No. 1, are about to be put into the body, it is better to have the body sides opened up slightly more than the required width because by drawing them together a little the curvature of the sides will not be affected. While, if they have to be forced apart the sides will flatten out somewhat and might also twist.

The next move is to cement and pin in the two longerons. Their place is up at the open edges of the boat-like creation and should correct any deformation that may have developed so far. Adding the three above mentioned spreaders will finish the bottom of the body.

Now the two No. 2 blanks are treated the same way as No. 1 was. After the curvature is made they are pinned and cemented together at an angle which will assure a fair fit to the already finished bottom. When the cement is dry, use this procedure for joining:

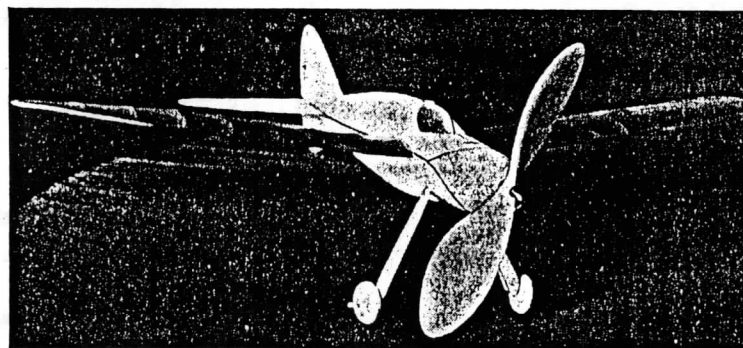
Pin and glue the pointed ends together first. Wait until the glue has set and then proceed to draw one side together little by little. Holding the body in one hand and putting cement in the seam with the other is the best way

to get speedy results. Pins are positively not wanted at this operation because of the big holes left when removed. Repeat the procedure on the other side. Use cement sparingly on the side joints, to be able to sandpaper them smoothly later on.

The preparation of No. 3 blanks is the same as the others. These are fitted to the body separately and joined behind the cabin and on the former last.

The nose of the body is bent out of two pieces of 1/16" sheet balsa. Inasmuch as there is no blank given in the plan for

(Continued on page 51)



The large propeller and light weight insures fine performance. A low center of lateral area provides stability.

sides are not cupped enough, additional cement marks between the old ones will remedy the matter. This method is used also in equalizing the curvature of the two sides. To compare them just put one into the other and look at them from the front.

Now pin the two pieces together, starting at the pointed ends, at about forty-five degrees angle. This operation is the easiest when done in sections. For instance, the first five inches are pinned and glued at the seam; when the glue sets, two more inches are done, and so

in the point where these two lines intersect.

The next step is to determine the position of this point relative to the *diagonal lines*. You will see that it is about 0.6 the distance from line (19) at the top of the graph to line (20), towards line (20). Therefore the speed of the plane will be (19.6) miles per hour. The pitch of the propeller may be read from the horizontal column marked "Pitch," above the "Speed" column. The difference between the pitch at nineteen miles per hour and twenty miles per hour is (0.4). Therefore the pitch is $(7.6) + (0.6 \times 0.4) = (7.6 + 0.24) = 7.84$ inches. Thus the propeller should have a pitch of 7.84 inches. This is approximate as the camber factor was not figured exactly by the formula in the first place. However it is very close to the results obtained by means of the camber factor formula, which will give values of about (20) miles per hour and (8) inches pitch. The values given by the graph are for a wing angle of incidence of three degrees.

In the next installment a method will be given for determining the speed and pitch values at various other wing incidence angles. Also there will be a complete explanation of how to choose the correct diameter and blade width for the pitch to be used. Don't miss the important conclusions determined in the next issue.

S.O.S

Chris Junker is trying to find a building plan Between 18" and 28" for Bellanca Cruise-Master. If you have a plan contact Chris at 469 Martha Drive, Meadville, PA 16335

Chuck Foschi is looking for a plan of the Cessna Phantom. Contact Chuck Foschi at P.O. Box 114, San Dimas, CA 91773-0114 or at his e-mail address.

Chuckfoschi@yahoo.com

Larry Goldman is trying to contact Dick Gleason of Gleason Ent. in Austin, MN. If you have any information contact Larry.

Does anyone know the correct address For Brian McDonald. The last address we Have is Bob 56525, Lougheed Mall P.O. Burnaby, BC, Canada. Please contact us If you have any information.

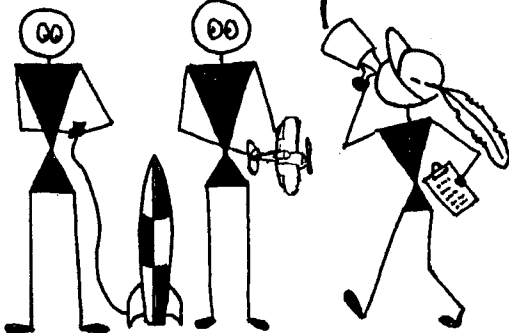
Jim Robarr is trying to find plans for a Canard in a back issue of the newsletter. The name of the plane is Lockspeiser LDA "British Homebuilt". Contact Jim at 2001 Glenridge Way, Apt. 23, Winter Park, FL 32792.

Sent in by Bernard Gillespie is an original copy of the Flying Aces Club banner in color but we only use black and white, when we print the newsletter. If anyone wants a copy it might be possible that Ross can send to you by e-mail. He also sent in information regarding the Dornier Do 17Z-5 which is located in another part of the news letter.

INKLINGS by Chuck Wenlock

OKAY GUYS! LINE UP FOR
WWII MASS LAUNCH.

I DON'T THINK WERNER
IS IN THE RIGHT CLUB.



2008 Flying Aces Outdoor Championships

The history of the Flying Aces Club can now record another happy gathering of the faithful at the wonderful AMA flying field at Muncie, Indiana. The ground was a little wet when we started on Friday, but we managed to do our thing in cloudy skies and a soft breeze between the effects of a hurricane and a storm front moving toward us from the west. Hung smiles on our efforts and weather conditions were good for the two days.

Attendance was a bit lower with some holding back possibly because of weather reports, and the exorbitant price of fuel was certainly a factor. Those who made the journey had a great time from all comments passed to me.

This meet was a success because our Co-CD, Fred Gregg took over about 95% of the organizing effort this year. He was assisted in no small part by Mike Welshans, and the Famous Cloudbusters once again stepped in wherever needed. Dianne Greg worked at the officials tent for the full two days (and she makes a great PBJ sandwich). Juanita Reichel made the trip from Erie with her friend Shirley Post and brought the familiar FAC items and colorful "T" shirts for sale that we all treasure. We were a bit short on Judging forms, so I asked Dan Olah to round up some copies, and AMA came to the rescue making free copies for us.

Our own Pres Bruning did the fine artwork for the theme airplane, the Fairchild 45, which will be flown in it's own event next year. A staunch supporting business of FAC, "Full Size Plans" donated the plan packet containing the F-45 plans. I want to thank all those who volunteered their time (and the terrific donations of raffle items) that helped make this contest a special way to celebrate summer's end.

Next year, we gather on Thursday and Friday, September 10th and 11th. And yes Shorty, we will have an event for Rapier powered scale models.

FAC Forever!! My best to you all, Ralph Kuenz

2007 Outdoor Champs Results

FAC Scale - 2008 Outdoor Champs		FLT.	FLT.	FLT.	High Flt	Scale	Bonus		
Contestant	Plane	# 1	# 2	# 3	FAC"D	Score	Points	Total	Place
Frank Rowsome	Lippish	72	88		74	60	35	169	1
Mike Midkiff	Sea Hornet	44	64		62	59	35	156	2
Walt Farrell	Miles Falcon	108			79.5	58	10	147.5	3
Dave Rees	Cant (brown)	37	52	41	52	62	30	144	
Dave Rees	Fox Moth	27	28	70	65	62	15	142	
Phil Cox	Fleet Trainer	65			62.5	61	15	138.5	
Paul Boyanowski	Hannover CL III A	26	29	56	56	62	15	133	
Bruce Finley	A6M3 Zero	55			55	62	10	127	
Walt Farrell	Vultee	67	66		63.5	53	10	126.5	
Dave Niedzielski	PT - 19	21	33	61	60.5	55	10	125.5	
Pres Bruning	AG Cat	40	40	39	40	61	15	116	
M. Zane	Bellanca Tri Motor	34	28	39	39	43	16	98	

FAC Jumbo Scale - 2008 Outdoor Champs		FLT .	FLT.	FLT.	High Flt	Scale	Bonus		
Contestant	Plane	# 1	# 2	# 3	FAC"D	Score	Points	Total	Place
Jack Tisinai	Jungmann	49	90		75	50	15	140	1
Richard Zapf	Canadair CL 215	33	44		44	54	35	133	2
Jack Moses	P-51A	35	59	48	59	58	10	127	3
Les Burdsal	Martin MO1	92	120	120	82.5	37	5	124.5	
Phil Cox	Aeronca 'K'	65	63		62.5	55	-	117.5	
Dave Rees	Cant (green)	26			26	60.5	30	116.5	
Mike Midkiff	DH9	49	43		49	48	15	112	

FAC Peanut Scale - 2008 Outdoor champs		FLT .	FLT.	FLT.	High Flt	Scale	Bonus		
Contestant	Plane	# 1	# 2	# 3	FAC"D	Score	Points	Total	Place
Jeff Runnels	BF-109 E	90	64		75	55	10	140	1
Walt Farrell	Miles M-18	91			75.25	45	10	130.25	2
Jim Millar	Lemberger	67	63	57	63.5	48	15	126.5	3
Jack Tisinai	Bunker Jungmann	35	43	53	53	57	15	125	
Walt Farrell	Floyd Bean	38	68	34	64	55	5	124	
Stu Weckerly	Buster	61	70	55	65	51	5	121	
Pres Bruning	Arado 198	45	46	49	49	61	5	115	
Bruce Finley	Farman 190	49	44	48	49	61	-	110	
Jeff Runnels	Nesmith Cougar	50	48		50	58	-	108	
Phil Cox	Monocoupe 110	51			51	49	-	100	
Michael Zand	Andreson BA 4	28	31	30	31	48	15	94	

FAC Dime Scale - 2008 Outdoor Champs		FLT .	FLT.	FLT.	Flt.	Bonus	Total	Total		
Contestant	Plane	# 1	# 2	# 3	Totals	Per Flt	Bonus Pts	Score	Place	
Frank Rowsome	Comet Fokker D-VII	102	95	73	270	15	45	315	1	
Walt Farrell	Maboussan	50	64	57	171	15	45	216	2	
Norm Becker	Beechcraft Staggerwing	49	48	57	154	15	45	199	3	
Walt Farrell	Arado-96	58	60	37	155	10	30	185		
Paul Boyanowski	Helldiver Bipe	42	48	38	128	15	45	173		
Mike Welshans	Pitcairn	44	35	39	118	15	45	163		
Pres Bruning	PT-19	43	31	33	107	10	30	137		
Phil Cox	Vega	39			39	0	0	39		

Embryo - 2008 Outdoor Champs		FLT .	FLT.	FLT.	Flt.	Bonus	Total		
Contestant	Plane	# 1	# 2	# 3	Totals	Points	Points	Place	
Stu Cummins	Debut	103	120	80	303	9	312	1	
Jack Tisinai	Jabberwock	84	81	88	253	9	262	2	
Mark Rzacca	Puma	90	79	75	244	9	253	3	
Dave Niedzielski	Debut	111	9	94	214	9	223		
Les Burdsal	Tomahawk	80	53	58	191	9	200		
Dan Olah	Yellow Cab	61	49	52	162	9	171		
Harrison Knapp	Debut	8	49	86	143	9	152		
Michael Zand	Debut	37	47	54	138	9	147		
Chris Boehm	Yellow Cab	61	68		129	9	138		
J. B. M. Griner	Prairie Bird	25	27	31	83	9	92		
Richard Zapf	PA - 20	68			68	9	77		
Norman Becker	(unnamed - as yet)	63			63	9	72		

Rearwin Speedster - 2008 Outdoor Champs		FLT .	FLT.	FLT.	Flt.		
Contestant		# 1	# 2	# 3	Totals	Place	
Paul Boyanowski		62	120	78	260	1	
Jack Moses		61	56	64	181	2	
Phil Cox		44	45	62	151	3	

FAC No-Cal Scale - 2008 Outdoor Champs

Contestant	Plane	FLT. # 1	FLT. # 2	FLT. # 3	Flt. Totals	Place
Phil Cox	Monocoupe 110	73	249	54	376	1
Mike Welshans	F4F Wildcat	120	74	100	294	2
Dennis Ruhland	Hawker Tempest	47	79	90	216	3
Dan Olah	Vagabond	54	49	58	161	
Frank Rowsome	B5N2 Kate	44	104		148	
Walt Farrell	Waterman Gosling	73	44	23	140	
George Lewis	Waterman Gosling	42	34	41	117	
Pres Bruning	Wildcat	25	26	56	107	
Stu Cummins	Me - 109	28	29	40	95	
J. B. M. Griner	P - 51D	38				

Low Wing Trainer - 2008 Outdoor Champs

Contestant	Plane	FLT. # 1	FLT. # 2	FLT. # 3	Flt. Totals	Place
Walt Farrell	Miles M-18	95	71	108	274	1
R. Zapf	T-27 Tucano	88	65	106	259	2
Jack Moses	Fiat G 46	64	63	120	247	3
Frank Rowsome	PT-19	92	42	83	217	
Jeff Runnels	T-34	117	44	47	208	
Norman Becker	Arado-19	60	87	48	195	
Dave Niedzielski	PT-19	47	96		143	

Modern Military Scale - 2008 Outdoor Champs

Contestant	Plane	# 1	# 2	# 3	Totals	Place
Walt Farrell	Mig -15	69	63	105	237	1
R. Zapf	F-84C	94	76	54	224	2
Walt Farrell	Skyraider	84	74	78	236	
Pat Murray	A1 Skyraider	47	48	120	215	3
Jeff Runnels	LA-15	45			45	

OT Rubber Stick - 2008 Outdoor Champs

Contestant	Plane	FLT. # 1	FLT. # 2	FLT. # 3	Flt. Totals	Place
Ted Teach	Gollywock	120	120	120	360	1
Jack Tisinai	Rirz Stick	106	120	120	346	2
Roger Moon	Smith Mulvihill	93	120	120	333	3
Stu Cummins	Gollywock	120	120	80	320	
Fred Wunsche	Gollywock	67	120	120	307	
M. Zand	Gollywock	120	81	72	273	
Ken Fryling	Gollywock	104	71	61	236	
Bob Erpelding	Gollywock	97			97	
George Lewis	Korda Stick	88			88	

OT Gas Replica - 2008 Outdoor Champs

Contestant	Plane	FLT. # 1	FLT. # 2	FLT. # 3	Flt. Totals	Fly off #1 65 sec's Target	Place
Ted Allebone	Interceptor	120	120	120	360	62	1
Bruce Finley	Brooklyn Dodger	120	120	120	360	83	2
Danny Kane	Strato Streak	120	120	120	360	127	3
Mark Rzacca	New Ruler	120	120	21	261		
Phil Cox	Diamond Denmore	60			60		

FAC Power Scale - 2008 Outdoor Champs

Contestant	Plane	FLT. # 1	FLT. # 2	FLT. # 3	High Flt. FAC"D	Scale Score	Bonus Points	1/10 of B	Total	Place
Ted Allebone	Walrus	120			82.5	61.5	30	3	177	1
Mike Midkriff	Port UK, PV - 2	120			82.5	58	25	2.5	168	2
Dave Rees	Domier Delphin 3	120			82.5	57	10	1	150.5	3
Ted Allebone	Sopwith Triplane	120			82.5	61.5	20	2	166	
Phil Cox	Curtis Robin	86			73	59.5	-	-	132.5	

Golden Age Scale - 2008 Outdoor Champs						
		FLT.	FLT.	FLT.	Flt.	
Contestant	Plane	# 1	# 2	# 3	Totals	Place
Frank Rowsome	General Aristocrat	86	119	108	311	1
Walt Farrell	Gadfly	101	76	78	255	2
Richard Zapf	Fairchild 24	83	73	88	244	3
Jack Moses	Poncellet Vivette	113	72	56	241	
Walt Farrell	Fleet Cannuck	82	103	54	239	
Richard Zapf	FW - Stosser	75	79	71	225	
Jeff Runnels	Piper J-3	68	60	57	185	
Stu Cummins	Taylorcraft 057	54	60	67	181	
Phil Cox	Cessna Phantom	60	55	62	177	
Les Birdsall	Fairchild 24	54	48	67	169	
Dave Niedzieski	Taylorcraft	55	73	34	162	
Pat Murray	Stinson 125	39	47	62	148	
Stu Weckerly	Skyfarer	79	60		139	
Pres Bruning	Fokker Universal	39	51	43	133	
Dave Rees	Vega	61	60		121	
Michael Zand	Allied Sport	37	35	29	101	
Marie Rees	Vega	65			65	
Mark Rzacda	Porterfield Collegiate	45			45	
Mike Welshans	Martin MO1	43			43	

OT Rubber Cabin - ROG - 2008 Outdoor Champs						
		FLT.	FLT.	FLT.	Flt.	
Contestant	Plane	# 1	# 2	# 3	Totals	Place
Mark Rzacda	F.A. Moth	120	120	120	360	1
Michael Zand	Victory	120	110	120	350	2
Ted Teach	Miss Canada	120	99	120	339	3
Stu Cummins	Miss Canada	90	120	101	311	
Jack Moses	Sparky	120	97	61	278	
Jack Tisinai	Hugelet Special	120	115	99	334	
Ted Allebone	Sparky	120	84	69	273	
Chris Boehm	Pacific Ace	52	93	95	240	
Ken Fryling	Jabberwock	47	77	97	221	
Dan Olah	Sparky	64	62	82	208	
Norman Becker	Miss Canada	69	67	60	196	
Dave Niedzielski	Korda Victory	74	70		144	
Dave Niedzielski	Erie Daily Times	61			61	

WW II Combat - ML - 2008 Outdoor Champs		
Contestant	Plane	Place
Pat Murray	Avenger	1
Dave Rees	Fulmar	2
Mike Midkiff	P-51	3
Paul Boyanowski	P-39 Airacobra	
Jeff Runnels	Hellcat	
Bruce Finley	Lagg 3	
Danny Kane	Judy	
David Niedzielski	Helldiver	
Jack Tisinai	Stormovik	
N. Becker	Barracuda	
Walt Farrell	????	
Chris Starleaf	P-51	
Richard Zapf	P-39D	

Greve Race - ML - 2008 Outdoor Champs		
Contestant	Plane	Place
Chris Starleaf	R4 Firecracker	1
Stu Weckerly	Mr. Smoothie	2
Walt Farrell	Mr. Smoothie	3
Mel Roth	Chambermaid	
Charlie Sauter	R4 Firecracker	
Jack Tisinai	Cauldron	
Richard Zapf	KR-R1	
Jack Runnels	Jackrabbit	
Danny Kane	Mr Smoothie	
Chris Boehm	Goon	

AMA P-30 2008 Outdoor Champs						
Contestant	Plane	# 1	# 2	# 3	Totals	Place
M. Rzacda	Kiwi	76	120	120	316	1
Stu Weckerly	Sparrow Hawk	96	120	64	280	2
Chris Boehm	Roger Dodger	120			120	3
Harrison Knapp	Super 30	DNF			0	

Thompson Race - ML - 2008 Outdoor Champs		
Contestant	Plane	Place
Walt Farrell	Altair	1
Chris Starleaf	CR-3	2
Jack Tisinai	Laird Thompson	3
Paul Boyanowski	Lockheed Altair	
Dave Rees	Time Flies	
Mel Roth	CR-3	
N. Becker	CR-3	
Danny Kane	CR-3	
Charlie Sauter	Mercoux Bromberg	
Richard Zapf	Mystery Ship	

PRIZE DONATIONS

We give thanks to all who gave prizes and if we left anyone off, let us know and we will put your name in the next newsletter. People were bringing us donations and they were not all written down. We give our heart felt thanks from the bottom of our hearts for all who donated.

Peanut Race Planes ML - 2008 Outdoor Champs		
Contestant	Plane	Place
Jack Tisinai	Horibert Hurricane	1
Richard Zapf	WLH - 1	2
Paul Boyanowski	Wittman Buster	3
Phil Cox	Mono 110	
Walt Farrell	Floyd Bean	
Stu Weckerly	Wittman Buster	
Jeff Runnels	R-5 Jackrabbit	
Les Burdsal	Jackrabbit	

Easy Built Models
Mark Fineman
Hannah's Runway
Thomas Designs
Mike Welsham
GHQ
Juanita Reichel
Ross Mayo

WW I Combat - ML - 2008 Outdoor Champs		
Contestant	Plane	Place
Walt Farrell	Albatross	1
Richard Zapf	Fokker D-VII	2
Chris Starleaf	Pomiko PE	3
Jim Millar	Green Kitten	
Mike Midkiff	SE-5	
Bob Gourdon	Fokker D-VII	
Danny Kane	Fokker D-VII	
Paul Boyanowski	Hannover CL III A	
Jack Tisinai	Neuport 28	

Ollie Benton sent in a copy of the celluloid he received from his local library which makes good windshields for your planes. The library use the celluloid to cover the books and throw the left over pieces away. Check with your library.

FAC Newsletter # 241-167

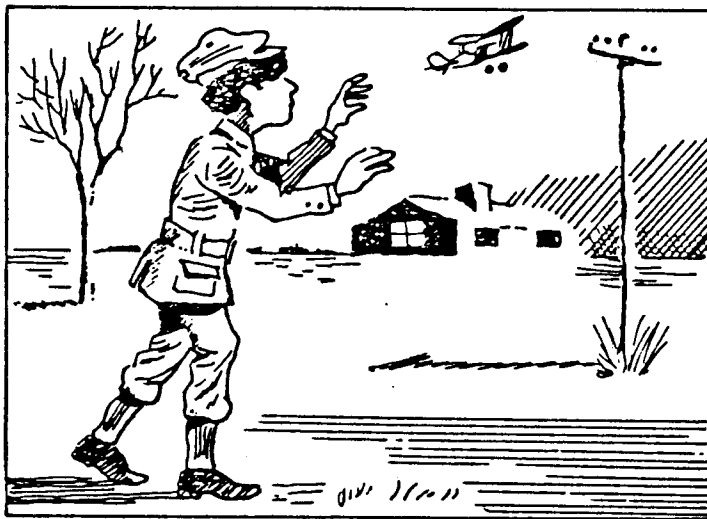
On page 13 of the current FAC Newsletter there are two small items under the heading "Strange WWII Stories" the incident (for the two items in fact refer to the same incident) is described in brief but helpful detail in "The Blitz then and now", volume 2, page 196.

The aircraft (Dornier Do 17Z-5, serial 7T+AH) was detailed to bomb Liverpool on the night of October 21, 1940. Electrical storms over Britain put the a/c W/T out of action and the captain decided to fly south towards France. Thinking they were almost out of fuel they decided to abandon the a/c while over Salisbury PlainAll four crew members (their names and ranks appear in the Blitz entry) landed safely and were taken into custody unhurt. Meanwhile the a/c, which had been set on an easterly course on automatic pilot, flew on for about 130 miles and landed on the mudflats of the River Stour near the village of Ewarton, Suffolk. The Blitz entry includes a good photo of the a/c in the mud.

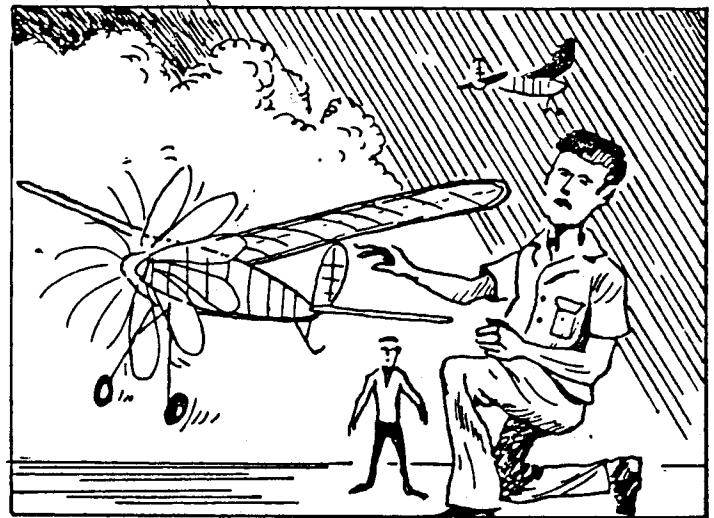
They Had What It Takes

THE YOUTHFUL JULIAN HUBERTS

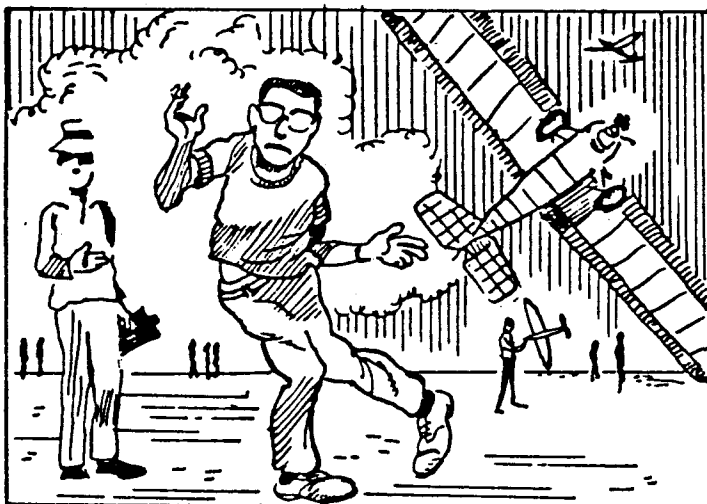
Pg.16.



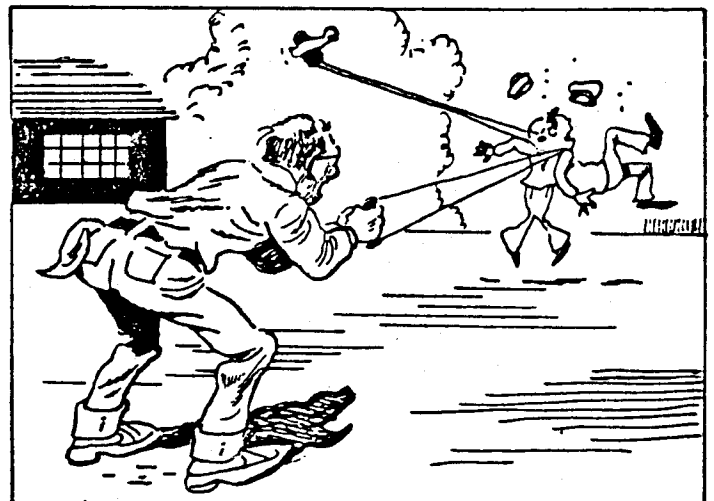
1- THE YEAR IS 1929. THE FIRST ISSUE OF *FLYING ACES* HITS THE STANDS AND YOUNG JULIAN IS SMITTEN. HIS FIRST FLIER IS A 12" S.E.S., DESIGNED BY GENIUS AVRUM ZIER.



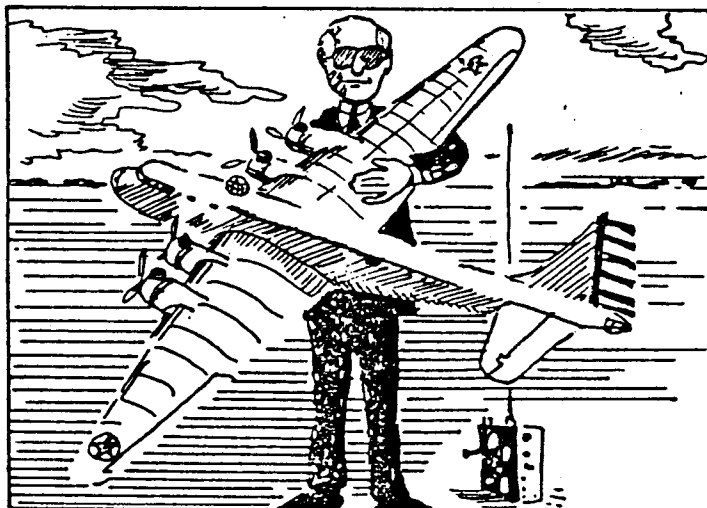
2- IN 1939, JULIAN ESSAYS TO BEAT DICK KORDA FOR A SPOT ON THE WAKEFIELD TEAM. HIS ALAN ORTHOF "DEBE" (JULY, 39, F.A.) PERFORMED CREDITABLY.



3- DEMOBILIZED, JULIAN SINKS HIS ARMY SAVINGS INTO A G.H.Q. ENGINE AND GOES TO THE 46' NATIONALS WITH AN "ORBIT" (JUNE 38, F.A.); WINS A TROPHY FOR THE WORST CRASH.



4- U-CONTROL WAS THE RAGE IN 1956. HUBERTS, DURING THE CARRIER EVENT, MISCALCULATES, SERIOUSLY DISORDERING A LT. COMMANDER & A SEAMAN 2ND CLASS.



5- THE AGING BUT LOYAL F.A. FAN SPENT 4 YEARS BUILDING THIS B-19 FROM H. STRUCK PLANS (DEC. 1945) 18 CHANNELS- EVERYTHING WORKED BUT THE 4 JAP SAKITUMI ENGINES.



6- TODAY MR HUBERTS IS AN OUTSTANDING FAC CLUB MEMBER. HIS COMPLETE COLLECTION OF *FLYING ACES* IS SUPERR. HE IS A WORLD AUTHORITY ON P-NUT SCALE.

2008 Gathering of the Turkeys

Pensacola, Florida — 11, 12 & 13 October 2008

Sponsored by

AMA Sanction #08-1643



AMA Membership Required

The Gulf Coast Aeroplane Works, FAC Squadron #46

Presents

An invitation to serious FAC flyers to fly on a mile square of soft mowed grass, visit the incredible National Naval Aviation Museum and enjoy sugar white beaches

CONTEST DIRECTOR: George White, 5928 Hermitage Drive, Pensacola, FL 32504 : E-mail: White76@cox.net
ASST CD FOR FAC EVENTS: Mike Midkiff, 125 Heneretta Drive, Hurst, Texas 76054: E-mail: Mmid149421@sbcglobal.net

FLYING SITE: Navy Helicopter Field Site 8A. Exit Interstate 10 at Exit 5 onto US Highway 90A West. Go 1.7 miles to the gate.

Ten FAC Events (plus a bunch of AMA, SAM and NFFS events)

Thompson/Greve Combo
Rubber Scale
Embryo
FAC Peanut

Two-Bit Rubber
Dime Scale
Jet Cat Scale
Golden Age Civil

WWI Mass Launch
WWII Mass Launch
Old Time Rubber

Check our Website at www.pensacolafreeflight.org for more details and application form



BARRON FIELD AIR RACES
OCTOBER 25-26, 2008

FLYING ACES CONTEST IN WAWAYANDA, NY

Saturday, October 25th

9AM-5PM

- * FAC Scale
- * Peanut Scale
- Embryo
- No-cal
- Contra Rotating Prop
- Oldtime Plan/Kit Scale
- Fiction Flyer Mass Launch
- Golden Age Racers Mass Launch
(Greve & Thompson combined)
- WWI Mass Launch (biplanes)

* flown either day

Entry fee is \$20. You must have a valid AMA card.

Contest Directors:

Tom Hallman 610-395-5656, John Houck 610-488-6235

Directions: www.hallmanstudio.com/wawamap.jpg

Sunday, October 26th

9AM-3PM

- * Jumbo Scale
- * Power Scale
- Modern Age Civilian
- Dime Scale
- WWII Mass Launch
- Modern Military Mass Launch
- Golden Age Scale
- Flying Horde (any scale model)
- Harvey Wallbanger Award

Col. Lee D. McMahon (Ret.) is looking for a 3-view on Bill Barnes Aircraft. He is willing to pay for a Xerox copy for your time and effort. Contact the Colonel at 13629 Ardis Avenue, Bellflower, CA 90706.

We had 19 names of our FAC family that has passed away this year who were honored at the final flight. And have received one since. God bless each of these families and pray they will find peace.

Lin Reichel
Nate Sturman
Colin R. Jones
Ed Stowl
Brian Gothard
Bill Harvey
Charlie Roberts
Doug McHard
Viggo Taudevin
Dick Dunmire

Percy Mayo
Bob Mosher
Joe Chizmadia
Bill Bell
Ken Mark
Bob Lieber
Doug Barber
Ralph Dodsworth
Harvey Poirier
Michael Kent

FAC GENESEO SPONSORS

We want to thank the following event Sponsors for their support at this year's contest at Geneseo, NY. Their help Each year contributes mightily to insure that the contest is successful. And this year's was better than in previous years.

McCook Field Squadron

Bernard Gillespie

Phil and Jerry

Vic & Tena Nippert

Ray Rakow

Ed McQuaid

Fran Ptazkiewicz

Ross Mayo

Model Airplane Plan Service

Thomas Designs

Charles Schultz

Ronny Gosselin

DC Maxecuters

Dave Diels

FAI

Cloud Busters

Stealth Squadron

Bob Schlossberg

Bruce Foster

Gizmo Geezer

Shorty's Basement

Charles Wenlock, Jr

CFFS

Jeff Reynolds

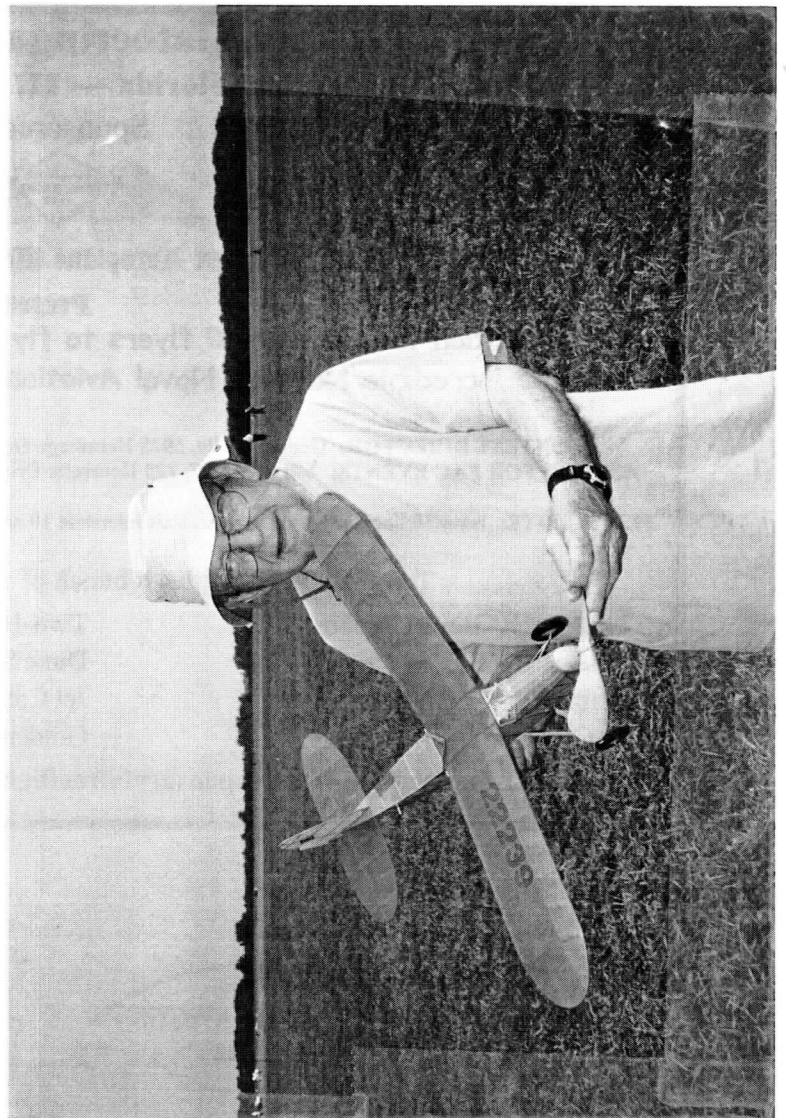
Easy Built Models

Mike Nassise

Wally Farrell

Bill Werner

Eagle Squadron



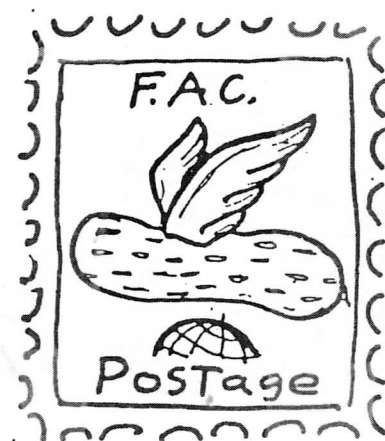
Don Srull flew his Cessna CR-3 in the Thompson Mast Launch. (top)
Chris Starleaf also flew his Cessna CR-3 in the Thompson mast launch.

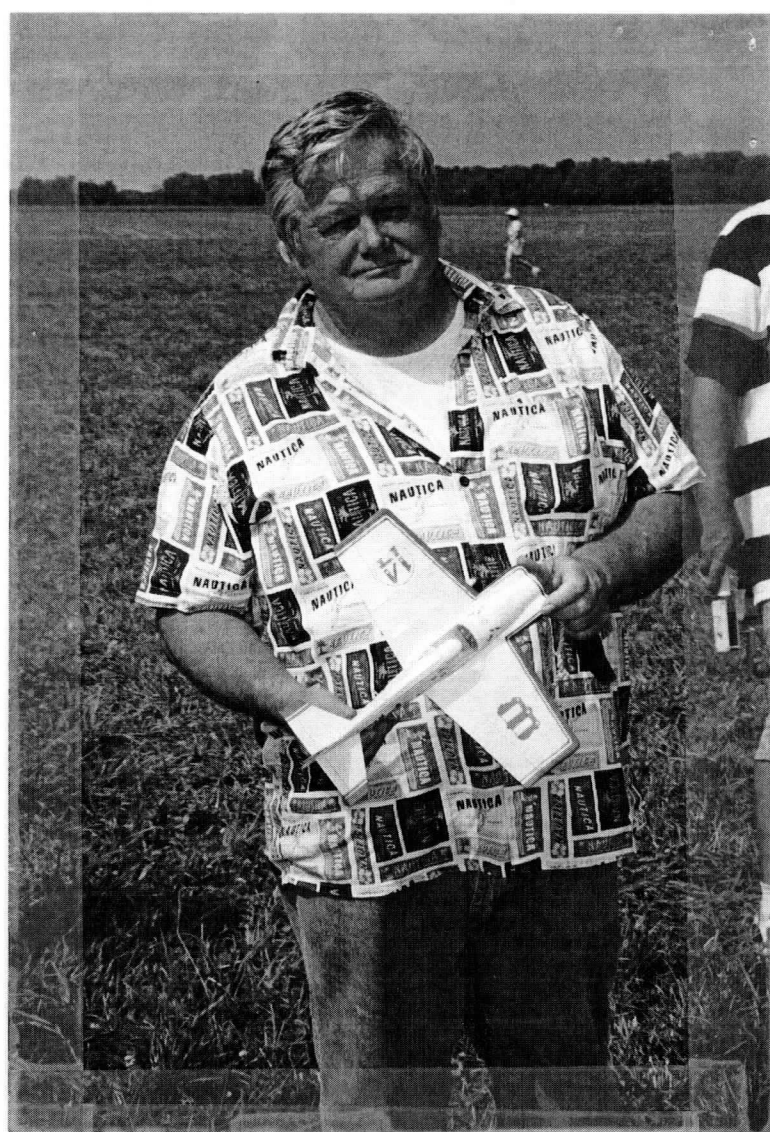
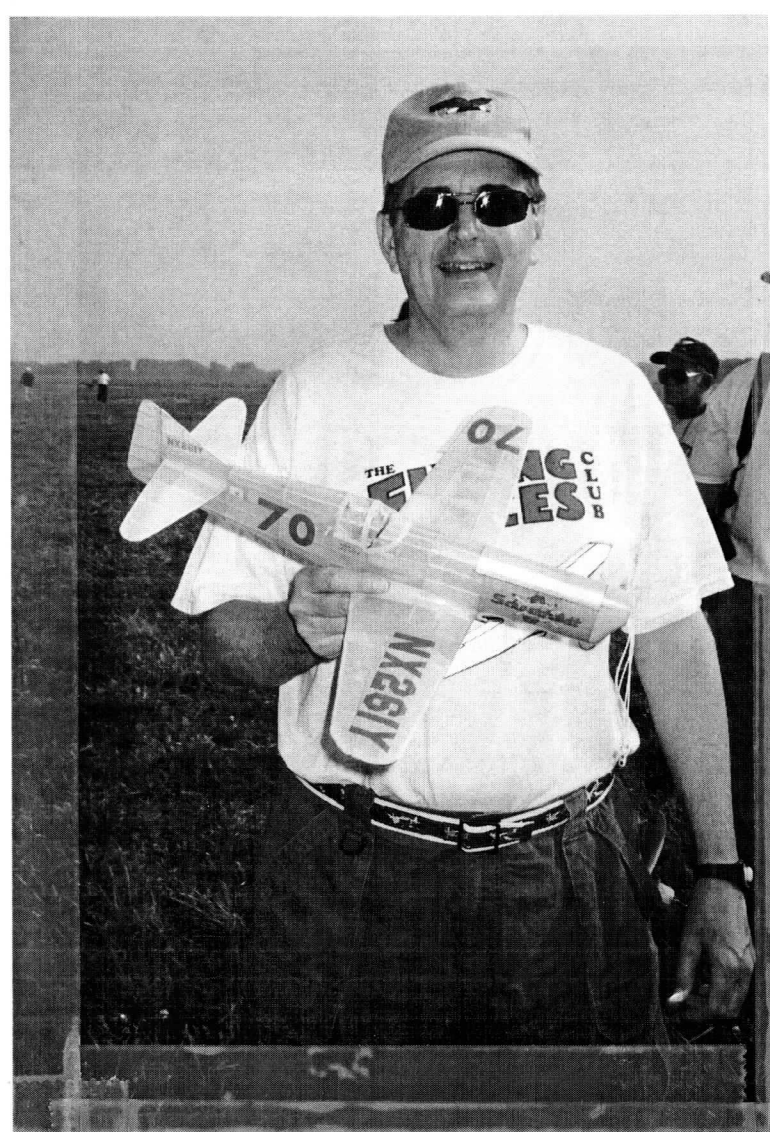


On the right is Tom Nallen with his Potox 34 "French Design". On the left is Gene Smith with his Mr. Smoothie.



Dave Stott (our founder)
And his Giant Scale
Taylorcraft.





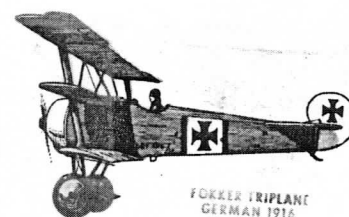
Charlie Sauter on the right with his Keith Rider R-4 Firecracker he flew in the Greve Race.

Goodyear racer

"Ole Tiger" Danny Kane flew in the Goodyear Race.



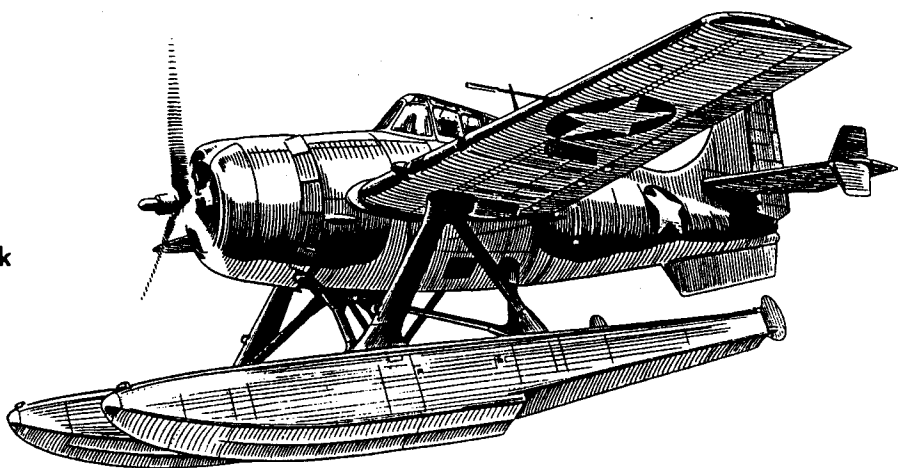
Orv Olm and George White
In the Thompson race with
their Cessna's CR-3. Great
Models .



'Wet' Fighters of World War Two

Ever realize that there were so many floatplanes flying around back in the late '30's and early '40's? Looks like the Seabees did 'em in!

BY FRED L. WOLFF



The story of "wet fighters"—floatplane fighters employed operationally or tested by combatants during World War Two—is the story of losers.

If WW/2 had been fought ten years earlier, they might have had some effect. If the Navy's Seabees had performed less than miracles, they might have proved useful. If landplane design had stayed in its rut, then seaplanes would have been able to match performance even while dragging that float through the air. And if seaplane designers had taken time and effort to develop a retracting float system, they might have been able to give landplane designers a hard time.

But none of these "ifs" ever happened, and so the seaplane fighter had but a short lifespan in the air arms of France, Germany, Great Britain, Italy, Japan and the United States.

Seaplane-mentality fastened itself upon designers in the 1930's, due partly to the influence of the Schneider Trophy races and partly to the vast quantities of water visible from the windows of many aircraft factories.

Besides, in many countries the Navy was the senior service, had the money, the influence, and loved the water. Ergo a water-based fighter was infinitely desirable.

There were valid reasons. Water-based fighters didn't need permanent land bases . . . give them a sheltered cove and a motorboat and they were in business. Their runways couldn't be bombed out of existence. Logistics was a water-borne pipeline. Performance could match that of their land-based contemporaries—more than half of which were biplanes at the time, anyway. And adding the drag of a float or two to that of an already dirty biplane didn't hurt the performance that much. Besides, a new floatplane could be made aerodynamically cleaner than an old biplane landplane.

So the designers thought. And so did the military officers who wrote the requirements.

In floatplane fighters for WW/2, the French were first in and, due to the fortunes of war, first out. The Italians, although long wedded to the water,

got smart early in the war and phased out their floatplane fighters. The Germans produced one type right through the war, got others to produce, it and used it.

The Japanese developed a number of special purpose floatplane fighters, including the only one to start life in that role and later to be converted to a landplane.

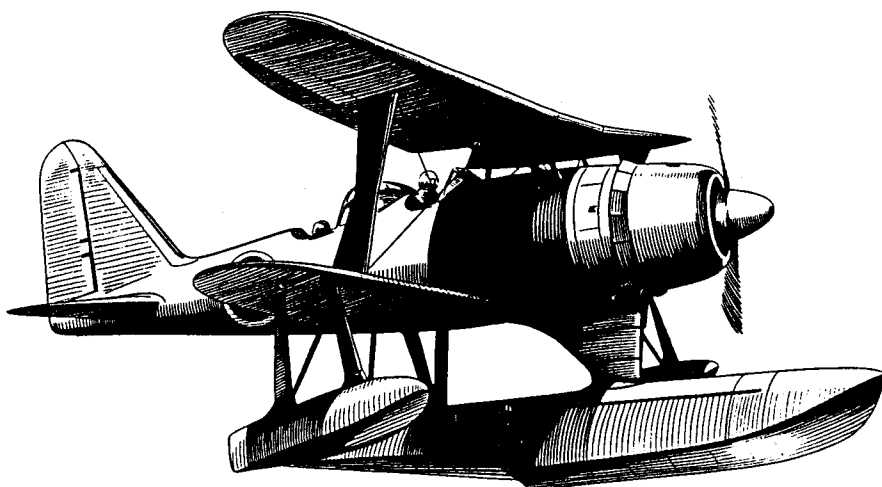
For reasons which probably had to do with the traditional conservatism of the U.S. Navy and its panic at finding the Japanese had floatplane fighters, this country got into the act via an abortive attempt to convert a fine airplane. The drag of the fat floats didn't make that fighter any better.

In retrospect, it is difficult to understand the over-emphasis on floatplane fighters during the second World War. There had been very little service experience with any successful type of floatplane fighters. True, larger patrol boats had limited success until someone discovered the simple expedient of lengthening concrete runways to make

(Continued on page 72)

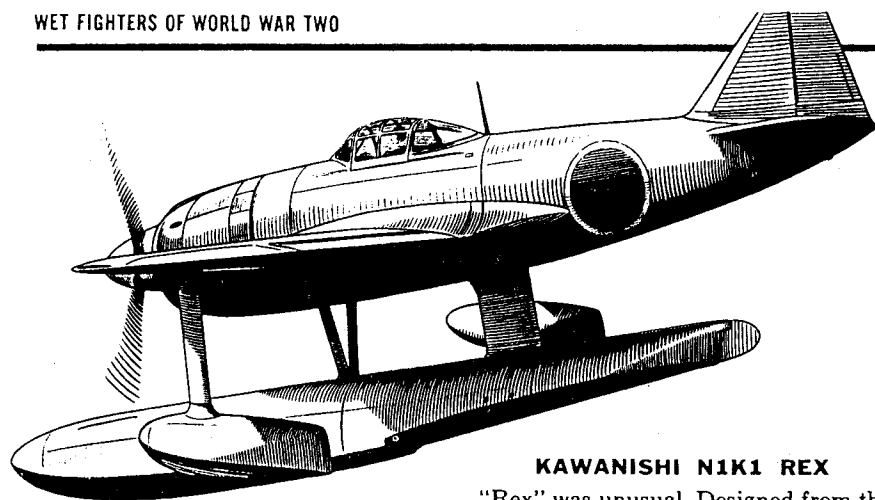
MITSUBISHI F1M2 PETE

A two-seater biplane floatplane, "Pete" was designed to do the classical job of floatplanes in the 1930's: Be the eyes of the fleet. Between the time the first prototype flew in June 1936 and the production version was ordered in August 1938, the design changed markedly. New straight-tapered wings replaced the original elliptical panels. The fin grew by 85%, the rudder by 30%. The floats were enlarged. Wing dihedral was increased. The Hikari I engine was replaced by a Mitsubishi Zuisei 13, rated at 875-hp. Pete was deployed as a fighter in the south Pacific and Aleutian theaters. It charged into combat with paired 7.7mm machine guns firing forward and the



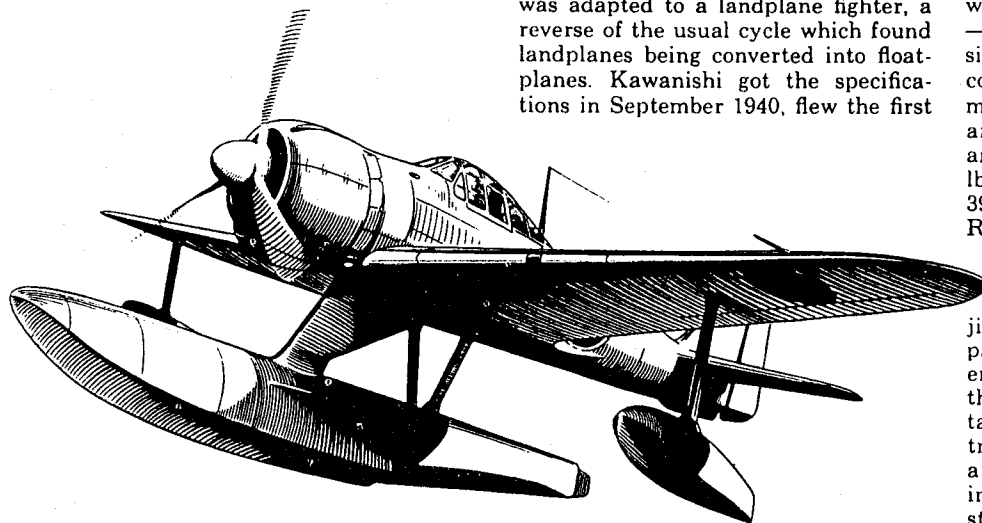
observer blazing away with a single 7.7mm m.g. on a flexible mount in the rear cockpit. About 700 were built during the war years and they served

the Japanese Navy well in a variety of jobs. Pete had a maximum speed of 230-mph at 11,290-ft. It weighed 5622-lb. Wingspan was 26-ft 1-in.



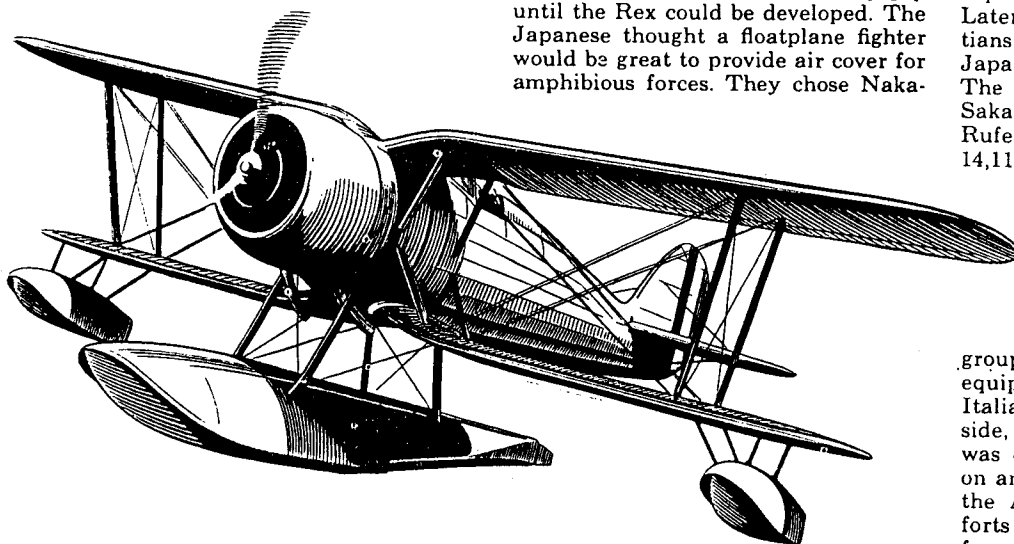
KAWANISHI N1K1 REX

"Rex" was unusual. Designed from the start as a floatplane fighter, it later was adapted to a landplane fighter, a reverse of the usual cycle which found landplanes being converted into floatplanes. Kawanishi got the specifications in September 1940, flew the first



NAKAJIMA A6M2-N RUFÉ

Basically a floatplane version of the Mitsubishi A6M2 Zero-Sen, this Nakajima seaplane fighter was a stop-gap until the Rex could be developed. The Japanese thought a floatplane fighter would be great to provide air cover for amphibious forces. They chose Naka-



I.M.A.M. Ro.44

Two-seat fighters being what they were, and biplane two-seaters being worse, and floatplane biplane two-seaters being perhaps the nadir of air weaponry during World War Two, it is hardly surprising that the Italians

brought out a single-seat fighter version of the Ro.43. They changed the armament to a pair of 12.7mm machine guns, lightened the aircraft by a few pounds, and picked up some points in performance. First flight of the Ro.44 was in 1936. By the time the war was rolling, the Italians had one

prototype May 6, 1942. The original design specified retracting floats and counter-rotating props driven by a new engine, the Mitsubishi Kasei 14, developing 1460-hp. But the retracting floats were changed to a fixed configuration before the first prototype was built; the counter-rotating props were dropped on the second prototype because of their complexity. By December 1942 Rex was ready for production; deliveries were being made in significant quantities within 12 months. But by that time, the changing face of Pacific combat made it apparent that Rex wasn't king, after all. As 1944 rolled around, production was phasing out in favor of the land-based version: N1K1-J Shiden. Only 97 Rex types were built. With the Kasei 13 engine—different only in that it drove a single-rotation propeller instead of counter-rotating ones—the Rex could move at 302-mph at 18,700-ft. It was armed with two 7.7mm machine guns and two 20mm cannon, weighed 7716-lb normally, and had a wingspan of 39-ft 4½-in (exactly the span of the Rufe that it replaced).

jima to do the job because the company had previous floatplane experience. Nakajima engineers started with the airframe of the Zero, added a little tail area and a ventral fin, and a central float braced by a single pylon and a pair of V-struts. Outboard stabilizing floats were mounted on single struts from the wings. The project began at the end of 1940; first prototype was finished in December 1941; production began the following April. By the end of the year, U.S. forces were reporting "Rufe" at Guadalcanal. Later, Rufe saw action in the Aleutians and over the home islands of Japan. Nakajima built a total of 327. The powerplant was a Nakajima Sakae 12 rated at 940-hp. With that Rufe had a top speed of 270-mph at 14,110-ft. Wingspan was 39-ft 4½-in.

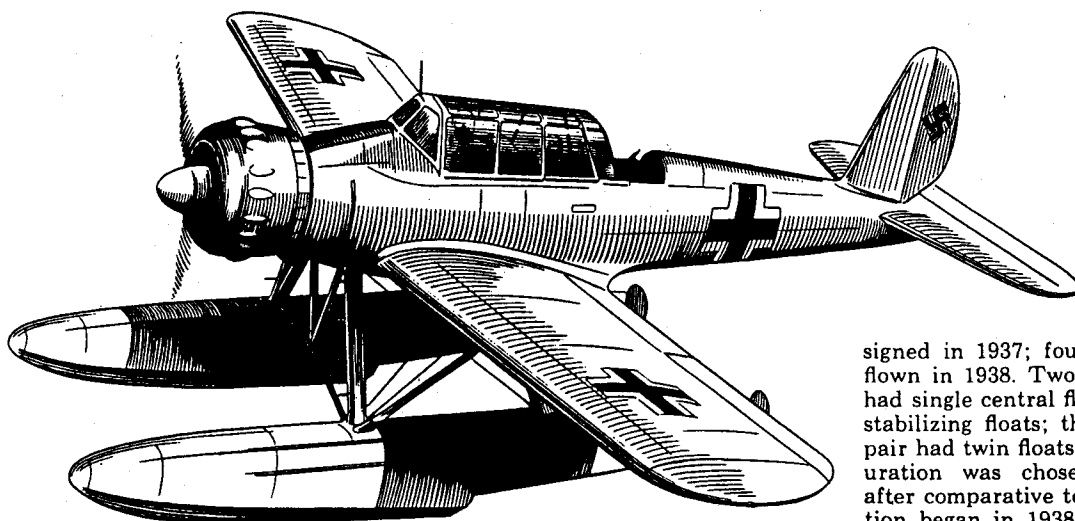
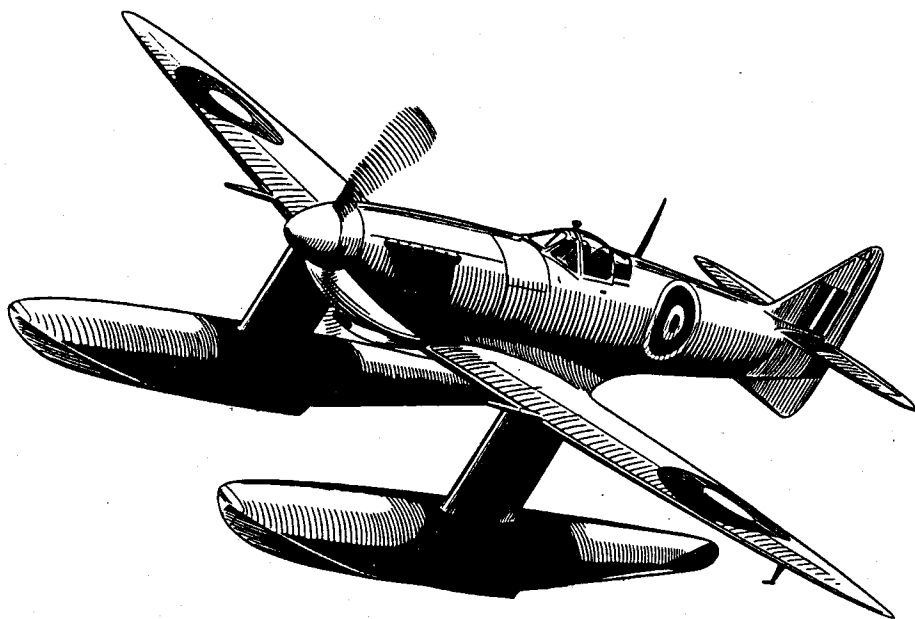
group plus one naval fighter squadron equipped with the type. When the Italians entered the fracas on the Axis side, the service strength of the Ro.44 was down to eight aircraft, all based on an island in the Aegean Sea. After the Armistice, when truly heroic efforts by Italian airmen built an air force out of almost nothing to fight with the Allies, six Ro.44 were put in flying condition and assigned to two squadrons. The Ro.44 had a top speed of 193-mph, powered by its Piaggio P.X.R. radial engine of 700-hp; it weighed 4898-lb at takeoff. Basic dimensions were identical to those of the Ro.43.

Battle of Britain was on, and the first floatplane conversion was converted back to a standard Spitfire II. A parallel project to make a floatplane version of the Hurricane was not carried beyond partial construction of a prototype. Type 355 started as a standard Spitfire Mk. VB, had Supermarine-designed floats mounted on cantilever struts attached to the main wing spars five feet outboard of the aircraft centerline. Additional fin areas and a ventral fin were added and the air intake was moved forward to keep it out

of the spray. Powerplant was the Rolls-Royce Merlin 45 rated at 1470-hp. Best performance was 324-mph at 19,500-ft. Wingspan was 36-ft, 10-in, gross weight was 7580-lb. Prototype was registered W3760. Water and flight tests showed little change in handling qualities compared to a standard Spitfire, and resulted in an order for twelve conversions. Two were completed before the project was dropped in favor of doing the same thing with the Spitfire IX, which had better performance.

SUPERMARINE SPITFIRE IX FLOATPLANE

Third in the series of Spitfire floatplanes, this conversion also was a Folland Aircraft effort. The basic airplane was a standard Spitfire Mk. IX with a redesigned fin and floats carried over from the abandoned Spitfire VB conversion program. The prototype Spitfire IX conversion carried the registration MJ892. According to Supermarine chief designer Joseph Smith, a "limited number" of these conversions were built. Some contemporary accounts said this conversion had a tendency to waddle from one float to the other just at unsticking speed, but aside from that, there were few handling changes from a standard Spitfire. This conversion used the Rolls-Royce Merlin 61, rated at 1720-hp, which increased the top speed to 377-mph at 19,700-ft, more than 50-mph faster than the Spitfire VB conversion, and more nearly matching the performance of in-service land-based Spitfires. The need for this floatplane fighter diminished as carrier-based aircraft performance improved, as more carriers became available, and as land-based fighters grew in range capability. The Spitfire IX floatplane never became operational.



ARADO Ar.196

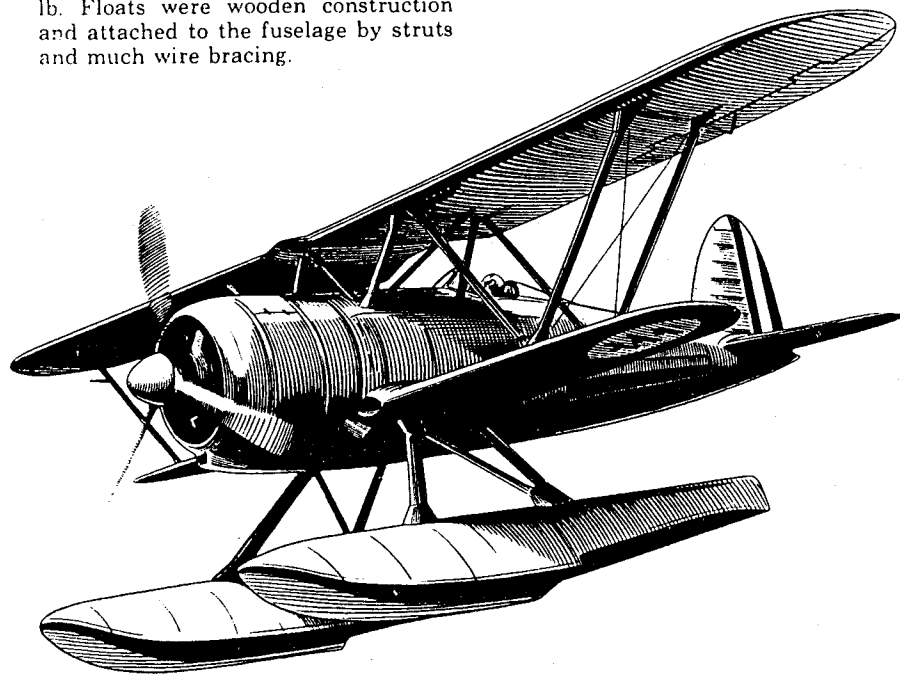
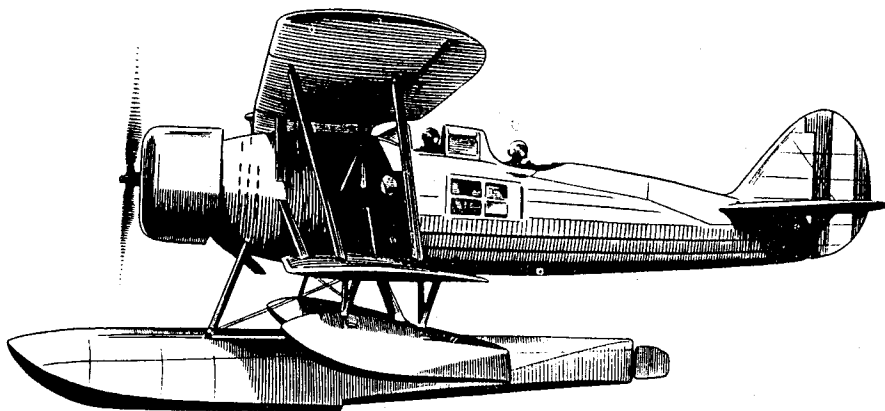
This versatile aircraft started life as a reconnaissance floatplane for the battleship boys. By the end of its production run of 493 units, it had been pressed into service as a fighter-bomber, an interceptor, an anti-submarine hunter-killer, a patroller, and a convoy escort. It was built by France

and the Netherlands besides the parent firm of Arado Flugzeugwerke. Most of the production run was the Ar.196A-3 version, which carried a pair of wing-mounted 20mm cannon plus a single 7.9mm machine gun firing forward, and a pair of 7.9mm machine guns mounted for the second crew member. The Ar.196 was de-

signed in 1937; four prototypes were flown in 1938. Two of the prototypes had single central floats with outboard stabilizing floats; the other prototype pair had twin floats. The latter configuration was chosen for production after comparative testing, and production began in 1938. After the fall of France, they were built at St. Nazaire (13 in 1942, 10 in 1943). The Fokker factory began production in 1943 (11 that year, 58 in 1944). Arado quit building the Ar.196 in 1943 after delivering 83 that year. The floatplane was powered by BMW 132K radial engine rated at 970-hp. Best speed was 193-mph at 13,120-ft. The Ar.196A-3 weighed 8200 lb at takeoff. Its wingspan was 40-ft 10½-in.

I.M.A.M. Ro.43

Two basically identical biplane floatplanes were developed and operated by the Italians in time for World War Two. Both drew on the earlier Ro. 37bis reconnaissance landplane. First of these was the Ro.43, a two-seater for general work in gunnery spotting and patrolling from battleships. The armament was a little weak, but traditional: A single fixed 7.7mm machine gun mounted to fire forward, another in a flexible mount for the gunner. The Ro.43, operational with the Italian fleet when Italy entered the war, stayed with fleet units through the duration of the fighting on the Axis side. The plane was powered by a Piaggio P.X.R. radial engine of 700-hp, which produced a top speed of 186-mph at 8200-ft. Wingspan was 37-ft 11 $\frac{5}{8}$ -in; gross weight was 5291-lb. Floats were wooden construction and attached to the fuselage by struts and much wire bracing.

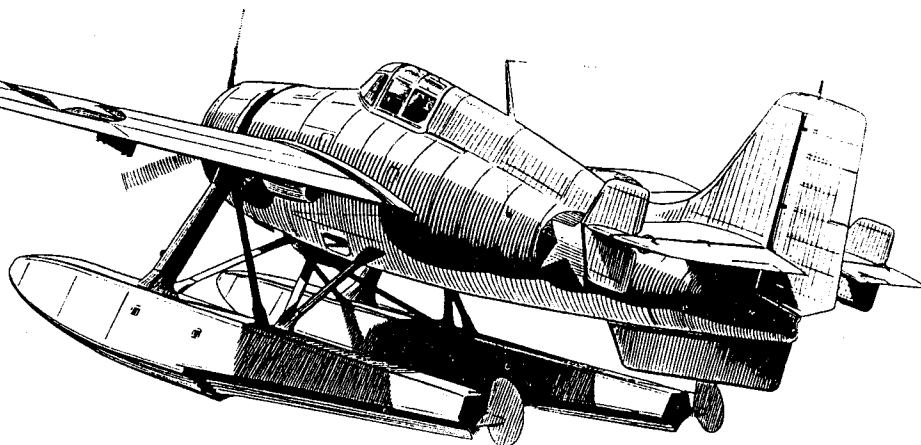


FIAT I.C.R.42

Fiat's floatplane entry was, like so many others, a simple conversion of an existing fighter—the biplane C.R.42—to a water-based aircraft. In 1939 there were still some possible uses for a limited number of floatplanes, and these gave birth to the I.C.R.42. The prototype, converted from a standard production C.R.42 by a Fiat subsidiary, flew in 1940. There were rumors that the Italian Air Ministry would order 40, but these came to nothing. The prototype was finished, tested and forgotten within a short time. Powered by a Fiat A74R.C. 38 radial engine rated at 870-hp, the I.C.R.42 had a top speed of 262-mph, at 13,120-ft (compare that with the Grumman "Wildcatfish"). It weighed in at 5346-lb with its one 7.7mm and one 12.7mm machine gun. Wingspan was 31-ft 9 $\frac{3}{4}$ -in.

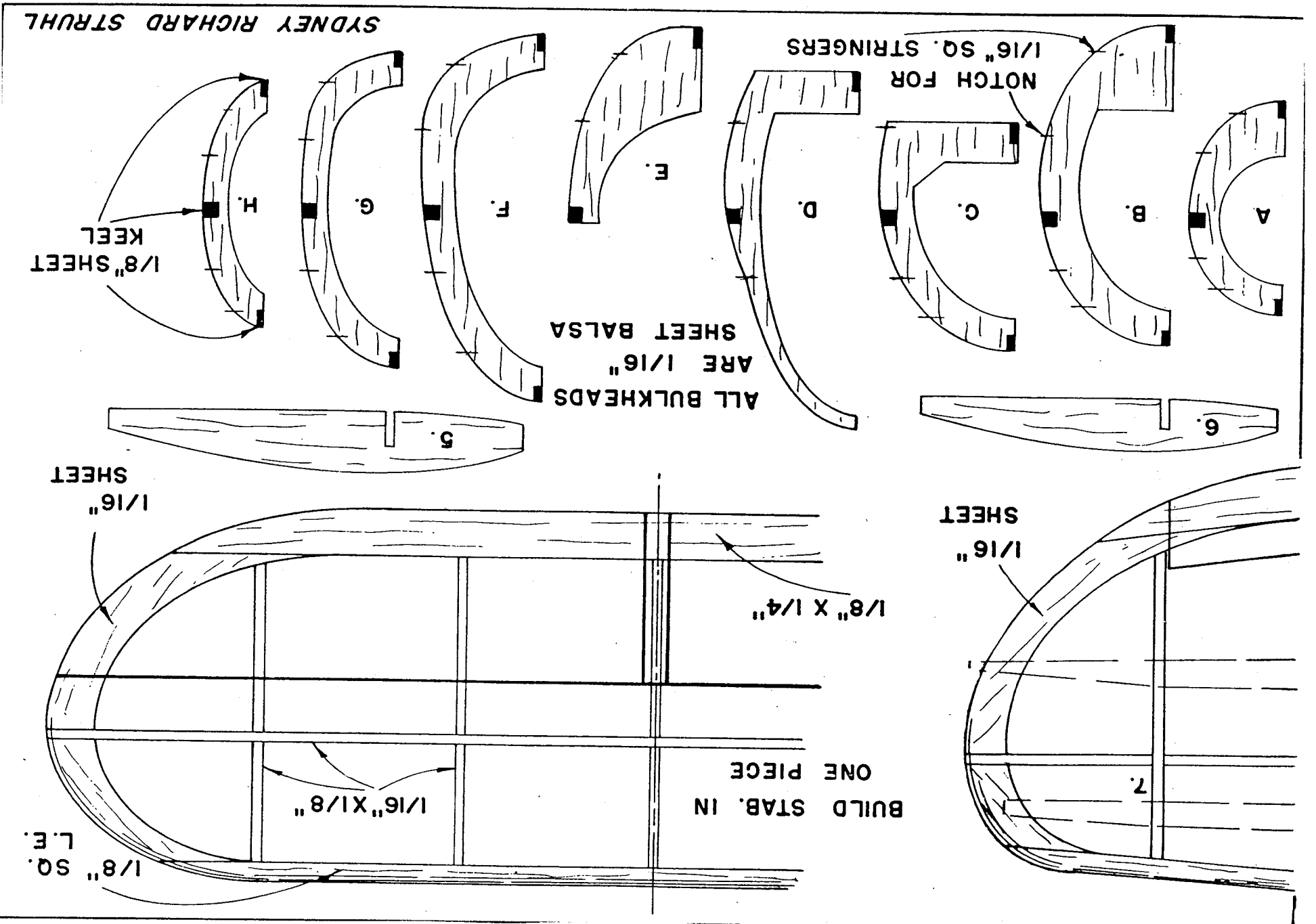
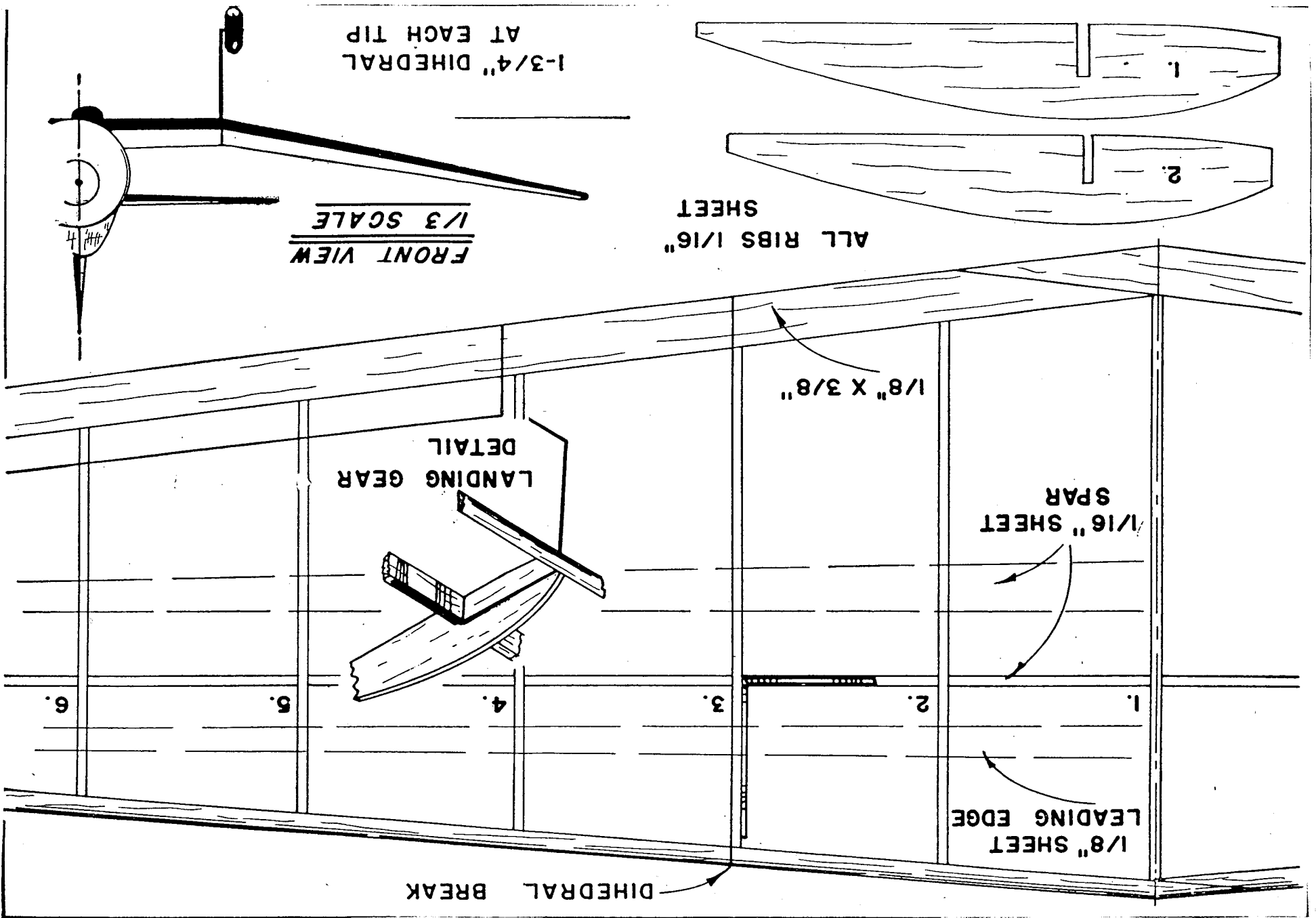
GRUMMAN WILDCATFISH

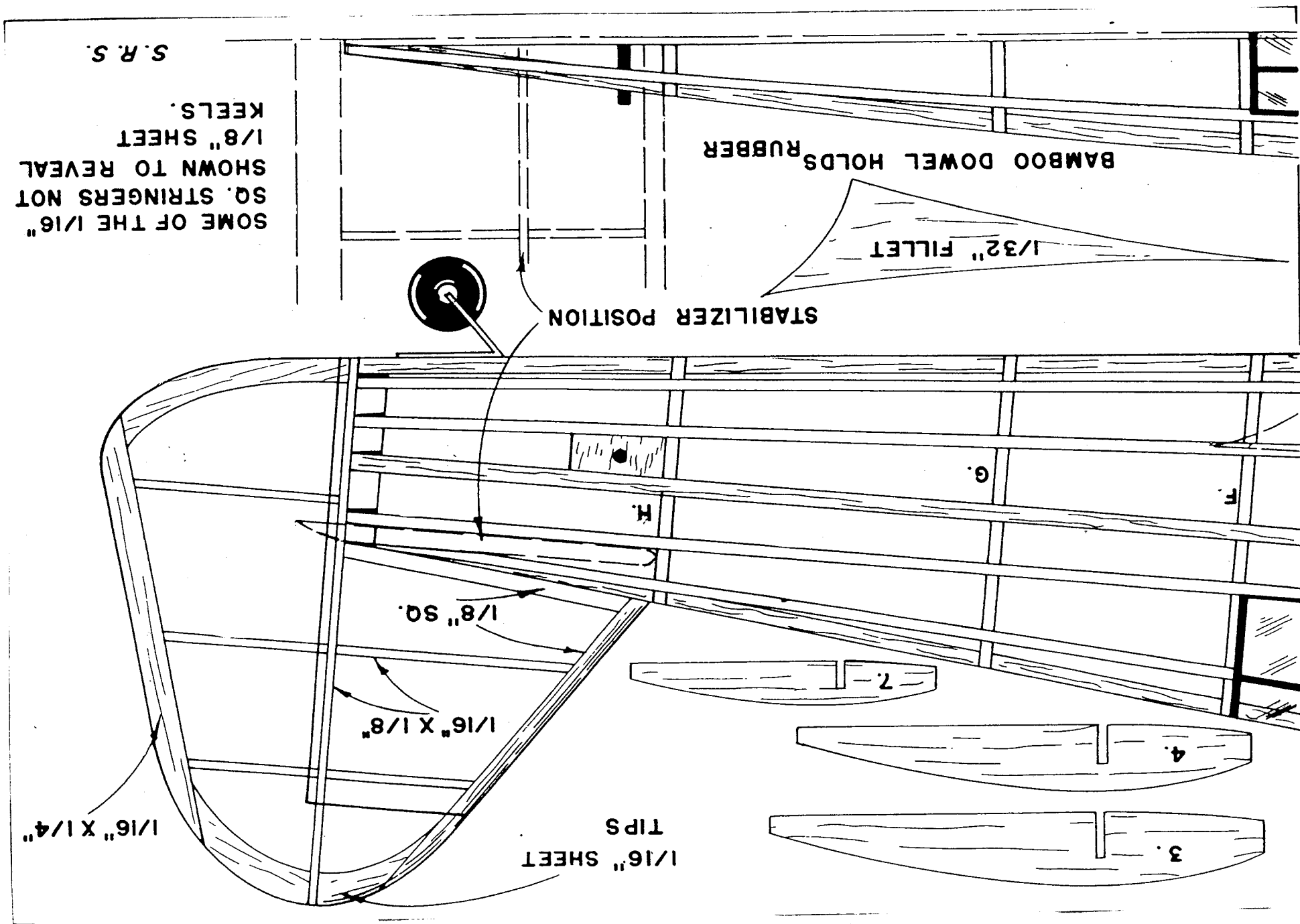
Taking their cue from the Japanese use of floatplanes in the south Pacific and Aleutian theaters, the U.S. Navy sponsored conversion of a standard Grumman F4F-3 Wildcat to a floatplane fighter. Work was done by the Edo Corp., who started the project in the Fall of 1942 and finished the twin-float conversion early the following year. Auxiliary rudders were added near the tips of the horizontal tail to maintain directional controllability comparable to the standard Wildcat. First flight on Feb. 28, 1943 showed the need for additional directional stability so a constant-depth ventral fin was added. Weight penalty of the floats and strut bracing was about 500-lb, an acceptable figure in an airplane



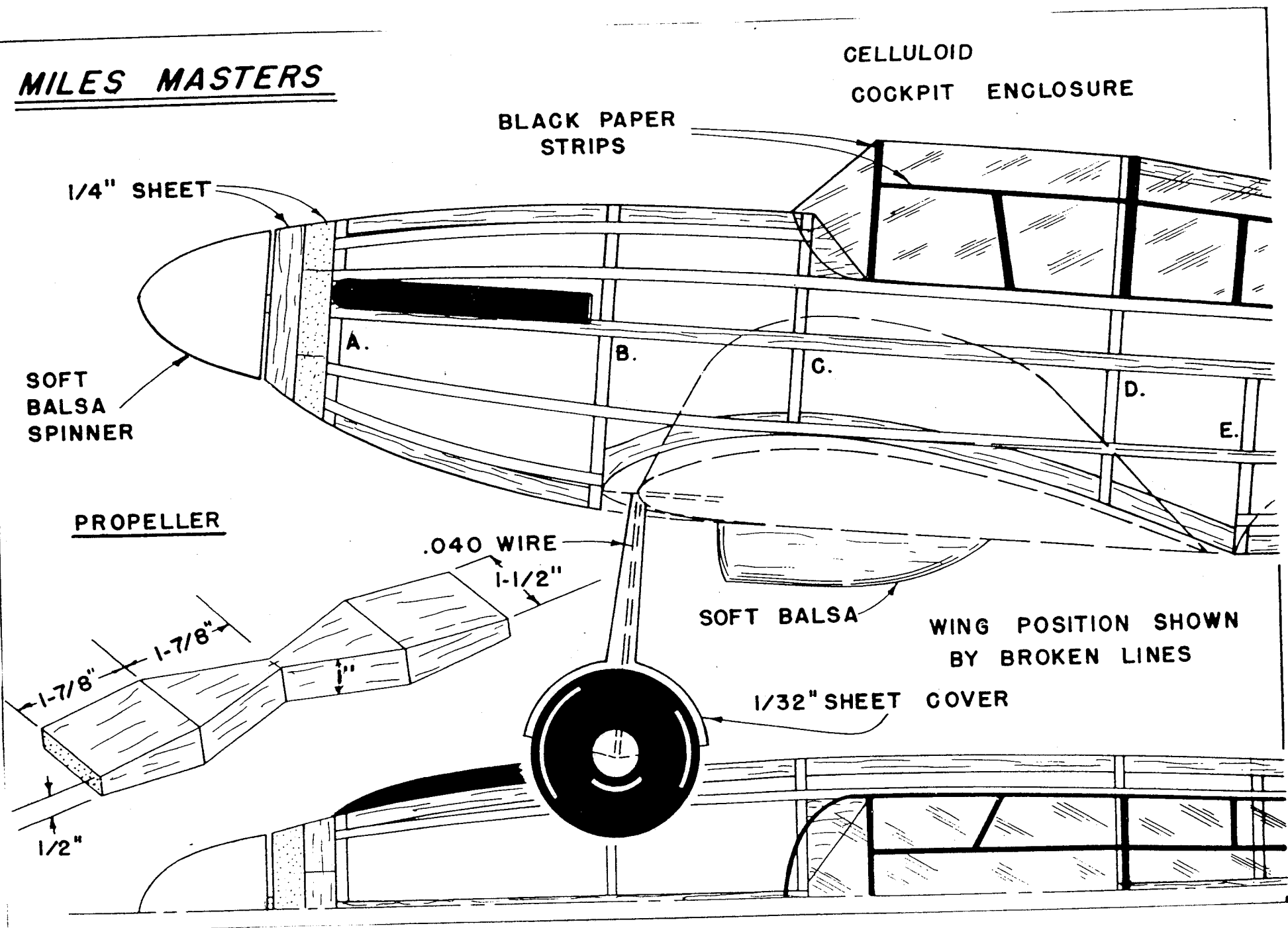
whose gross weight was 7500-lb. Take-off took about 34 seconds from the water, which wasn't so bad either. But the speed of the F4F, never of record dimension, was reduced by more than 60-mph, from 331-mph at 21,300-ft to

266-mph at 20,300-ft. Increased carrier availability and the phenomenal performance of the Navy's Seabee units which could hack out a jungle airstrip in short time eliminated the need for floatplane fighters in the U.S. Navy.

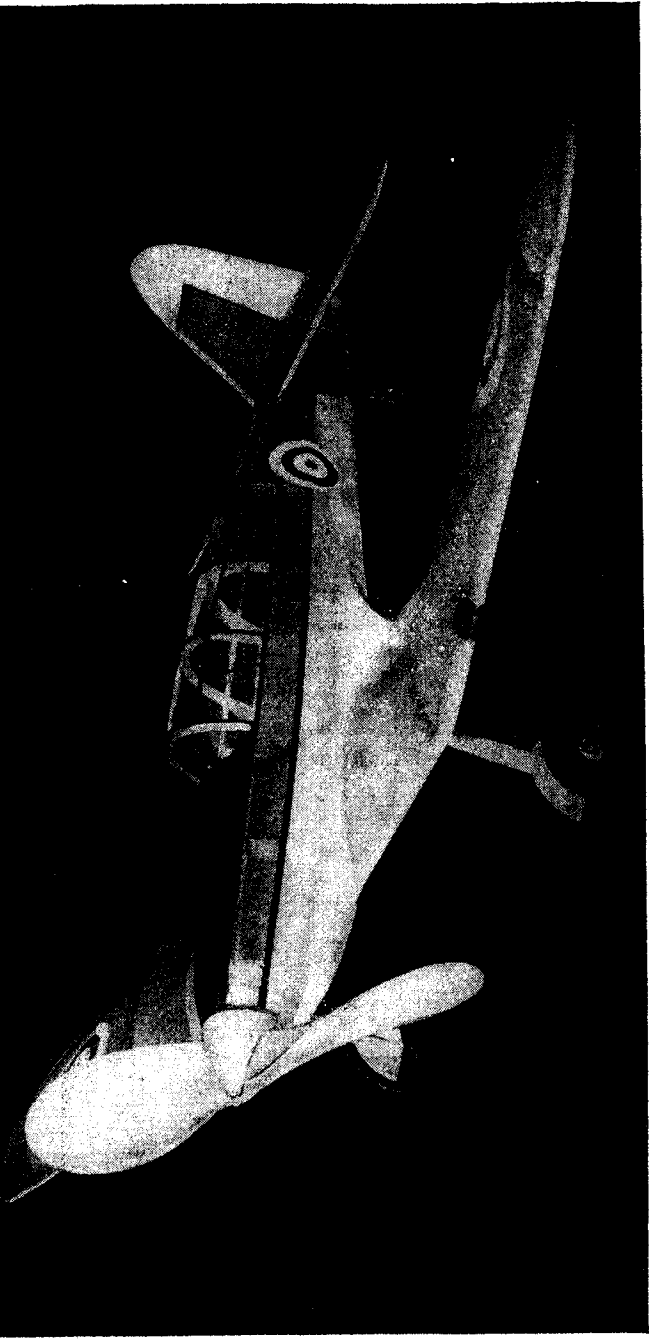




MILES MASTERS



FLY THIS MILES MASTER



How you can build and fly a model of Britain's fastest training plane

by **SYDNEY STRUHL**

AS OUR flying scale feature this month we present the ship in which British fighter pilots receive their final instructions, the Miles Master. The Master is the fastest single engine training plane yet produced, a machine specially designed to provide familiarity with all the advanced scientific equipment and handling characteristics of high speed pursuit planes.

When the student-pilot completes his final stages of training in the Miles Master he transfers over to a Spitfire or new Hurricane with no sudden change of new technique. He is, thanks to this training plane used, almost immediately at home in the fastest of operational pursuit planes.

In all but top speed, the Master's performance is comparable to that of present day fighters; and the flying and handling characteristics are very similar. For example, the wing loading of the Master is the same as the famed Spitfire.

Construction is almost entirely of wood, of nearly 30,000. Range is estimated to be

500 miles. The Master has a wingspan of 39 feet, is 30 ft., 8 in. long, and measures 10 ft. in overall height.

A model of the Miles Master is interesting to build and fly. Structural simplicity and efficient aerodynamic design combine to produce a low-wing model with flight capacity comparable to many high-wing models, flying steadily with plenty of power and the appearance of a full size plane.

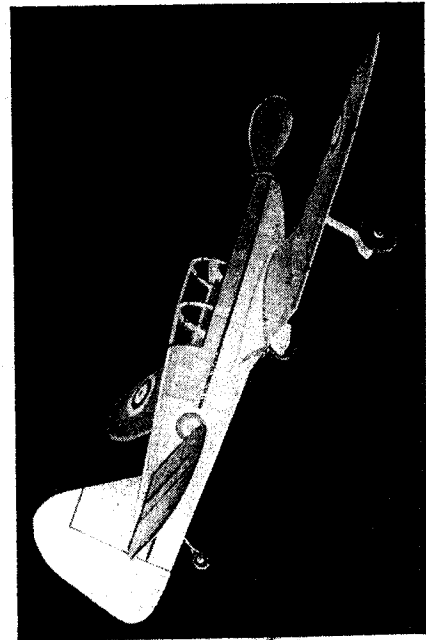
Before actual construction of the model study the plans carefully to become familiar with the details. With a clear picture of each detail in mind, gather all the necessary material and begin.

FUSELAGE: The manner of fuselage construction calls for use of four keels cut to the required shape from 1/8" sheet balsa.

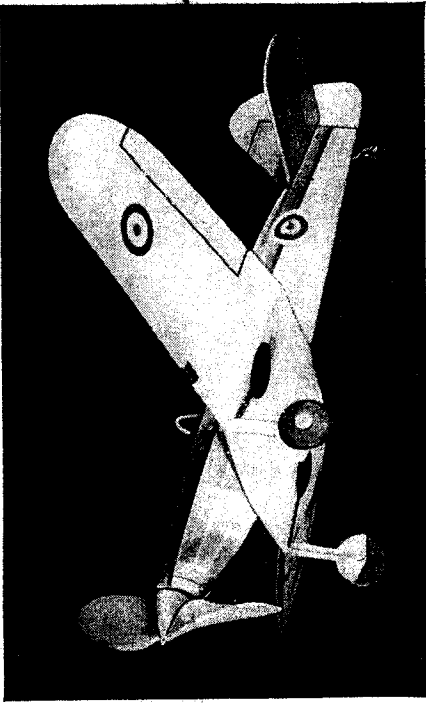
To obtain their patterns trace the top, bottom and side outlines of the body. The keels are shown in grain. Bulkheads are cut from 1/16" sheet to the patterns shown in

(Continued on page 31)

A large propeller gives it fine performance



Carefully detailed, it is very realistic



Fly This Miles Master

(Continued from page 25)

the plans. Cut only the notches for the keels, as shown, leaving the other to be cut as a later operation; their positions should be marked as shown for later reference.

Pin the top and bottom keels to position over the fuselage side view and then cement half the bulkheads in their proper locations. Attach a side keel and then, when dry, remove the structure from the plans and add the remaining bulkheads and keel. All stringers are 1/16" square balsa. Attach the ones nearest the side keels first, cutting notches as required. Always attach stringers to corresponding positions of each side of the fuselage at the same time to prevent pulling the body out of line.

Between bulkheads B and E, where the wing fits in, curved pieces are cut from soft 1/16" sheet and fitted so as to make the fuselage sides fit the wing curvature. Add 1/16" sheet to form the dashboard and in the rear of the fuselage to act as an anchor to hold the rubber motor.

The nose block, just forward of bulkhead A, is made from two pieces of 1/4" sheet. The first is removable but is held in place by a small cube that fits into the second piece which in turn is cemented to A.

TAIL SURFACES: Construction of tail surfaces is easy; both the rudder and the stabilizer are constructed in a similar manner. For greatest strength the stabilizer is made in one piece, so make a full size plan. Pin all stock directly on the plans. Dimensions are given in the plans. When dry remove the frames from the plans, trim and sand the surfaces to a final shape. Check against warp.

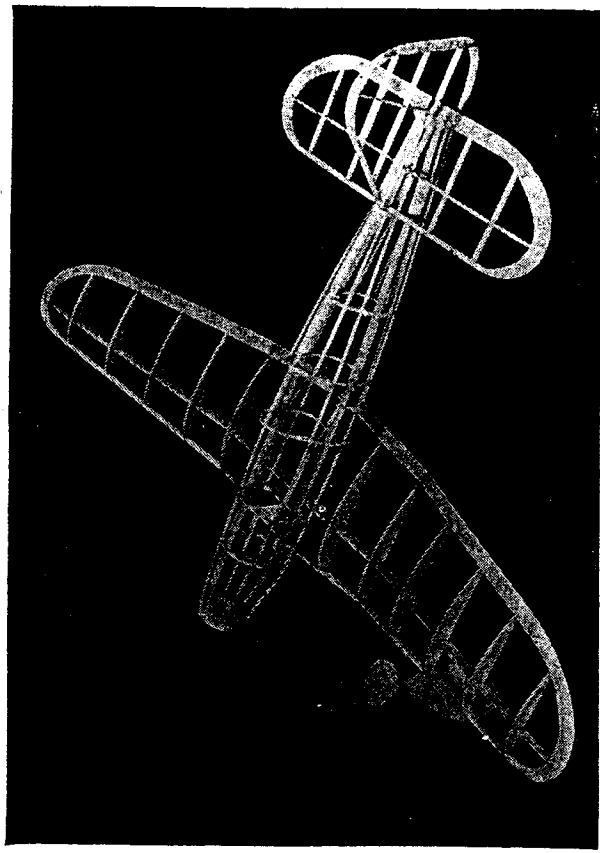
WING: The wing is made in one piece. Thus it will be necessary to make a tracing of the other half of the wing as space allows us to present only the right half. The entire wing frame is built over this full size plan and then cracked at rib 3 for the required dihedral.

Two of each type rib with the exception of No. 1 are required; all are cut from 1/20" or 1/16" sheet balsa. Notches for the spar must be cut with accuracy to insure a neat job. The leading edge and wing spar taper is shown by the broken lines.

Taper the trailing edges to correct cross-section before pinning them to place over the plans. Assemble the parts right over the plans using pins to hold them in place until the cement is hard. Tips are cut from 1/16" sheet to the correct shape and cemented in place. Trim the edges and tips to shape, finish with sandpaper. Crack at ribs 3 and install 1-3/4" dihedral under each tip.

LANDING GEAR: Landing gear struts are bent from .040 music wire which is bent so as to join the wing spar and rib No. 3. Be sure to make a right and left strut and then attach them to place with thread and lots of cement. Use a needle and thread to sew right through the ribs and around the wire. Apply several coats of cement to the entire adjacent area. The 1/32" sheet landing gear leg covers are not added until the wing is covered.

Lightweight wheels can be purchased or they may easily be made from scraps of 1/8" sheet balsa that have been laminated



The structure is light, strong and easy to build

together. Washers or bearings should be attached to each wheel so they will turn freely and accurately.

PROPELLER: For best performance any flying model must have an efficient propeller. Select a hard balsa block 1" x 1-1/2" x 7-1/2" and cut the blank to the shape shown. Drill the tiny hole for the prop shaft then start to carve a right-hand propeller. Finish the back surface of the blades first, then cut away the front to the desired thickness. Round the blade tips similar to the prop shown in the photos. Use rough and then fine sandpaper to smooth and balance the blades.

The spinner is made in two individual pieces cemented to the sides of the hub. A free-wheel device should be attached to improve the glide and a bearing is cemented to the back so the prop will revolve smoothly. Apply several coats of clear dope with light sandings between each and then color dope to a smooth finish.

For the propeller shaft use .040 music wire. Place several washers between the prop and nose plug before bending a loop in the end into which a winder can be hooked.

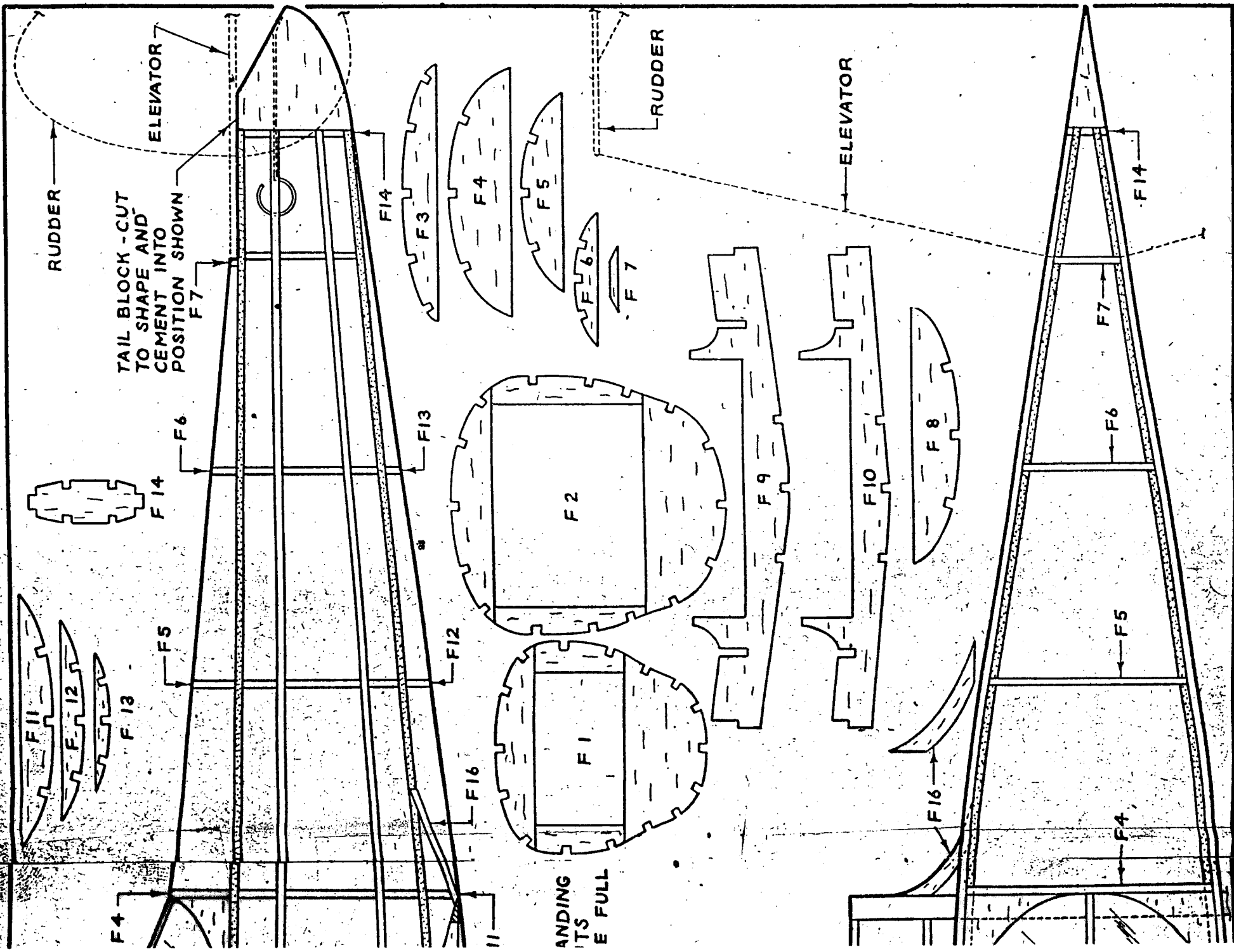
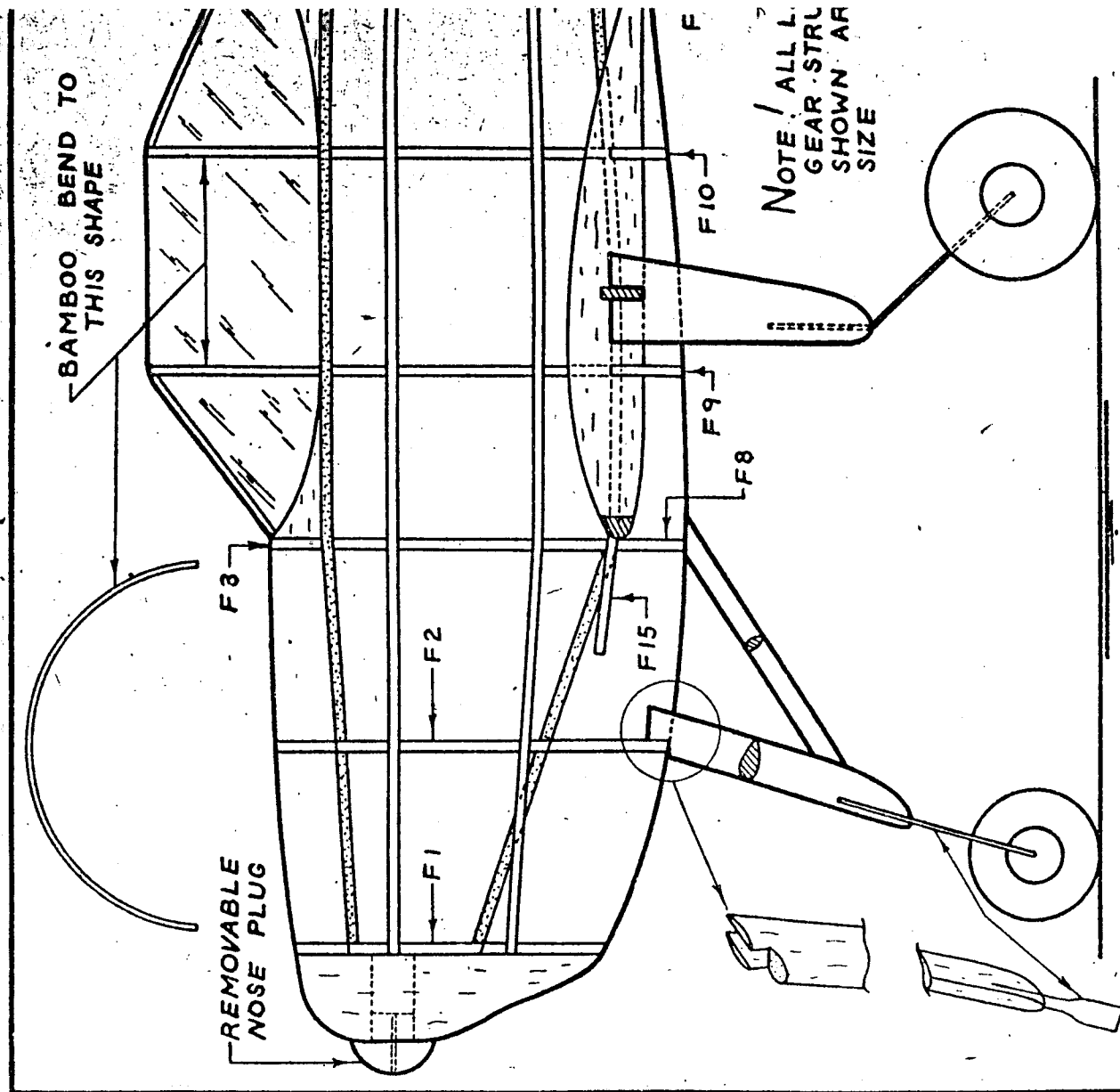
COVERING: Before the frames are covered, carefully sand to remove all flaws and roughness. Either colored tissue or Silkspar may be used and banana oil or thin dope is the adhesive. Use individual sections of tissue for each flat section of each side of wing, tips, tail surfaces, etc. In covering the fuselage it will be necessary to use numerous small pieces to work around the curves without wrinkles; the tissue must be lapped carefully to assure a neat job. Lightly spray the covered parts with water to tighten the tissue. The flying surfaces must be supported level while drying so they will not warp.

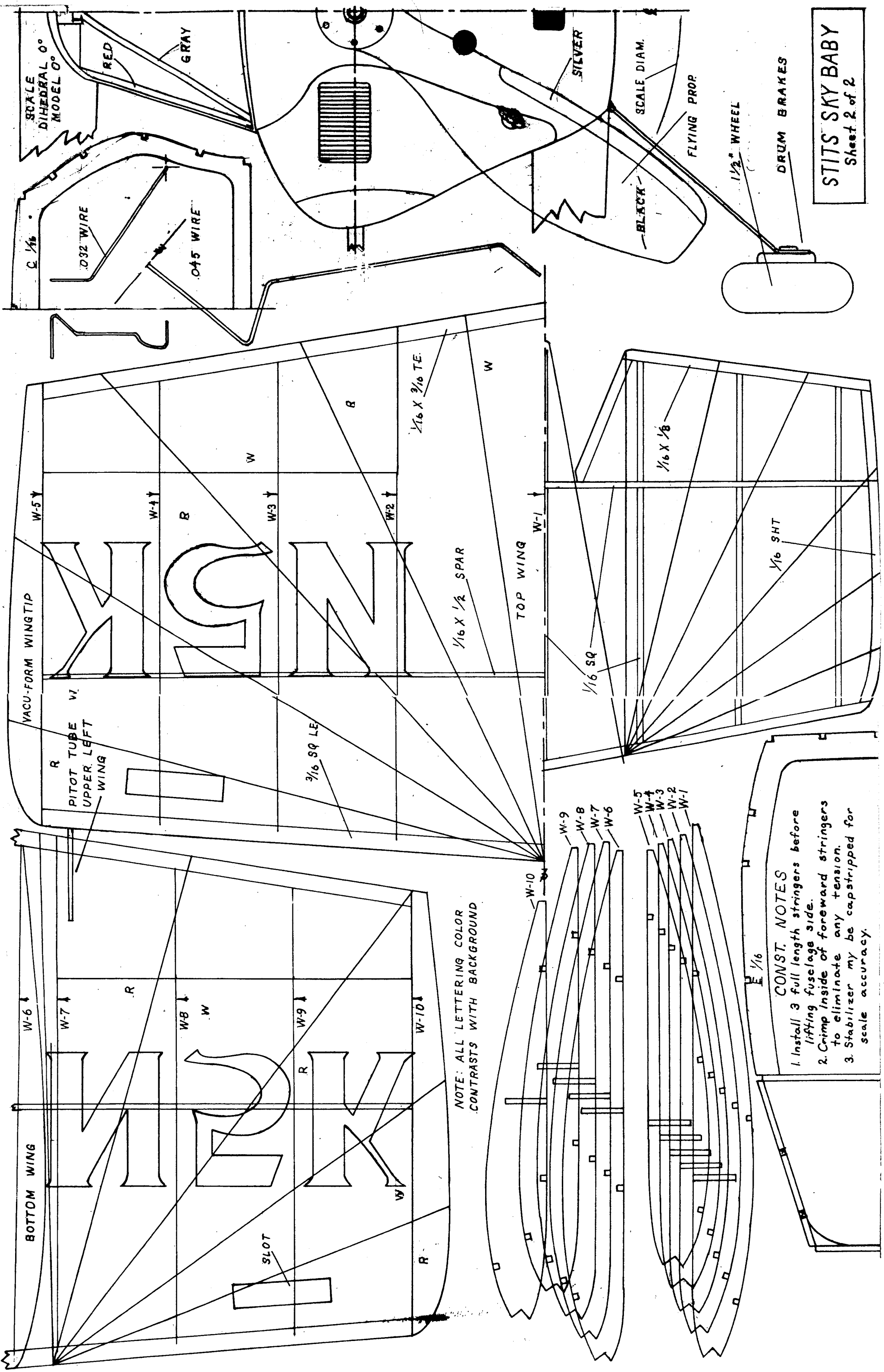
Assembly of the Miles Master is simple. First fit the wing into the recess in the fuselage and cement firmly. If parts have been built with accuracy, the angle of incidence will automatically be correct. Finish the section from wing to fuselage with small pieces of 1/16" sq. Wing fillet patterns are given and two are cut from 1/32" sheet. They are to fit accurately from fuse-

lage to wing and may need a bit of alteration to fit exactly on your model. If the builder desires, the trailing edge of each fillet may be strengthened by laminating another small piece of 1/32" sheet to the underside.

It will be necessary to temporarily cut the top keel behind H to admit the stabilizer which is cemented in position. Cement the rudder to place with a bit of offset to counteract torque. The stabilizer trailing edge may have to be cut a bit to allow the rudder to be in position. Tissue fillets are placed between the tail surfaces and fuselage. Any wrinkles in the covering should be moistened with water and permitted to dry before the entire model is given a coat or two of clear dope.

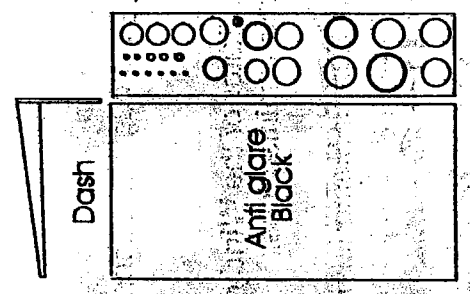
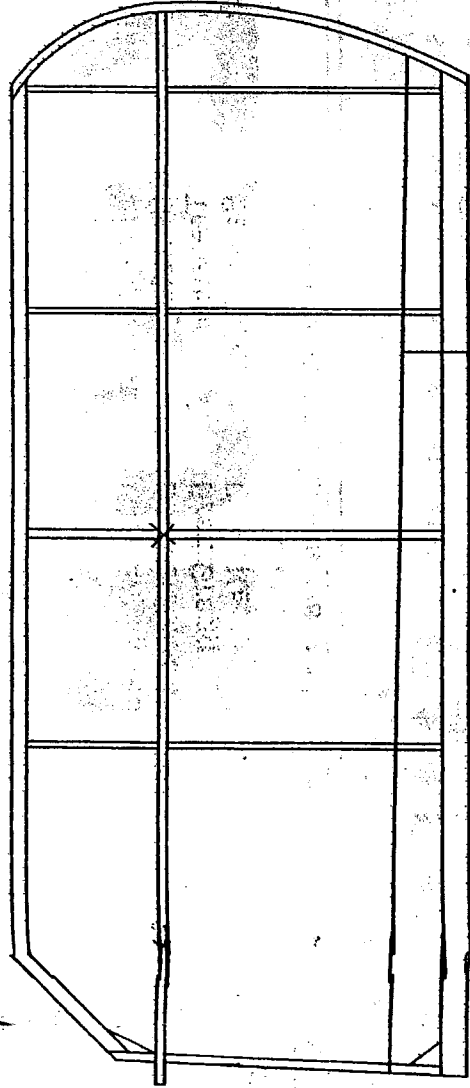
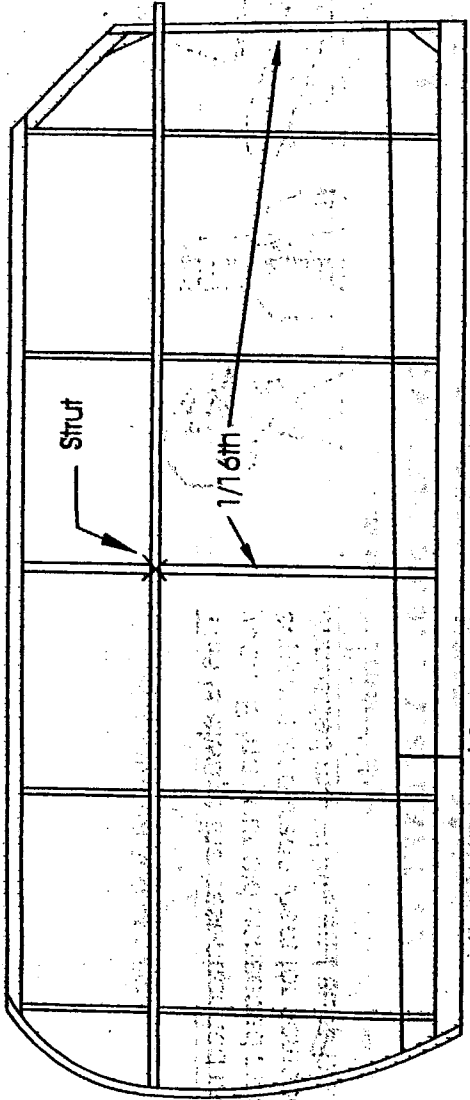
The model cannot be considered complete until numerous minor details are added. The cockpit is made of thin celluloid. When cementing the celluloid in place be careful to avoid cement smears. The structural detail is represented by doping thin strips of black tissue to the transparent enclosure. Wheels are colored and then held to the axles by small washers soldered to the ends. The outer landing gear covers are cut from 1/32" sheet and then covered with tissue to match the rest of the plan. Control surface outlines are simply thin strips of black tissue doped to place. Items such as tail wheel, exhaust ports, etc., are made from scraps. The British insignia is found on the wings and fuselage sides of the real plane, and can be made from colored tissue.



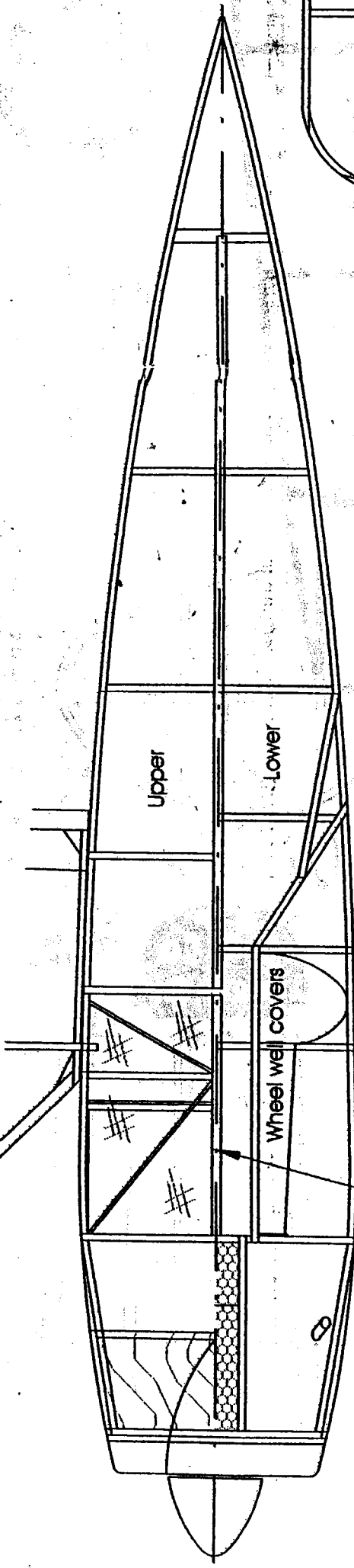
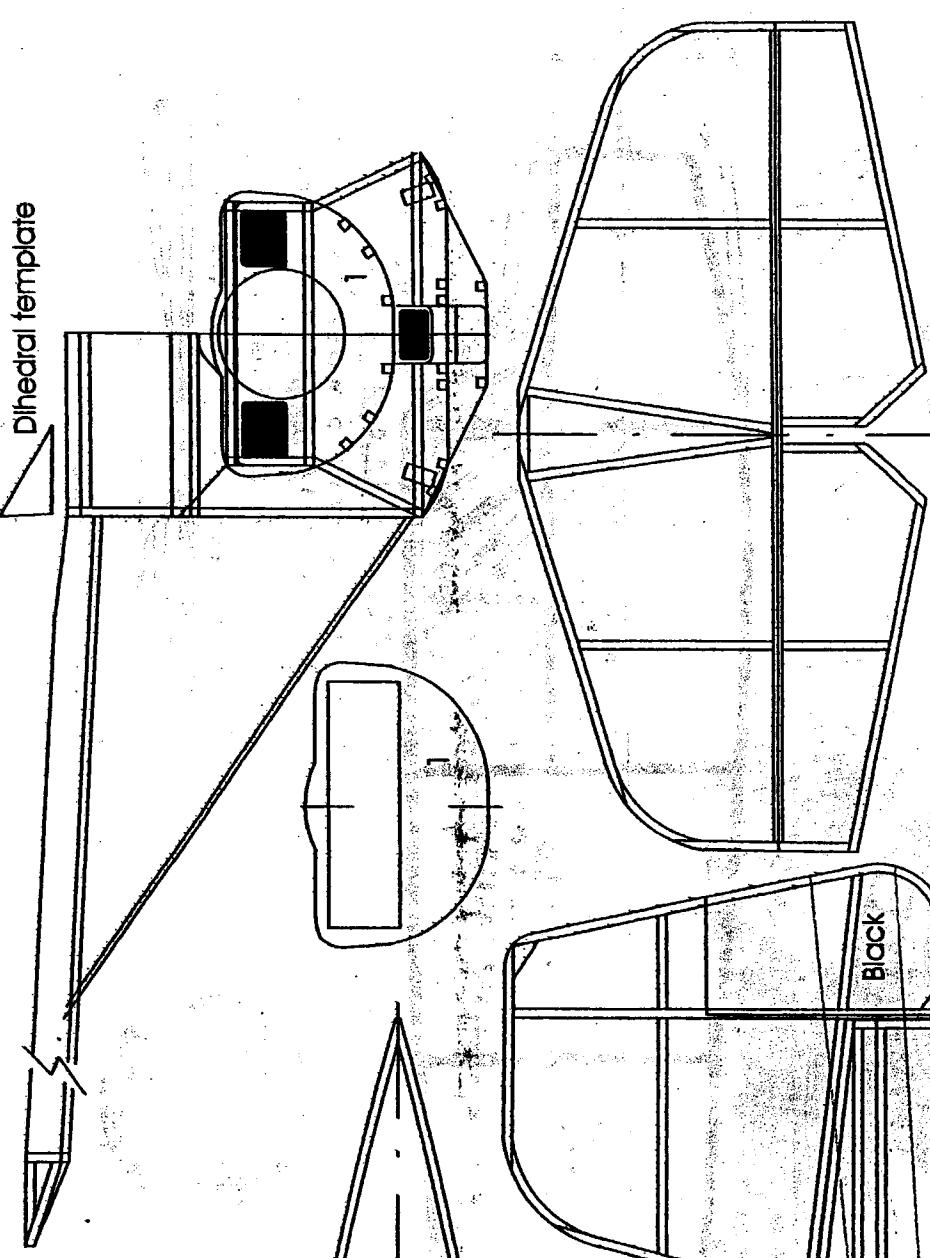


NOTE: ALL LETTERING COLOR
CONTRASTS WITH BACKGROUND

- CONST. NOTES
1. Install 3 full length stringers before lifting fuselage side.
 2. Crimp inside of forward stringers to eliminate any tension.
 3. Stabilizer may be capstripped for scale accuracy.



Dihedral template

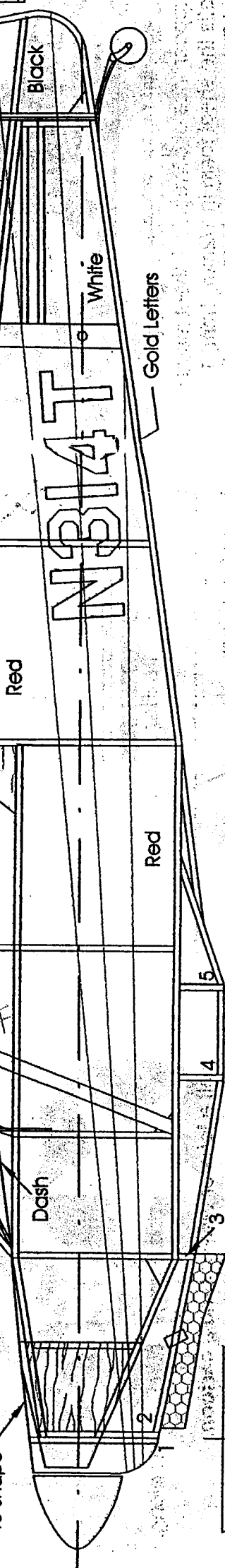


Preform these pieces

Wing Spar Location

Colour lotes
All Rec with
Black and White stripes
Gold letters and numbers

3/32 Sheet sand
to shape



This slick looking Tailwind with its retracting gear belonged to A. C. Occhipinti Of Metairie, LA. Gear up configuration increased speed by 20 mph. Differences between this and a normal Tailwind other than the gear. Wing tips are rounded and of shorter span. Rudder is rounded on the upper top of the rear. Cowling shape is different from the 3-views I have. This plan is based on the 3-view in Model builder January 1975. Modifications are based on Photos in Air Trails Homebuilt Aircraft summer 1970 (colour photo on Cover) and Air Progress Homebuilt Aircraft Fall /Winter 1966-67.

A. C. OCCHIPINTI'S WITTMAN TAILWIND PEANUT SCALE

Plan By David Livesay
for the Cloudbusters Newsletter
December 12, 2002