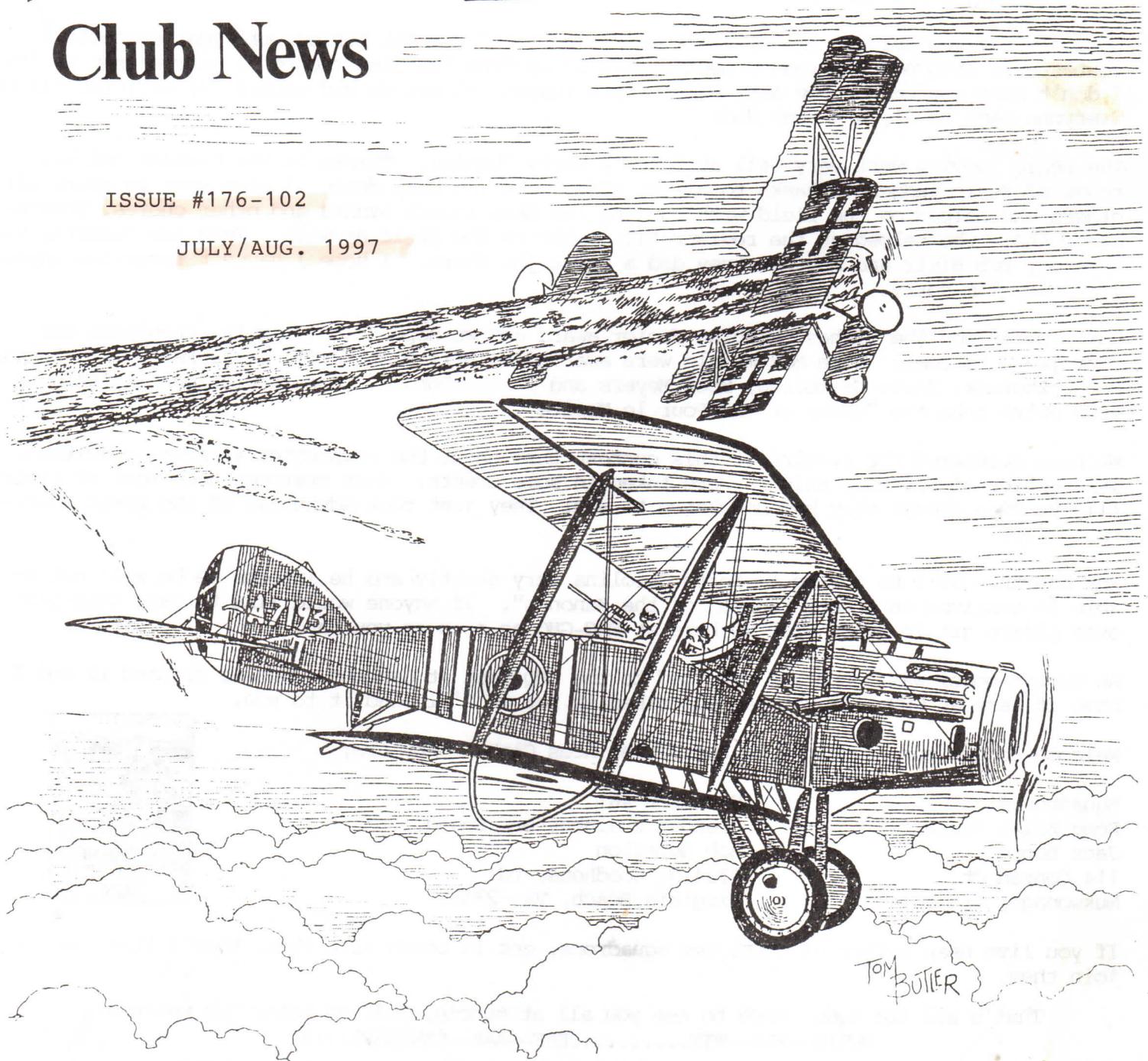


FLYING ACES

Club News

ISSUE #176-102

JULY/AUG. 1997



TOM BUTLER

NEWS ON THE WING!

Our cover for this issue was drawn by Tom Butler. An exciting combat scene from the "Big Fuss" in Europe 1914-1918. Thanks, Tom.

I want to thank everyone who contributed to this issue, keep all the good "stuff" coming. The plans were done by Ralph Kuenz (Wittman Buster), Paul Boyanowski (Piper Pacer), Jake Larson (Ryan Navion) and John Lewars (Ford Flivver).

WOW! What a great weekend we had at Geneseo. If you didn't make it there you sure missed a good time. Hung (the Great God of thermals) blessed us with some of the best weather we have probably ever had while in Geneseo. Saturday was a little breezy at times but not bad and Sunday was almost like flying indoors! And the temperatures were in the seventies. Just perfect for flying our type of models.

Not only the weather was perfect, but we had a record turnout for our off-year contest. 116 contestants entered this year's meet! This is up from the then record 92 entries set in '95. I don't have a count on how many models were judged yet but we did record 776 official flights! Everyone came to fly and they did!

The scale judging went very well at Peter's Party Complex. Thanks to Vic Didelot and his 3 teams of scale judges. Thanks to all of them for a job well done. I also want to thank all others who helped on the field with running the mass launch events and other chores. Thanks go to those who helped at the registration table on the field as well. They are Juanita, Vic Didelot, Bob Blair and Roy Courtney did a great job there. I hope I haven't forgotten anyone, If I did, I'm sorry.

Daren Domen won the Highest Placing Junior award and we hope to see him in attendance for many years to come. Blue Max medals were awarded to Bill Passarelli, Larry Peavey, Ed Bojan, Peter Zbasnik, Steve Griebing, Stew Meyers and Tim MacDonald. Congratulations Skysters on your entry into the "Order of the Pour le Merite".

We have scattered the results of this contest throughout the newsletter as space permitted. Take notice of how many flights were taken in some events. Most everyone took most of their flights even though they had no chance to win! They just took advantage of the great weather to fly.

Roy Courtney will be moving to North Carolina very shortly and he informs me he will not be able to continue on as our "Keeper of the Kanones". If anyone would like to take this job over please get in touch with us here at FAC-GHQ as soon as you can.

An Embryo model was found and returned to the GHQ Tent at Geneseo. No one claimed it and I have it here at GHQ. If you can described it for me I'll send it to you.

Welcome to two more squadrons to the Flying Aces Club. They are;

Squadron #60
Bong Eagle Squadron
Jack Boone
114 Conrad Ct.
Mukwonago, Wi. 53149

Squadron #61
Dreaded Brainbusters Squad.
Bob McLellon
1724 N. Woodhouse rd.
Virginia Beach, Va. 23454



If you live near either of these new squadrons, get in touch with them, they'd like you to join them.

That's all for now. Hope to see you all at Muncie, Ind. on Labor Day weekend!
BUILD--FLY--WIN.....EFF--AAA--CEEEEEEE!!!!!!

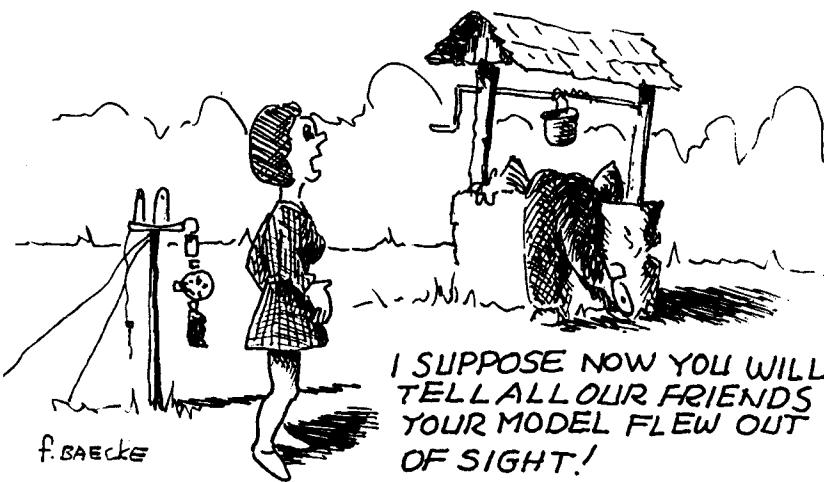
Lt. Col. Lin Reichel, CinC-FAC

Dave Linstrum writes to tell us that at the Burger King resaurant in Coconut Grove, Fla. you can see photo documentation of the Pan-Am operations in the decor there. These historic flying boat wall photos show the very active seaplane base in use way back when. If you are in Miami, have a Whopper and look at the flying boats. Also give "Doc" Martin a call, he'd be glad to see you. His phone is (305) 858-6363.

Recently a couple of Clubsters have requested an article on how to braid rubber motors. I know this has been done many times but maybe you have a different way, or maybe just the regular way. Anyhow, would some of you like to send in your way to help some of our newer members? Send to GHQ.

WANTED:

Info, photos, etc. about Harriet Quimby. Harriet had the dubious honor of being the first woman to die in an airplane crash. She died in the crash of her Bleriot in 1912. Does a plan exist of her aircraft? Jack Sarhage, 875 River Rd. Piscataway, N.J. 0854-5549.



If the box on the right has the dreaded RED "X" in it, it is time to renew your membership which includes the newsletter. Cost is \$15.00 per year in the United States and Canada. Overseas the cost is \$20.00 per year. Six issues per year published every other month. This is your last issue under your old membership. Please make checks payable to "Flying Aces". Send to FAC-GHQ, 3301 Cindy Lane, Erie, Pa. 16506.

FAC Postal Contests

This years postal contest will be different than those in the past. This time we will be shooting for a target time. The time will be a secret until the contest is over but it will be somewhere between 30 seconds and two minutes. An independant member of GHQ will pick the time and put it in a hermetically sealed envelope until the contest is over. The closest time to the target will be the winner.

There will be two divisions, Golden Age Civil and Modern Civil aircraft only. You may enter only one model per event and you can enter three flight times per model. The contest starts now and will end on October 31, 1997. Times postmarked after Nov. 2nd will be void. Send your name, the name of your model and the time to; FAC-GHQ, 3301 Cindy Lane, Erie, Pa. 16506

GOLDEN AGE CIVIL

Pilot	Plane	Times
Dave Livesay	Zlin 12	38-65-76
Rich Miller	Cessna 34	38-70-64
Dave niedzielski	Rearwin	59-57
Steve Griebing	Vega	73-46
Lin Reichel	Monocoupe	30-28-31
Gordon Roberts	Stinson 105	37-83-120
Bill Harding	Baby Ace	81
Mark Fineman	Monocoupe	120
Walt Farrell	Super Ace	49-69-82

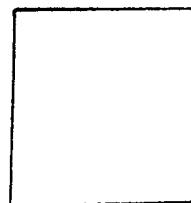
MODERN CIVIL

Pilot	Plane	Times
Dave Livesay	Zlin 372	79
Ken McConnell	Bede BD-4	34

ERIE MODEL AIRCRAFT ASSN. ANNUAL BANQUET

The banquet this year will be on Saturday September 27th at the Ramada Inn on Route 90 and Wattsburg Rd. Cocktails at 6:30 pm and dinner at 7:00pm. This will follow their contest that day. If you would like to join them please notify Vic Didelet at (814) 838-3263 before Sept. 21st for reservations. All the usual "STUFF" and good times.

If you plan on staying overnight at the Ramada they will give you a discount if you tell them you are there for the banquet



FLYING ACES SCALE (41 entries)

FAC POWER SCALE---MULTI-ENGINE (3 entries)

Pilot	Plane	1st	2nd	3rd	scale	bonus	best	total	Pilot	Plane	1st	2nd	3rd	scale	bonus	best	total
1. Don Snell	Cant	48	64	87	57	35	73.5	165.5	1. Terry Pittman	Farman Jabiru	92	112	72	62.5	8	82.5	145
2. Pres Brunning	Breguet 693	39	98	39	56	25	77	158	2. Joe Barish	ME Gigant	95	98	115	60.5	5	82.5	143
3. Vance Gilbert	Savoia	53	112	--	52	20	80.5	152.5	3. Jack Noll	DH Dash 8	51	71	--	47	25	76.5	123
Larry Peavey	Lippisch P-13	31	54	39	37	35	54	126	FAC POWER SCALE---SINGLE ENGINE (15 entries)								
Larry Peavey	Caudron 714	45	--	42	10	45	97		1. Dave Rees	Colibri	90	120	00	61.5	0	82.5	144
Pete Wallace	Curtiss P-40E	34	29	30	52	10	34	96	2. Terry Pittman	Bleriot 32	97	93	108	60.5	5	80.75	141.25
Jack Noll	T-28	53	--	53	10	53	116		3. George Lewis	Piper J-3	120	--	--	58.5	0	82.5	141
Dave Rees	Fox Moth	70	86	77	57	15	73	145	3. Don Snell	Missel Thrush	120	--	--	58.5	0	82.5	141
Bob Clemens	Ryan YO-51	55	40	--	53.5	3	55	1115	(Duplicate awards for third place)								
David Franks	F4F Wildcat	62	--	--	51	5	61	117									
Ed Novak	Heinkel 100D	29	32	23	46	10	32	88									
Dave Niedzielski	FW- A-17	47	66	55	45	0	63	98									
Pete Azure	Aeronca	27	--	55	52	10	27	89									
Ollie Benton	Dayton-Wright	49	--	--	46	5	49	100									
Ed McQuaid	Piper Cruiser	22	--	--	43	0	22	65									
Bob McLellan	Stinson Voyager	45	50	38	52.5	0	50	102.5									
Harvey Pastel	Cessna L-19	24	30	--	44	0	30	74									
Bill Mueffelmann	Bell P-39	46	26	--	29	10	46	85									
Terry Pittman	Aero A-18	46	58	91	55	15	75.25	145.25									
Tom Nallen II	AW-FK8	57	--	--	46	15	57	118									
Glen Simpers	Macchi	50	38	22	53	10	50	113									
Jack Moses	Curtiss SBC-3	29	59	52	52	15	59	126									
David Franks	Fairey Fulmar	68	73	77	54	10	68.5	132.5									
Tim MacDonald	Turbo-Porter	60	45	75	26	0	67.5	93.5									
Claude Powell	Curtiss Falcon	37	41	37	52.5	15	41	108.5									
Jack McGillivray	SE-5 replica	113	--	--	56	15	15	80.75									
Bruce Foster	Gadfly	37	52	48	30	10	52	92									
Vance Gilbert	Avro 547	37	42	44	51	20	44	115									
Bob Marchese	Macchi	30	29	28	53	10	30	93									
Lloyd Shales	Bellanca Jr.	22	--	--	38	10	22	70									
Dave Livesay	Judy	74	--	--	51	10	67	128									
Charlie Hill	Junkers D-1	36	35	--	54.5	10	36	100.5									
Stu Weckerly	Dalotel DM-165	49	22	25	55.5	10	49	114.5									
Paul Boyanowski	Waco GZC-7	102	--	--	51	15	78	144									
Bob Isaacks	Tony	56	--	--	52.5	10	56	118.5									
Jack Noll	KI-61	36	61	--	59	10	60.5	129.5									
Bill Mueffelmann	Cessna C-34	25	38	--	44	0	38	82									
Bob Marchese	Hornet Moth	35	--	--	?	15	35	50									
Ed Novak	Pegna PC-1	44	42	--	35	10	44	89									
Richard Zapf	Boeing 247	25	30	31	44	20	31	105									
George Lewis	Waco SRE	120.	--	--	53	15	82.5	150.5									

WORLD WAR TWO (22 entries)

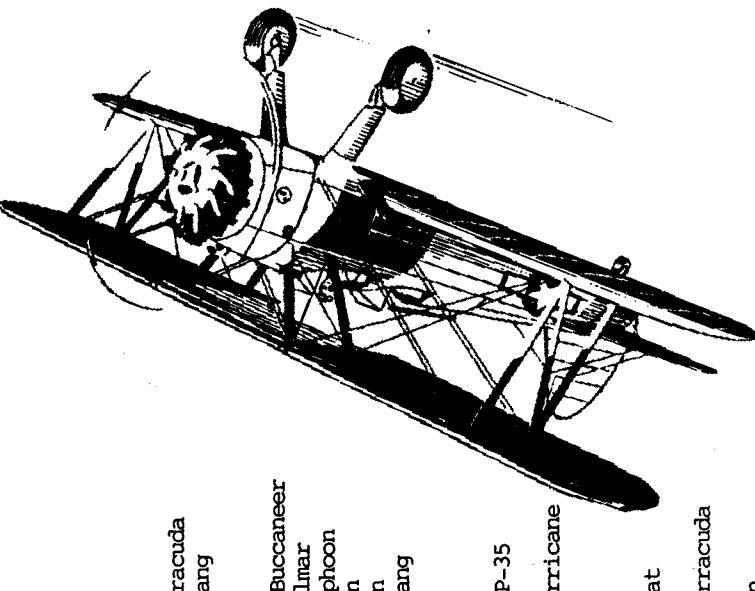
Pilot	Plane	1st	2nd	3rd	Total
1. Jack McGillivray	Tom Nallen II				
2. Richie Miller	David Franks				
3. Gordon Roberts	Mike Nassise				
	Tim McDonald				
	Jack Noll				
	Steve Griebling				
	Vet. Thomas				
	John Houck				
	Bob Marchese				
	Bob McLelland				
	Dave Livesay				
	Richard Zapf				
	C. Schobloher				
	George Lewis				
	Bruce Foster				
	Dennis Norman				
	Bill Mueffelmann				
	Ollie Benton				
	Oscar Smith				
	Greg Gallo				

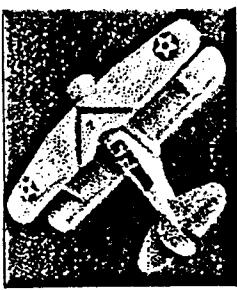
FAC OLD TIME GAS REPLICAS (7 entries)

Pilot	Plane	1st	2nd	3rd	Total
1. Dick Miller	Half Pint	120	120	120	360
2. Bill Passarelli	Trenton Terror	120	120	112	352
3. Bert Phillips	AT Sportster	120	120	76	316

FAC POWER SCALE---MULTI-ENGINE (3 entries)

Pilot	Plane	1st	2nd	3rd	Total
1. Terry Pittman	Farman Jabiru	92	112	72	22.5
2. Joe Barish	ME Gigant	95	98	115	60.5
3. Jack Noll	DH Dash 8	51	71	--	47
					25



New from England!

Shown Above: Curtiss Helldiver, The Nakajima Kate, Douglas Dauntless,
all carved from foam.

Indoor Foam Scale Flying Models, HOW TO

BUILD AND FLY THEM

Compiled by David Deadman, Peter

Smart and R. Crossley

This booklet presents detailed instructions for making indoor flying scale models of astonishing realism and high performance, from Pistachios to Walnuts.

The foam method allows easy and rapid construction of ever complex subjects that would be difficult to simulate with traditional stick and tissue materials.

Examined are detailing, painting and trimming for flight.

Pictures show such models as an Avro Lancaster, Supermarine Spitfire, Lavoie LA-7, Curtiss Helldiver, Junkers Ju88, Curtiss Schneider racer, Martin B-26, Douglas Dauntless and more.

Numerous pictures and illustrations, plus one 3-view drawing. 16 pages
11-5/8" x 8-1/4" \$7.95

FAC OLD TIME STICK (12 entries)

Pilot	Plane	1st	2nd	3rd	Total
1. Herb Kothe	Korda "C"	120	120	120	360
2. Bill Passarelli	Thermal-eer	120	120	120	360
3. Fred Wunsche	Korda "C"	101	120	120	341
David Franks	Sparky	73	64	120	257
Bert Phillips	Gollywock	81	117	103	301
Tom Schmitt	Korda Stick	117	--	--	117
Bob Laybourne	Gollywock	62	52	71	185
Ed McQuaid	Gollywock	94	75	67	236
Jim Anderson	Gollywock	120	--	--	120
David Seath	Korda "C"	111	--	--	111
Dan Driscoll	Casano	81	85	--	166
Roger Moon	Gollywock	120	120	--	240

Herb Kothe won the fly-off with Bill Passarelli.

WANTED:

Color info on the British lightplane, Planet Satellite, G-AL01 of 1948-1949. Richard Padgham, 3954 Angus Dr., Fort Worth, Texas 76111-7910

GENESEO CONTEST

The following companies and individuals contributed to the prize list for this contest. Please consider them when making your model supply purchases. Many thanks to all of them.

Herr Engineering
Cirrus Aviation
Dumas Products
Bob Hunt Videos
Lone Star Models
Dave Linstrum
Hannan's Runway
Fantasy Flyers
Kenway Electrics
John Pond Plans
Peck-Polymers
Superior Balsa
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Bob Isaacks Canopies
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Scale Model Research
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Detroit Cloudbusters
Diels Engineering
Campbell's Custom Kits
Model Aircraft Labs
Charles Schultz Plans
Richie Miller
Harry Geyer
Charlie Sauter Videos
Ed Bojan Model Pins

The following sponsored various events for the contest and we thank them very much.

Bill Schmidt
Peck-Polymers
Charlie Sauter Videos
Erie Model Aircraft Assn.
Penn Valley Hobby Shop
Detroit Cloudbusters
Herr Engineering
Hi-Line
Diels Engineering
FAC-GHQ

GOLDEN AGE CIVIL (25 entries)

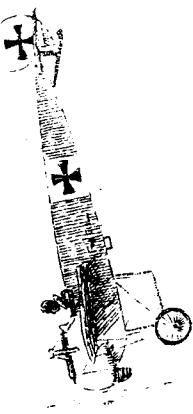
Pilot	Plane	1st	2nd	3rd	Total
1. Herb Kothe	Taylorcraft	120	120	120	360
2. Paul Boyanowski	Waco ZGC-7	82	120	120	322
3. Stu Weckerly	Stout 2AT	88	120	112	320
Dan Driscoll	Howard DGA	73	39	58	170
Vic Nippert	Taylorcraft	94	46	97	237
Bob Bojanowski	Fairchild 24	105	96	--	201
Lloyd Shales	Leopard Moth	57	71	58	186
Richie Miller	Cessna C-34	87	78	95	260
Hal Lorimer	Gulfstream	75	--	--	75
George Lewis	Rearfly	71	71	120	262
D. Niedzielski	FW A-17	78	74	120	272
Bob McClellon	Stinson Reliant	58	48	75	181
Dave Livesay	Zlin 12	77	50	--	127
Marie Rees	Porterfield	120	120	34	274
Tim McDonald	Cessna C-34	70	50	70	190
Ed McQuaid	Conquer Swift	39	37	35	111
Ray Rakow	Curtiss Robin	89	46	65	200
Steve Griebling	Vega	117	120	--	237
Larry Peavey	Bellanca Aerocruiser	87	--	87	120
Dave Rees	Gen. Aristocrat	120	--	--	120
Oscar Smith	Interstate Cadet	43	52	47	142
Richard Zapf	Vultee V1-A	120	78	98	296
John Houck	Rearwin Sport	95	85	64	244
Bruce Foster	Encoupe	50	42	37	129
Vance Gilbert	Avro 547	52	48	37	137

FAC Old Time Rubber (23 entries)

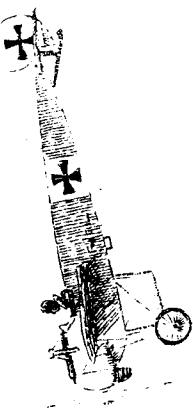
Pilot	Plane	1st	2nd	3rd	Total
1. Herb Kothe	Miss Canada	120	120	120	360
2. Bill Passarelli	Flying Aces Gulf	120	120	120	360
3. Stu Weckerly	Korda Victory	120	120	120	360
4. David Seath	Miss Canada	120	120	120	360
5. Fred Wunsche	Miss Canada	120	120	120	360
Ed McQuaid	F.A. Moth	60	38	60	158
C. Mendenhall	Orr Pacemaker	33	38	42	113
Bob Laybourne	Miss Canada	120	--	--	120
Charles Schobloher	Miss Canada	120	120	56	296
Vet Thomas	Miss Canada	120	--	--	120
Tom Schmitt	Stahl	120	--	--	120
Pete Azure	Stahl Hurricane	120	--	--	120
Bob Hammett	Albatross	61	120	104	285
Gordon Hastings	Stahl Hi-Climber	82	120	--	202
Dick Moore	Orr Pacemaker	120	76	--	196
Ken McConnell	Korda Victory	80	65	68	213
Bob McConnell	Sparky	59	57	89	205
John Houck	Korda Victory	101	120	--	221
Ralph Koenz	Stahl Hurricane	57	77	83	217
Vic Nippert	Sparky	120	120	98	338
C. Mendenhall	Miss Canada	120	90	--	210
Darin Domen	Sparky	30	35	45	110

WORLD WAR ONE (18 entries)

Pilot	Plane	1st	2nd	3rd	Total
1. J. McGillivray	Jackrabbit				
2. Ollie Benton	Chambermaid				
3. Oscar Smith	Mr. Smoothie				
Richard Zapf	Firecracker				
Jack Noll	Jackrabbit				
John Houck	Chester Jeep				
Dave Livesay	Floyd Bean				
Mike Nassise	Mr. Smoothie				
Tom Nallen, Sr.	Jackrabbit				
Tim McDonald	Jackrabbit				
Gordon Roberts	Chambermaid				
Steve Griebling	Caudron				
Tom Nallen II	Goon				
Greg Gallo	Floyd Bean				
C. Mendenhall	Toots				
Charlie Sauter	Firecracker				
Paul Boyanowski	Folkerts				
Dave Niedzielski	SK-4				
C. Schobloher	Mr. Smoothie				
Don Strull	Jackrabbit				
David Franks	Jackrabbit				



Pilot	Plane	1st	2nd	3rd	Total
1. Ollie Benton	Junkers CL-1				
2. Tom Nallen II	AW FK-8				
3. Steve Griebling	Mart. Buzzard				
Richard Zapf	Fokker D-8				
Jack Noll	Fokker D-8				
John Houck	Junkers J-1				
Roy Courtney	Martinsyde				
Richie Miller	DH-6				
Greg Gallo	Fokker D-7				
Dan Driscoll	Bristol Scout				
Dave Rees	Mart. Handasyde				
Bob McLellan	Fokker D-7				
Dave Niedzielski	Fokker D-7				
C. Schobloher	Sopwith 1½				
Dennis Norman	SE5-a				
Don Lang	Albatros				
Vernon Neff					



Herb Kothe won the fly-off.

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1/16 x 3/32 10 —	1/4 x 3/8 .27 .33		3/16 x 1 .31 .42	3/16 x 3/4 .35 .47		3 Ply .95 .180 .335 .635 .2475
1/16 x 1/8 10 .14	1/4 x 1/2 .29 .41		1/4 x 1 .35 .48	1/4 x 1 .39 .64		3 Ply .95 .180 .335 .635 .2475
1/16 x 3/16 11 .15	1/4 x 5/8 .37 .50		3/16 x 1 .52 .88	5/16 x 1-1/4 .48 .71		1/16 .140 .279 .510 .950 .3572
1/16 x 1/4 12 .15	1/4 x 3/4 .42 .58		1/2 x 1 .76 1.04	3/8 x 1-1/2 .56 .85		1/32 .140 .279 .510 .950 .3572
1/16 x 3/8 13 .16			2 INCH .36" .48"	3/4 x 3 .90 —		1/32 .140 .279 .510 .950 .3572
1/16 x 1/2 17 .21	5/16 INCH .36" .48"		1/32 x 2 .37 .50	1/4 x 3/8 .50 .75		1/32 .140 .279 .510 .950 .3572
1/16 x 3/4 22 .29	5/16 x 5/16 .27 .35		1/16 x 2 .38 .50	3/8 x 1/2 .85 .125		1/32 .140 .279 .510 .950 .3572
3/32 INCH .36" .48"	5/16 x 1/2 .38 .48		3/32 x 2 .48 .61	1/2 x 2 .74		1/32 .140 .279 .510 .950 .3572
3/32 x 3/32 11 .12	5/16 x 3/4 .46 .62		1/4 x 2 .49 .65	3/8 x 1-1/2 .80 .125		1/32 .140 .279 .510 .950 .3572
3/32 x 1/8 12 .14			3/16 x 2 .60 .74	1/4 x 1-1/2 .74		1/32 .140 .279 .510 .950 .3572
3/32 x 3/16 13 .16	3/8 INCH .36" .48"		1/4 x 2 .68 .90	5/16 x 1 .80 .125		1/32 .140 .279 .510 .950 .3572
3/32 x 1/4 14 .18	3/8 x 3/8 .36 .45		3/8 x 2 .86 .119	1/4 x 1-1/2 .74		1/32 .140 .279 .510 .950 .3572
3/32 x 3/8 15 .19	3/8 x 1/2 .40 .57		1/2 x 2 .1.10 1.43	5/16 x 1-1/2 .74		1/32 .140 .279 .510 .950 .3572
3/32 x 1/2 19 .24	3/8 x 5/8 .47 .65		1/32 x 3 .43 .80	1/4 x 2 .80 .125		1/32 .140 .279 .510 .950 .3572
3/32 x 3/4 26 .32	3/8 x 3/4 .53 .68		1/16 x 3 .44 .80	3/8 x 1-1/2 .80 .125		1/32 .140 .279 .510 .950 .3572
1/8 INCH .36" .48"	1/2 INCH .36" .48"		3/16 x 3 .52 .87	1/2 x 1-1/2 .80 .125		1/32 .140 .279 .510 .950 .3572
1/8 x 1/8 11 .13	1/2 x 1/2 .49 .64		1/8 x 3 .63 .84	1/2 x 2 .80 .125		1/32 .140 .279 .510 .950 .3572
1/8 x 3/16 13 .18	1/2 x 5/8 .57 .78		3/16 x 3 .76 1.03	1/4 x 3 .80 .125		1/32 .140 .279 .510 .950 .3572
1/8 x 1/4 14 .21	1/2 x 3/4 .60 .82		1/16 x 3 .94 1.30	3/8 x 2 .80 .125		1/32 .140 .279 .510 .950 .3572
1/8 x 3/8 15 .23			5/16 x 3 .1.09 1.52	1/4 x 2 .80 .125		1/32 .140 .279 .510 .950 .3572
1/8 x 1/2 21 .27			1/2 x 3 .1.50 2.05	3/8 x 1-1/2 .80 .125		1/32 .140 .279 .510 .950 .3572
1/8 x 3/4 28 .36	5/8 INCH .36" .48"		4 INCH .36" .48"	24" 30" 36" 48"		1/32 .140 .279 .510 .950 .3572
3/16 INCH .36" .48"			1/32 x 4 .66 .92	1x1 .085 .075		1/32 .140 .279 .510 .950 .3572
3/16 x 3/16 14 .23	Other Fine Products		1/16 x 4 .68 .92	1x2 .080 .165		1/32 .140 .279 .510 .950 .3572
3/16 x 1/4 18 .27	H.W. West Systems		3/32 x 4 .82 .114	1x3 .1.20 2.35		1/32 .140 .279 .510 .950 .3572
3/16 x 3/8 21 .29	& Bob Smith, Epoxy.		1/4 x 4 .93 .124	1x4 .1.67 3.25		1/32 .140 .279 .510 .950 .3572
3/16 x 1/2 24 .36	Tools, Supplies,		3/16 x 4 .1.09 1.56	2x2 .1.75 2.45		1/32 .140 .279 .510 .950 .3572
3/16 x 3/4 30 .45	Composites, Hardware		1/4 x 4 .1.52 1.79	2x3 .1.80 3.50		1/32 .140 .279 .510 .950 .3572
CA'S			3/16 x 3 (5) 3/16 x 4 (3)	3/8 x 1/2 (20) 3/16 x 3/4 (13)		OBECHI - 1/32" x 10" x 105" - \$13.75
Bob Smith			1/8 x 3 (5) 1/2 x 4 (3)	1/8 x 1/2 (20) 1/2 x 3/4 (15)		
36" Bargain Balsa Bundles - \$2.95 ea *						
Thin. 1/2 oz 2.10 1.85			1/32 x 3 (9) 1/32 x 4 (8)	1/8 x 1/8 (38) 3/16 x 3/16 (30)	1/4 x 1/4 (19) 3/8 x 3/8 (12)	1/2 x 1/2 (8)
Gap. or 1 oz 3.49 3.00			1/16 x 3 (9) 1/16 x 4 (6)	1/8 x 3/16 (32) 3/16 x 1/16 (24)	2/3 x 1/16 (15) 3/8 x 1/2 (10)	1/2 x 3/4 (6)
Thick. 2 oz 5.95 5.00			3/32 x 3 (8) 3/32 x 4 (5)	1/8 x 1/4 (30) 3/16 x 3/8 (20)	1/4 x 1/2 (14) 3/8 x 3/4 (8)	
BS Thick 8 oz 17.95 16.50			1/8 x 3 (8) 1/8 x 4 (4)	1/8 x 3/8 (28) 3/16 x 1/2 (17)	1/4 x 3/4 (10)	
Higher 16 oz 30.00			3/16 x 3 (5) 3/16 x 4 (3)	1/8 x 1/2 (20) 3/16 x 3/4 (13)		Limited availability - Call
in price Ultra GAP Gel 71 oz tube 5.85						() Denotes quantity per bundle
Odorless 1/2 oz 4.55 3.65			1/4 x 3 (4) 1/4 x 4 (3)	1/8 x 3/4 (15)		* Some stains, wormholes, & irregulars
Thin. 1 oz 8.45 8.65						Nichrome Foam Cutting Wire - 8 feet - \$3.00
Gap. or 2 oz 14.95 12.00			1/2 x 3 (2) 1/2 x 4 (2)			* \$6.00 Handg + UPS Oversize Ship Chge
CA ACCESSORIES			4 - 7 lb/cu. ft. - CONTEST GRADE BALSA		TOOLS & SUPPLIES	
2 oz. Accelerator (NHP)		3.15	3" SHEETS 36" 48"	4" SHEETS 36" 48"	BLOCKS 36" 48"	E16001 #11 Knife Handle
8 oz. Accelerator Refill (NHP)		5.95				E20011 #11 Super Sharp Blades (5 pk)
1 oz. Debonder (NHP)		1.99	1/32 x 3 .78 1.19	1/32 x 4 1.23 1.88	3/4 x 3 4.53 5.50	E22611 #11 Super Sharp Blades (100 pk)
Extender Tips, Reg. or Fine (6 pk)		1.49	1/16 x 3 .78 1.19	1/16 x 4 1.23 1.88	1x2 4.23 5.25	108 Single Edge Blades (100 pk)
Extender Tip, Extra Long		.25	3/32 x 3 .93 1.44	3/32 x 4 1.49 2.32	1x3 5.82 7.25	Z500 ZONA #500 Razor Saw
Extra Overcap		.25	1/8 x 3 .1.14 1.75	1/8 x 4 1.69 2.62	1x4 7.88 9.85	Z100 ZONA #100 3-in-1 Razor Saw
Thin Teflon Tubing 2 ft.		1.49	3/16 x 3 .1.32 2.02	3/16 x 4 1.97 3.00	2x2 6.23 8.00	M4100 Razor Plane
Replacement Top		.49	1/4 x 3 .1.57 2.37	1/4 x 4 2.37 3.32	2x3 8.48 11.00	M4101 Razor Plane Blades (3 pk)
Applicators, Regular, or Fine		.49	5/16 x 3 .1.73 2.72	5/16 x 4 2.97 4.47	2x4 12.53 16.25	M4000 Balsa Stripper
Empty CA Bottle 1/2 oz.		.80	3/8 x 3 .1.88 3.07	3/8 x 4 3.57 5.63	2x5 16.25 20.00	D400 Epoxy Brushes (6 pk)
Empty CA Bottle 1 oz		.95	1/2 x 3 .2.38 3.82	1/2 x 4 4.82 6.68	3x3 13.13 17.75	D360 2-56 Tap & Drill
Empty CA Bottle 2 oz.		1.25			3x4 17.45 23.50	D361 4-40 or 6-32 Tap & Drill
EPOXY - NHP			Limited supply - Sorry we can't select grain on contest balsa - May have some water stains			
5, 12, 30, & 3 hour 8 oz.		5.95	FIBERGLASS CLOTH 38" Wide	Fiber Glass Mount		D363 8-32 Tap & Drill
20 Minute Finish Coat 8 oz.		5.95	.75 oz 1.4 oz.	3/8 x 3/4 x 12 - 1/8, 5/32, 3/16 Groove		3.85
WEST SYSTEMS			2.10 oz. 3.1 oz.	DR408 Dremel - 1/2" Drum Sander Bands		5.35
Resin West #105 Quart		19.95	2.25 oz.	DR407 Dremel - 1/2" Drum Sander		5.35
Resin West #105 Gallon		55.95	2.45 oz.	DR420 Dremel Cut Off Wheel - Heavy Duty		5.35
Hardener, 10 min. cure #205 pt		9.50	—	#62 - 64 135 GUM Rubber Bands		5.35
Hardener, 25 min. cure #206 pt		9.50	6.35	D496 DU-BRO Solder .05 Dia.		5.35
Hardener, 10 min. cure #205 qt		21.40		S8100 STAY BRUTE Solder & Flux		5.35
Hardener, 25 min. cure #206 qt		21.40		D252 Small "T" Pins 1" (100 pk)		5.35
Quart Size Pump Set		6.75	36" 48"	Medium "T" Pins 1-1/4" (100 pk)		5.35
Gallon Size Pump Set		8.95	1.00	D253 Large "T" Pins 1-1/2" (100 pk)		5.35
Colloid Silica Filler (#406) 2 oz.		4.95	1.25	D254 1.75" 2.45" 3.16" 4.40" 5.00" 6.25" 7.00" 8.25" 9.00" 10.00" 11.00" 12.00" 13.00" 14.00" 15.00" 16.00" 17.00" 18.00" 19.00" 20.00" 21.00" 22.00" 23.00" 24.00" 25.00" 26.00" 27.00" 28.00" 29.00" 30.00" 31.00" 32.00" 33.00" 34.00" 35.00" 36.00" 37.00" 38.00" 39.00" 40.00" 41.00" 42.00" 43.00" 44.00" 45.00" 46.00" 47.00" 48.00" 49.00" 50.00" 51.00" 52.00" 53.00" 54.00" 55.00" 56.00" 57.00" 58.00" 59.00" 60.00" 61.00" 62.00" 63.00" 64.00" 65.00" 66.00" 67.00" 68.00" 69.00" 70.00" 71.00" 72.00" 73.00" 74.00" 75.00" 76.00" 77.00" 78.00" 79.00" 80.00" 81.00" 82.00" 83.00" 84.00" 85.00" 86.00" 87.00" 88.00" 89.00" 90.00" 91.00" 92.00" 93.00" 94.00" 95.00" 96.00" 97.00" 98.00" 99.00" 100.00" 101.00" 102.00" 103.00" 104.00" 105.00" 106.00" 107.00" 108.00" 109.00" 110.00" 111.00" 112.00" 113.00" 114.00" 115.00" 116.00" 117.00" 118.00" 119.00" 120.00" 121.00" 122.00" 123.00" 124.00" 125.00" 126.00" 127.00" 128.00" 129.00" 130.00" 131.00" 132.00" 133.00" 134.00" 135.00" 136.00" 137.00" 138.00" 139.00" 140.00" 141.00" 142.00" 143.00" 144.00" 145.00" 146.00" 147.00" 148.00" 149.00" 150.00" 151.00" 152.00" 153.00" 154.00" 155.00" 156.00" 157.00" 158.00" 159.00" 160.00" 161.00" 162.00" 163.00" 164.00" 165.00" 166.00" 167.00" 168.00" 169.00" 170.00" 171.00" 172.00" 173.00" 174.00" 175.00" 176.00" 177.00" 178.00" 179.00" 180.00" 181.00" 182.00" 183.00" 184.00" 185.00" 186.00" 187.00" 188.00" 189.00" 190.00" 191.00" 192.00" 193.00" 194.00" 195.00" 196.00" 197.00" 198.00" 199.00" 200.00" 201.00" 202.00" 203.00" 204.00" 205.00" 206.00" 207.00" 208.00" 209.00" 210.00" 211.00" 212.00" 213.00" 214.00" 215.00" 216.00" 217.00" 218.00" 219.00" 220.00" 221.00" 222.00" 223.00" 224.00" 225.00" 226.00" 227.00" 228.00" 229.00" 230.00" 231.00" 232.00" 233.00" 234.00" 235.00" 236.00" 237.00" 238.00" 239.00" 240.00" 241.00" 242.00" 243.00" 244.00" 245.00" 246.00" 247.00" 248.00" 249.00" 250.00" 251.00" 252.00" 253.00" 254.00" 255.00" 256.00" 257.00" 258.00" 259.00" 260.00" 261.00" 262.00" 263.00" 264.00" 265.00" 266.00" 267.00" 268.00" 269.00" 270.00" 271.00" 272.00" 273.00" 274.00" 275.00" 276.00" 277.00" 278.00" 279.00" 280.00" 281.00" 282.00" 283.00" 284.00" 285.00" 286.00" 287.00" 288.00" 289.00" 290.00" 291.00" 292.00" 293.00" 294.00" 295.00" 296.00" 297.00" 298.00" 299.00" 300.00" 301.00" 302.00" 303.00" 304.00" 305.00" 306.00" 307.00" 308.00" 309.00" 310.00" 311.00" 312.00" 313.00" 314.00" 315.00" 316.00" 317.00" 318.00" 319.00" 320.00" 321.00" 322.00" 323.00" 324.00" 325.00" 326.00" 327.00" 328.00" 329.00" 330.00" 331.00" 332.00" 333.00" 334.00" 335.00" 336.00" 337.00" 338.00" 339.00" 340.00" 341.00" 342.00" 343.00" 344.00" 345.00" 346.00" 347.00" 348.00" 349.00" 350.00" 351.00" 352.00" 353.00" 354.00" 355.00" 356.00" 357.00" 358.00" 359.00" 360.00" 361.00" 362.00" 363.00" 364.00" 365.00" 366.00" 367.00" 368.00" 369.00" 370.00" 371.00" 372.00" 373.00" 374.00" 375.00" 376.00" 377.00" 378.00" 379.00" 380.00" 381.00" 382.00" 383.00" 384.00" 385.00" 386.00" 387.00" 388.00" 389.00" 390.00" 391.00" 392.00" 393.00" 394.00" 395.00" 396.00" 397.00" 398.00" 399.00" 400.00" 401.00" 402.00" 403.00" 404.00" 405.00" 406.00" 407.00" 408.00" 409.00" 410.00" 411.00" 412.00" 413.00" 414.00" 415.00" 416.00" 417.00" 418.00" 419.00" 420.00" 421.00" 422.00" 423.00" 424.00" 425.00" 426.00" 427.00" 428.00" 429.00" 430.00" 431.00" 432.00" 433		

8.



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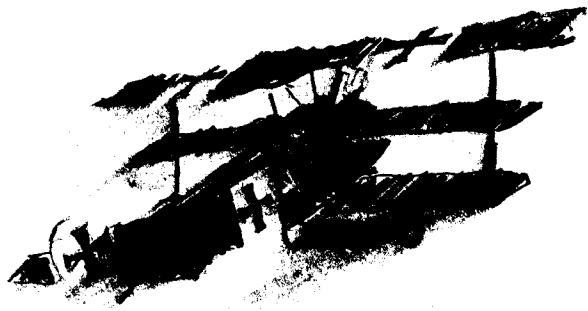
Left column; One of our featured plans in this issue. A Piper Pacer by Paul Boyanowski. She's a GREAT flyer. Photo by Paul.

Another of our featured plans is this Ryan Navion by Jake Larson, photo by Jake also.

Bob Breckur built this fine flyer, the West Wings kit of the Westland Widgeon. Photo by Bob.

Right column; Bill Harris from Hilo, Hawaii sends us his pic of his Douglas Skyshark. Model has contra-rotating props.

Another feature plan is this Ford Flivver powered by Co/2. Could also be electric or rubber powered. Model and photo by John Lewars.



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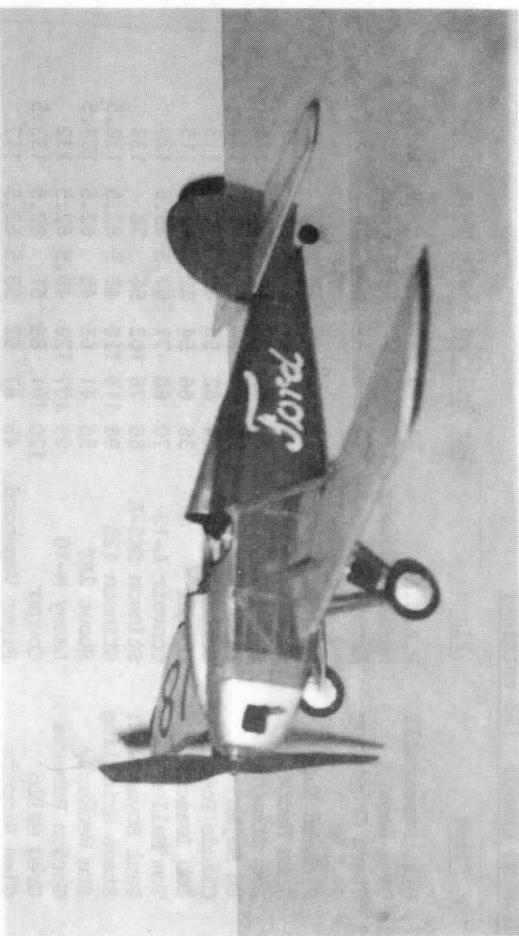
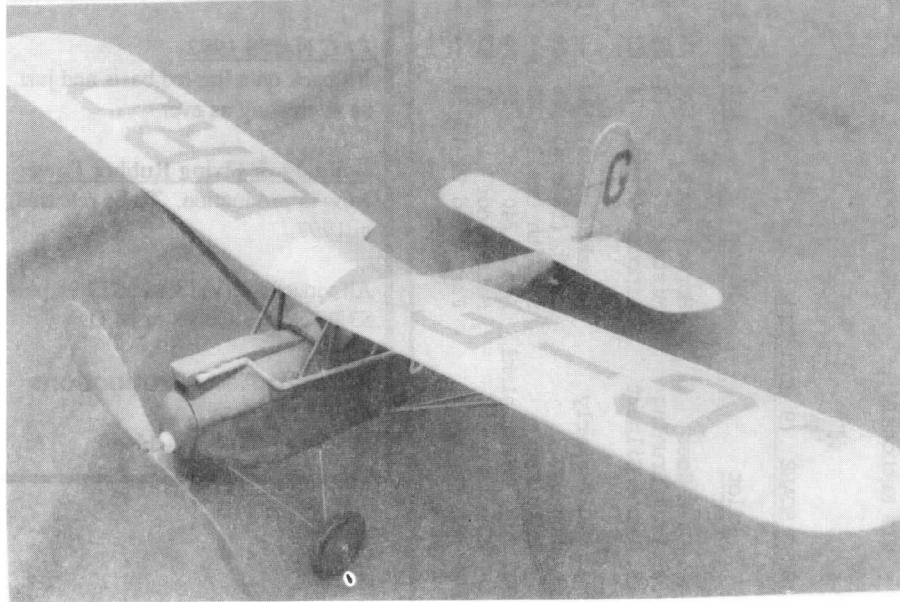
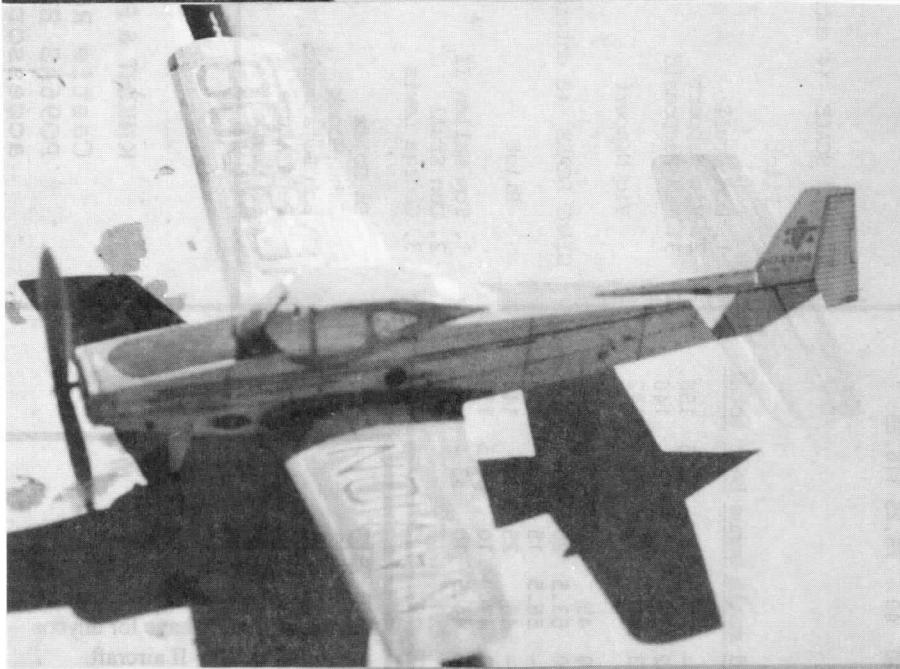
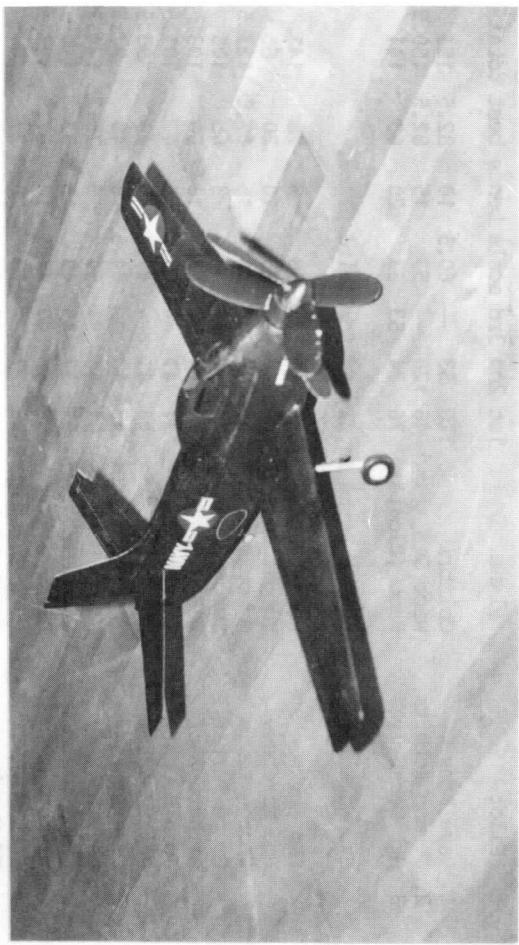
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10.

FAC PEANUT SCALE (16 entries)

<u>Pilot</u>	<u>Plane</u>	<u>1st</u>	<u>2nd</u>	<u>3rd</u>	<u>scale</u>	<u>best</u>	<u>total</u>
1. Bill Passarelli	P.A.M.A.	74	120	--	59	82.5	141.5
2. Dave Rees	Nesmith Cougar	120	--	--	56.5	82.5	139
3. Steve Griebling	Lacey M-10	120	--	--	52	82.5	134.5
Richard Zapf	ST-100	56	--	--	47	56	103
John Houck	Piper Vagabond	50	--	--	42	50	92
Bob Clemens	P.A.M.A.	49	55	--	59	55	114
Ed Bojan	Fike	58	61	--	51.5	60.5	122
Claude Powell	Corbin Cabin	74	82	55	42	71	113
Bob Isaacks	Cougar	36	66	54	52	63	115
Tom Nallen II	Convair L-13	70	60	71	57.5	65.5	123
Paul Boyanowski	Stinson SR5-A	68	76	102	56	78	134
Steve Griebling	Stinson 125	98	118	120	48.5	82.5	130.5
Stu Weekerly	Stout 2AT	56	41	65	45	62.5	107.5
Gordon Roberts	Lacey M-10	99	107	120	49.5	82.5	132
Greg Gallo	Cougar	120	101	88	51	82.5	133.5
Glen Stimpers	Piper Vagabond	45	67	52	53.5	63.5	117
Stew Meyers	Cessna	64	102	--	78	78	156
Tim McDonald	T-Tail Cougar	80	95	40	40	76.25	116.25

HI-WING PEANUT (18 entries)

<u>Pilot</u>	<u>Plane</u>	<u>1st</u>	<u>2nd</u>	<u>3rd</u>	<u>scale</u>	<u>best</u>	<u>total</u>
1. Bill Passarelli	P.A.M.A.	74	120	--	59	82.5	141.5
2. Dave Rees	Nesmith Cougar	120	--	--	56.5	82.5	139
3. Steve Griebling	Lacey M-10	120	--	--	52	82.5	134.5
Richard Zapf	ST-100	56	--	--	47	56	103
John Houck	Piper Vagabond	50	--	--	42	50	92
Bob Clemens	P.A.M.A.	49	55	--	59	55	114
Ed Bojan	Fike	58	61	--	51.5	60.5	122
Claude Powell	Corbin Cabin	74	82	55	42	71	113
Bob Isaacks	Cougar	36	66	54	52	63	115
Tom Nallen II	Convair L-13	70	60	71	57.5	65.5	123
Paul Boyanowski	Stinson SR5-A	68	76	102	56	78	134
Steve Griebling	Stinson 125	98	118	120	48.5	82.5	130.5
Stu Weekerly	Stout 2AT	56	41	65	45	62.5	107.5
Gordon Roberts	Lacey M-10	99	107	120	49.5	82.5	132
Greg Gallo	Cougar	120	101	88	51	82.5	133.5
Glen Stimpers	Piper Vagabond	45	67	52	53.5	63.5	117
Stew Meyers	Cessna	64	102	--	78	78	156
Tim McDonald	T-Tail Cougar	80	95	40	40	76.25	116.25

JUMBO SCALE (9 entries)

<u>Pilot</u>	<u>Plane</u>	<u>1st</u>	<u>2nd</u>	<u>3rd</u>	<u>scale</u>	<u>bonus</u>	<u>best</u>	<u>total</u>
1. Dave Rees	Hornet Moth	120	--	--	53.5	20	82.5	156
2. Pres Bruning	Mistle Lincoln Stand.	48	43	32	53	45	48	146
3. Vance Gilbert	Lincoln Stand.	74	23	73	60	15	67	142
Stu Weekerly	Found (floats)	120	--	00	45	5	82.5	132.5
Don Strull	Short (floats)	45	44	70	53.5	20	65	138.5
Pete Azure	Sopwith Camel	43	--	--	56.5	15	43	114.5
Dave Niedzielski	Arado 240	49	--	--	46	25	49	140
Leon Bennett	Moth Minor	61	57	40	47	10	60.5	117.5
Bob Marchese	Fairchild PT-19	33	--	--	44.5	10	33	87.5

PIONEER SCALE (4 entries)

<u>Pilot</u>	<u>Plane</u>	<u>1st</u>	<u>2nd</u>	<u>3rd</u>	<u>scale</u>	<u>bonus</u>	<u>best</u>	<u>total</u>
1. Don Strull	Voisin	120	--	--	60.5	30	82.5	173
2. Vic Nippert	Bleriot 25	.22	57	29	57	15	57	129
3. Tim Macdonald	Eastbourne Mono	.58	--	--	50	5	58	113
Vic Nippert	Eastbourne Mono	.33	24	34	58	5	34	97

GIANT SCALE (8 entries)

<u>Pilot</u>	<u>Plane</u>	<u>1st</u>	<u>2nd</u>	<u>3rd</u>	<u>scale</u>	<u>bonus</u>	<u>best</u>	<u>total</u>
1. Don Strull	Voisin	120	--	--	60.5	30	82.5	173
2. Vic Nippert	Bleriot 25	.22	57	29	57	15	57	129
3. Tim Macdonald	Eastbourne Mono	.58	--	--	50	5	58	113
Vic Nippert	Eastbourne Mono	.33	24	34	58	5	34	97
1. Tom Nallen II	Secat	97	120	--	50	15	82.5	147.5
2. Don Strull	Lincoln AP	96	120	--	56	0	82.5	138.5
3. George Lewis	Leopard Moth	62	120	--	53.5	0	82.5	136
Ed Bojan	Cougar	69	--	--	53.5	0	64.5	118
John Houck	ME-108 Taifun	52	--	--	51	10	52	113
Bob Bojanowski	Rearwin Speedster	64	61	--	58	0	62	120
Pete Azure	Howard DGA	51	33	--	50	0	51	101
Ed Novak	Beardmore intlex.	34	47	--	47	5	47	99

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Victum should build and fly model aircraft, visit hobby stores, take family vacations where there are flying contests, pick up some videos of previous contests to show to family and friends (they always enjoy the sounds too!), and spend every weekend of the winter season checking out swap meets.

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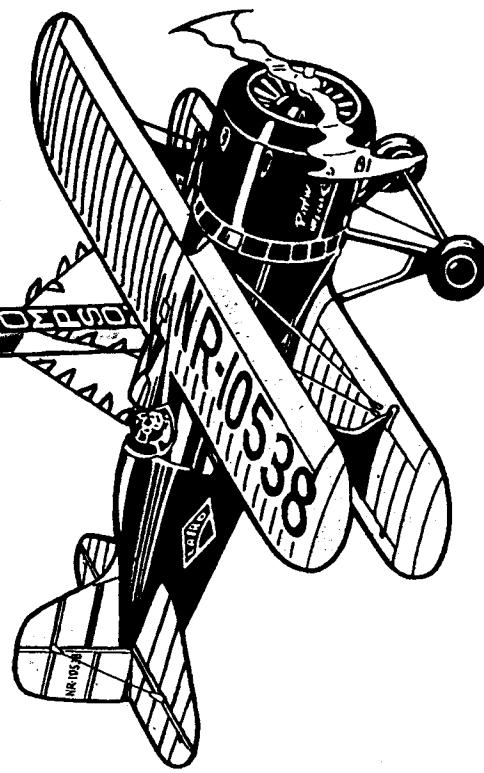
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Geneseo, NY 1997

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This year's T-Shirt and plan from the Geneseo contest. The T-Shirt is as pictured above. The Laird Solution done in black and gold with the FAC logo in red. Pres Bruning did the art work for us. This shirt has to be one of our best! It comes in sizes small, medium, large, X-large, XX-large and XXX-large. Price for the shirt is \$12.50 postpaid.

The plan this year is of the same aircraft and was drawn by Tom Nallen, Sr., another great plan by Tom! Price for the plan is \$4.00 postpaid. Be the first kid on your block to get these plans and T-Shirts.

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LAIRD STORY

CHATTANOOGA'S MOST FAMOUS AIRPLANE

Aerial racing had been dominated by military aircraft in the United States until 1929. That year Herb Rawdon, a young engineer with the small aircraft manufacturer Travel-Air, designed a state of the art monoplane racer and convinced Walter Beech the company president to build it. Being the showman that he was Beech leaked bits of information to the press about the racer, but would not let them see it or know more than it would be powered by a 300hp radial engine. The press gave the ship the name "The Mystery Ship" which Beech liked so the name stuck. Doug Davis of Atlanta piloted the racer in the "unlimited free for all" event of the 1929 National Air Races, and from the moment he took off, he put more and more distance between him and the army and navy ships and won averaging nearly 200mph. This got the attention of the public and air racing became a major spectator sport overnight.

In early August of 1930 Lee Schoenhair who was chief pilot for Goodrich Tire and Rubber Co. called designer-builder Matty Laird and made a firm commitment from Goodrich to sponsor a new racer that could beat "The Mystery Ship" in the Thompson Trophy closed course race that would be the major event of the National Air Races that would be held the next month in Chicago.

In only three weeks time Laird designed and his crew built the Laird LC-DW 300 "Speedwing Special" that he said would be "The Solution" to the problem of how to beat "Mystery Ship." With only a 15 minute flight across Chicago to the race site, to get the ship in trim and to get the feel of it, pilot Speed Holman landed, pulled up to the flight line, a mechanic ran out and with a whitewash brush painted a crude 77 on the side of the fuselage, and Holman took off with the other contestants and proceeded to win the first Thompson Trophy at an average speed of 201mph.

The "Sweet Kiss Toothpaste Company" bought the "Solution" from Goodrich in the summer of 1931 and replaced the 470hp Pratt & Whitney engine with a 575hp Wright. Dale Jackson flew the ship in the 1931 Thompson Trophy event, finishing 3rd at an average speed of 211mph even though he had grazed a willow tree early in the race and torn most of the fabric from the underside of his right low wing.

By 1932 the little Laird biplane racers were through. Jimmy Doolittle had his "Super Solution" completely rebuilt with a larger engine and such refinements as retractable landing gear, but the drag of the second wing was just too much to overcome. The Gee Bee monoplanes with the same engines as the Lairds were at least 30mph faster than the Lairds.

The "Solution" was owned by several pilots some of them making many alterations to it, before it was purchased by Al Whiteside and brought to Chattanooga.

Sometime about May 6, 1940 Chattanooga Al Whiteside purchased what he thought was the Laird "Super Solution" racing plane that Jimmy Doolittle had flown to victory in the first Bendix Trophy cross country race in 1931. Doolittle flew this ship from Burbank to Cleveland Ohio in a little under 10 hours to win the Bendix, and

then proceeded on to Newark, New Jersey, to establish a new cross country speed record of 11 hours and 16 minutes. The was the first time that an airplane had flown across the United States in the light of one day. There were two Laird radial engined racers built, the "Solution" in 1930 for the first Thompson Trophy closed course pylon race and the 1931 "Super Solution" that was built for Doolittle. These two ships were nearly identical, differing in the supercharger gearing and timing of their engines and minor differences around the cockpit, and the larger rounded rudder the "Super" had and in its wheels being enclosed by streamline tear drop shaped wheel pants.

The "Solution" flown by Speed Holman won the first Thompson Trophy at an average speed of 201mph which does not sound very fast for racing aircraft by today's standards; but when you consider that Holman was having to constantly bank around pylons over the 20 lap 5 mile course, dodging other racers, and flying an open wheel fixed landing gear ship fueled with a low octane gas -- he was really moving on. The "Solution" was the only biplane to ever win the Thompson, and it did it with the first prototype Pratt & Whitney "Wasp Junior" engine out of the factory. The ship got wheel pants in 1931 and a new 575hp Wright "Whirlwind" engine and flew by Dale Jackson finished in 3rd place in the 1931 Thompson.

Doolittle flew his "Super Solution" in the 1931 Thompson, but had to use a smaller engine than the ship had been designed to use because of a wing bracing problem. He led the race for the first 3 laps, but overstressed the direct drive "Wasp Jr." causing it to burn a piston, which forced him to throttle back and to drop out in the 7th lap. He rebuilt the "Super Solution" in 1932 to overcome the wing bracing problem. He increased the diameter of the fuselage for larger fuel tanks and retractable landing gear. This rebuild was not a success as using a larger geared engine and the other improvements did not produce the expected 300mph that he and the ship's owner Shell Oil knew would be needed to compete with the Gee Bee R-1 with its 800hp engine. Doolittle had to do a belly landing when the retractable landing gear would not lock down, which damaged it so badly it could not be repaired in time for the 1932 Thompson. He and Shell Oil felt that the ship had so many problems they decided to scrap it. It never flew again after the summer of 1932, and was later partially disassembled and crated.

About 1936 racing pilot Joe Mackey bought the "Solution" and the wings of the "Super Solution" and had them installed on the "Solution". This is the remains of the two Laird racers that Al Whiteside bought and flew from Lovell Field for about 3 years. In 1931 form, the "Solution" had made speed runs at 265mph. Doolittle made one run of 280mph in the "Super" with the large geared engine that cranked out 560hp.

Both Lairds had only a 21 foot wingspan and a length of 18 feet, which made them the smallest airplanes to ever fly a big full size 9 cylinder 987 cu. inch radial engine rated at nearly 600hp. They were extremely dangerous to fly, landing at around 100mph with no landing flaps or shock absorbers. The little rudder lost its steering ability on the ground as the ship slowed, making the pilot's skill, the soft tires, and a burst from the engine the only means of steering it, which meant that they were notorious ground loopers with a built in tendency to nose over. Their brakes were poor.

Laird story continued....

- Flying in Wind • *

Mumbo Jumbo #80 from the pen of the Glue Guru

Salutations, disciples! Today we shall consider flight within strong winds, a fearsome but necessary art for outdoor flyers.

First, how strong a wind is to be tolerated? When does a prudent man retire? Contest Directors are not to be trusted in this regard, for even as the official tent goes out of sight, they will maintain that all is well, dreading cancellation and rescheduling headaches far more than the possibility of damage to your model. Quitting requires your own judgement. There are no laws here, but I've learned to go with the 'backwards-flying-model' constraint: if your circling model appears to be flying backwards when facing into the wind, it's time to quit. At this point the wind speed is slightly higher than that of your model, and while acceptable, implied is twice the landing speed should it happen to land downwind. Contact with many hard surfaced fields (athletic, stubby grass, sun baked mud, etc) will cause damage at this speed and there is the likelihood of flipping over to be considered. Flying within even windier air, the model is unlikely be injured, but it can encounter gusts and turbulence capable of maddening even mild mannered models. The resulting berserk flight paths can be destabilizing. Given the right sequence of turbulent impulses, I've had a Giant Piper Cub perform a perfect tailspin into the ground. Required was a stall followed by a side blast of air, simulating much yaw. To 'pattern fly' so large and heavy a model took some doing, but unfortunately Mother Nature has the necessary resources. Positive actions can be taken to hold down unwanted aerobatics and model loss. These include:

1. Move the CG forward through use of extra clay/solder at the nose.
 2. Retrim the elevator/tail to assume a more nose down attitude. Yes, the glide ratio will be lessened, but survival counts for more than time aloft. Greater fore and aft stability reduces the effect of whip stall, sure to be experienced in turbulence.
 3. Increase downthrust. Stall is to be avoided above all, and downthrust is our main defence when under power.
 4. Change your motor makeup to obtain a stronger initial climb (more crossection) even at the expense of motor length. Cutting through ground turbulence quickly reduces exposure. Once aloft, your model has a better chance to recover from trauma. If you are unsure about eleventh hour crossection changes, try going with a brand new motor - it should offer a bit more torque.
 5. Check your field length for recovery adequacy. Assuming a 60 second flight at a modest wind speed of 10 feet/sec (7 MPH), your model will fly a distance of 600 feet or 2 football fields. Most model fields aren't that long. If a 600 foot flight means parking your model in some unfriendly trees, do you really want to fly? Perhaps the answer consists of reducing turns, to hold down cruise. But if too few turns go in, torque goes down and point (4) is abandoned. Best do some arithmetic on this one!
- When under pressure, introducing all these changes simultaneously is a bit much. As a practical matter, I usually go with (2), in the form of a known tail shift checked out at the home field, and the new motor version of (4). These undemanding alterations are only a partial answer to gust induced hysteria. Equally significant is a model configuration offering some reasonable level of stability, and most important is the wisdom to quit before the trees take to flight.

The Laird racer was so stable horizontally the pilot could not get the tail to drop at landing speed, so a wheels only touch down was necessary. In other words, the ship had to be flown into the ground with no chance of a 3 point as most pilots liked to land a tail dragger.

It is a real tribute to Al Whiteside's flying skill that he was able to fly his little Laird, which was one of the most famous racing planes ever built, for several years and we who witnessed these flights got to see a bit of "The Golden Age of Air Racing." The Gee Bee Z used the same engine in 1931 when it won the Thompson that had powered the "Solution" in 1930. To realize the importance of the early 30s Thompson Trophy racers you have to realize that they had about the same horsepower and wing loading per square foot of wing area that the 1,600 hp fighter plane of World War II had. The difference in speed was largely a result of the pioneering in engines and streamlining that grew out of the ships that flew in the Thompson and Greve Trophy races during the 1930s.

At the time Whiteside owned the Laird it was no longer competitive as a racer. Most of the ships that competed in the 1937-39 races were sleek designs powered by Menasco inline engines that gave them 350mph capability. Al flew his Laird in air shows, going into a shallow dive as he approached the field and doing a speed run over one of the runways at low altitude as the announcer told the spectators that they were watching Al Whiteside in his famous Laird Racer that had flown in the Thompson Trophy race.

Whiteside sold the racer to a North Carolina pilot who tore it down to the frame to restore it, but found it too much of a job for him. The New England Air Museum acquired the Laird in 1964 and has Holman completed restoring it to look as it did in 1930 when Speed Holman won the first Thompson Trophy in it. It is one of the few surviving "Golden Age" racing planes, and thankfully, it is now on display at the Windsor Locks, Connecticut museum.

to be continued....

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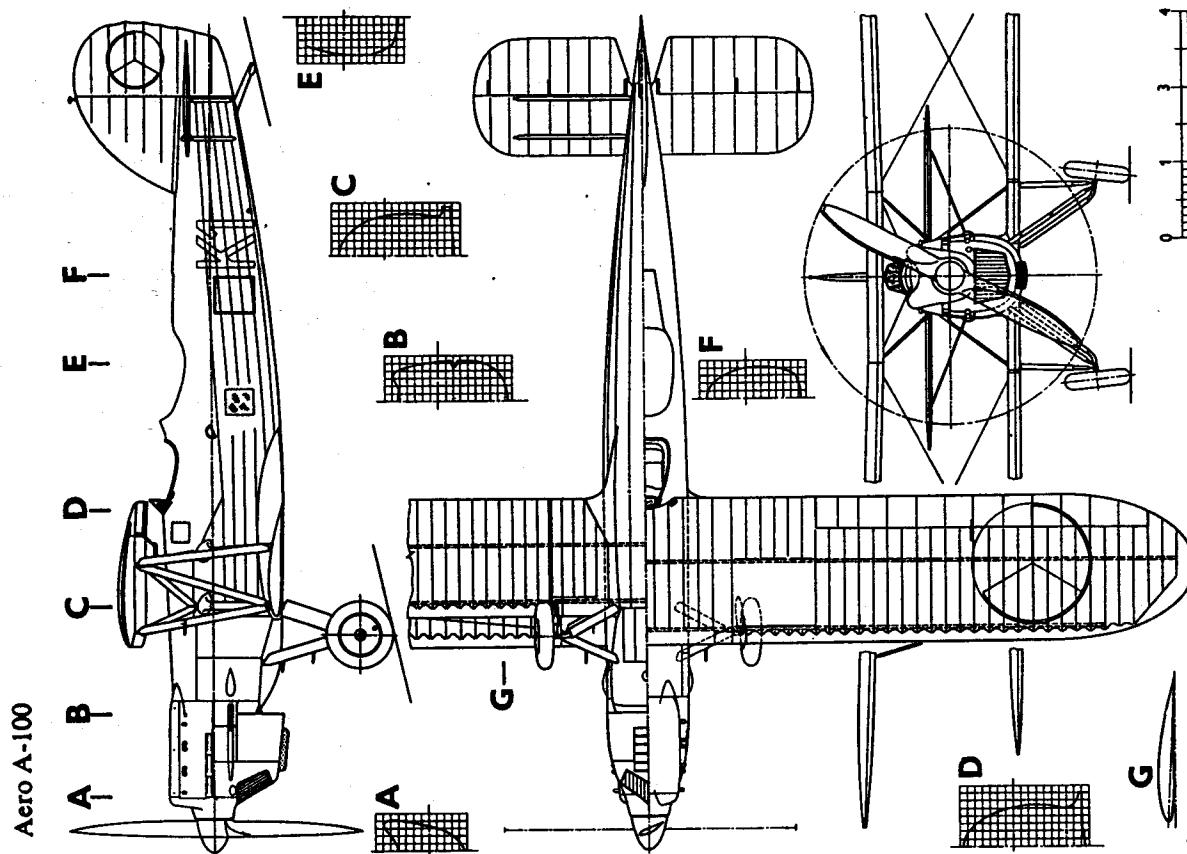
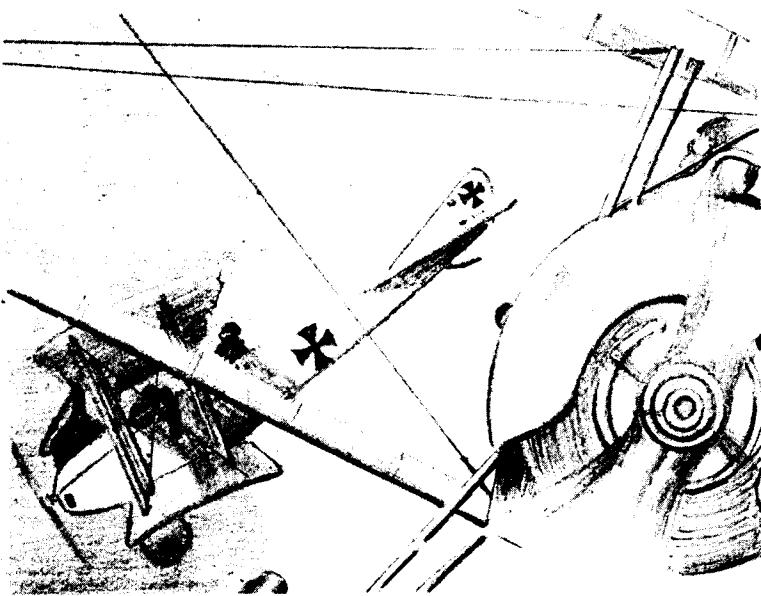
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14.

did you know...?

- That the "greatest hero of the war" was a Frenchman who was believed to be tubercular and consumptive?
- That his body was so puny and frail it seemed incapable of performing the most arduous and strenuous duties that a military life demanded?
- That the unconquerable, patriotic fervor that burned within him had carried him through two years of intensive aerial warfare?
- That this slight, frail youngster, at the age of 21 years, had earned the highest military awards and honors that his grateful country could bestow?
- That at the tender and young age of 21 years he commanded one of the most famed fighter squadrons on the whole of the Western Front?
- That while very ill and slowly dying of a dread disease, he engaged in countless air duels and recorded 53 confirmed air victories to become the second highest-scoring ace in all the French Air Service?
- That his mysterious death was not accepted by his grieving countrymen who still persist that he yet lives?
- That he is a legend to all the school children of France?
- That he was one of the very few WWI air aces to have his likeness featured on the postage stamps of his nation?
- That he was *Georges Marie Ludovic Jules Guynemer, SPA 3!*



Color scheme--O.D. on top surfaces
Gray on lower surfaces
Insignia--standard red
white and blue with
white lettering.

Submitted by Rick Dort.

THE GOLDEN AGE

by
Fran Ptaszkievicz

A GOLDEN AGE AIRCRAFT IDENTIFICATION QUIZ. Remember how much fun this was all you "Oldtimers"?

Sponsored by a local newspaper in the early 1930's, this set of 3-views, drawings were published and the contestants were requested to send in their answers on what was at that time a "penny" postcard.

Prizes in the form of gift certificates good at local hobby shops and paid for by the newspaper were awarded to boys as well as girls entrants having the most correct answers.

Three dollars worth of kits or model material was a godsend to many a financially strapped modeler back then. Truly a "Kings Ransom"!

Also, every entrant regardless of the number of correct answers received a 25 cent certificate which could purchase two ten cent kits and a nickel tube of glue. You could of course opt for a large 25 cent model kit, but for many of us quantity was the way to go!

Maybe a Megow solid and a Comet flying model, or a couple of either would keep us busy building for a while.

It was said that many young people flocked to the aviation sections of their neighborhood libraries in an attempt to verify their answers. This to both the joy and dismay of many of the local librarians who were puzzled by the sudden interest in young people visiting their library, many for the first time, who realized the usefulness that a free library could provide.

Here again was a good example of how many, local city newspapers were earnestly promoting the cause of aviation to the youth of the time. An interest that in many would grow and provide our country with aviation oriented people for years to come.

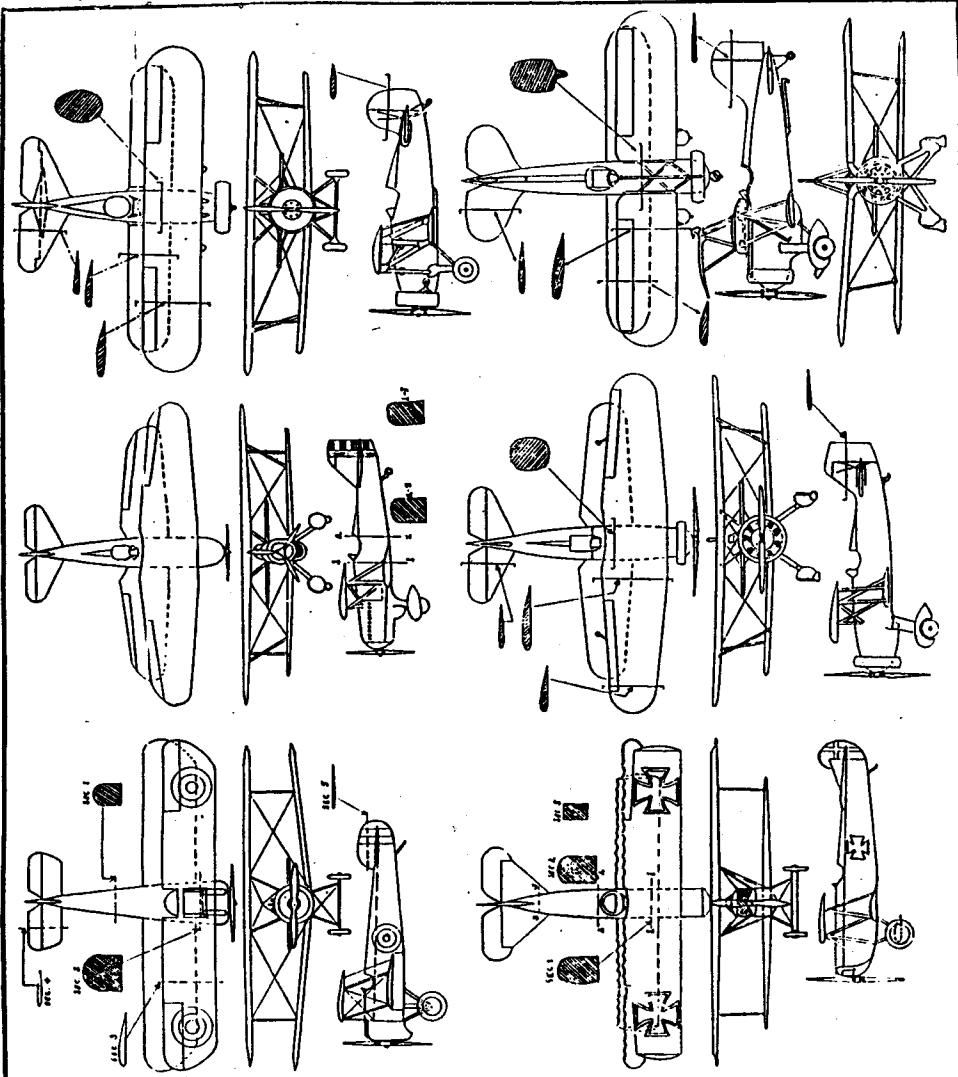
Biplanes were featured in this particular contest as they were still considered to be a good fighter design, although the monoplane fighters were already on the drafting boards of many companies.

Now the answers.....

In the upper left hand corner we have a British WW-I fighter, the Sopwith "Camel". Upper center is the Curtiss F6-E "Hawk". The upper right hand corner has the Boeing P-12E.

In the lower left corner we have the German WW-I Fokker D-VII. The lower right hand corner has the drawing of the tiny fighter designed for the dirigibles U.S.S. "Akron" and the U.S.S. "Macon", the Curtiss F9C-2 "Sparrowhawk". Notice what was considered "GOOD" 3-views in those days. Not bad, but certainly not what we look for today.

WANTED: Where to buy a copy of Bjorn Karlstrom drawing of the Blériot-Spad 510 or can anyone supply me with a copy? Ken Race, 906 Liberty Ct., Cupertino, Ca. 95014-4018.



EMBRYO (15 entries)

<u>Pilot</u>	<u>Plane</u>	<u>1st</u>	<u>2nd</u>	<u>3rd</u>	<u>Bonus</u>	<u>Total</u>
1. Paul Boyanowski	RAF Cadet	113	100	120	9	342
2. Roger Moon	Tomahawk	100	55	120	-	275
3. Fred Wunsche	Tomahawk	53	63	120	9	245
Roy Courtney	Patriot	50	62	120	9	232
Len Wieczorek	Snowflake	120	--	--	9	129
Curt Haskell	Hawk	47	35	48	9	139
Bob Isaacks	Casino	47	79	38	-	164
Herb Kothe	Go-Devil	120	120	--	9	240
Stew Meyers	Asymbryo	50	97	--	-	147
Lloyd Shales	Honey Bee	58	27	52	-	137
Nike Nassise	Roxbury Rocket	59	45	96	6	200
Jim Anderson	Hornet	32	36	37	-	105
Tim McDonald	Purple Zippy	120	90	--	9	210
Bob Bojanowski	Red Hawk III	53	48	107	9	222
Sam Burke	Rainbow	53	--	--	-	53

15

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1/1024" x 14	36	43	1/2" x 3/4"				
1/2048" x 14	36	43	1/2" x 3/4"				
1/4" x 15	36	43	1/2" x 3/4"				
1/8" x 15	36	43	1/2" x 3/4"				
1/16" x 15	36	43	1/2" x 3/4"				
1/32" x 15	36	43	1/2" x 3/4"				
1/64" x 15	36	43	1/2" x 3/4"				
1/128" x 15	36	43	1/2" x 3/4"				
1/256" x 15	36	43	1/2" x 3/4"				
1/512" x 15	36	43	1/2" x 3/4"				
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1/128" x 19	36	43	1/2" x 3/4"				
1/256" x 19	36	43	1/2" x 3/4"				
1/512" x 19	36	43	1/2"				

1. Level your model with small boxes, blocks & shims of wood until the incidence meter mounted on the horizontal tail shows zero degrees.

- Without disturbing the level model, put the meter on the wing leading edge & trailing edge & read the difference in degrees between the wing and tail.

If you want more elaborate instructions you might read the Robart incidence meter package at a hobby shop or R/C friends house. This is a flea weight & small version of the Robart meter.

Bill Schmidt

PHOTO PAGE:

Left column: Jenna Pepple from the FAC Sparrowhawk Squadron from New Waterford, Ohio working on her Peck R.O.G. during a building session at her church. When finished, the model did 44 seconds. Photo by Bill Harding.

Jumbo Waco Custom from an enlarged plan that appeared in the FAC Newsletter, and a Megow Waco Cabin Dime Scale. Builder

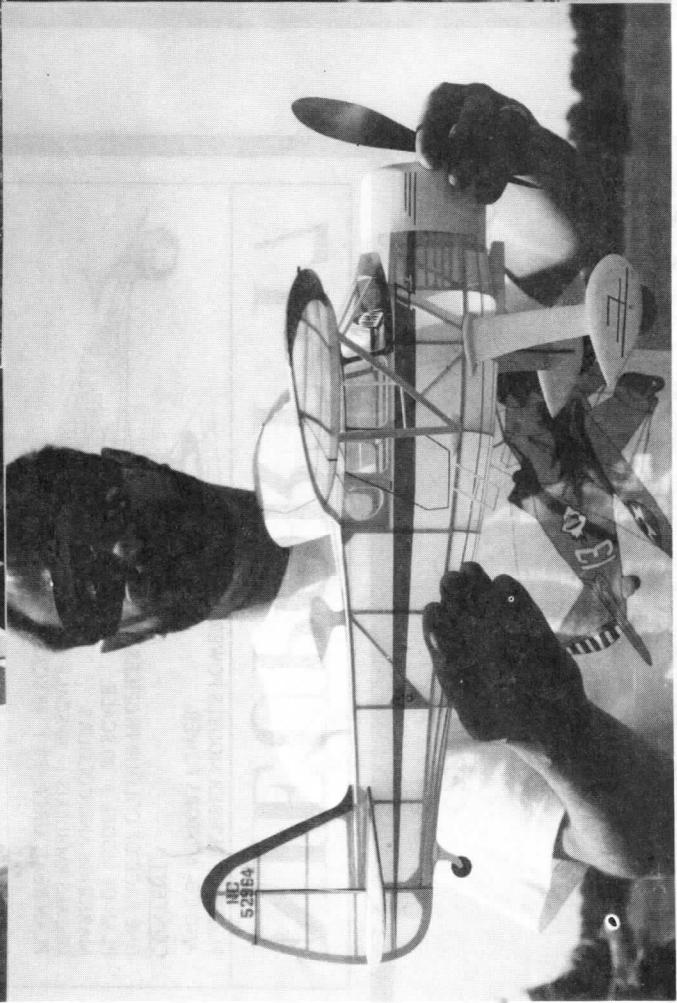
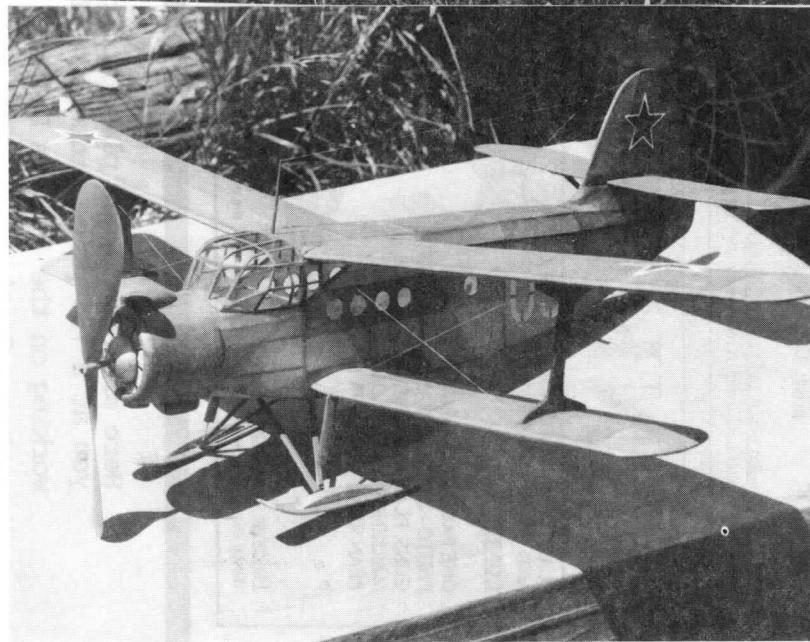
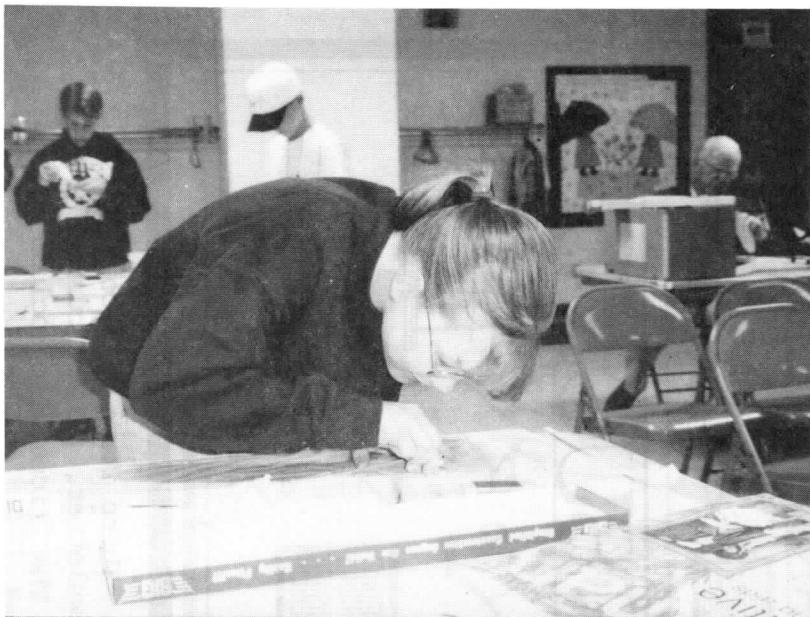
Chris Starleaf says both are terrific fliers. Photo by Chris.

Les Burdsal's Ant-2 Jumbo on skis. A super flier! Photo by Chris Starleaf

Right column; Model of a F.R.E.D. by Rick Dort. Plan came from an Old Model Builder magazine. Rick says she's a fine flier and will

photos of the real aircraft and a 3-view for just three 32¢ stamps. Rick Dort,
1709 Blankenship #8, West Linn, Or. 97068.

Jack Tisina's Howard DGA-15 built from a Megow plan. Model spans 30 inches and is a super flier. Photo by Chris Starleaf.



LIMITED ISSUE!

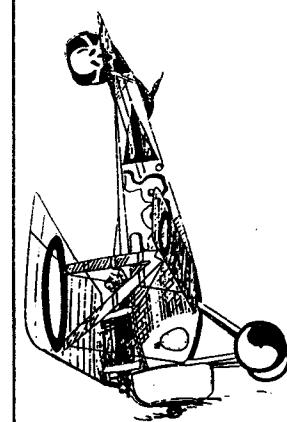
PHOTO - ETCHED BRASS PARTS

1:20 SCALE



price:
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NIEUPORT 17



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RADEK GREGOVSKÝ
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AND CO₂ MOTORS POWER
CONTENT:

ONE PAGE OF COLOUR PROFILES,
PLAN OF MODEL 1:20 SCALE,
MARKINGS AND COLOURS,
DECALS EMBLEMS 1:20 SCALE
PLAN REAL AIRCRAFT 1:48 SCALE

JUNKERS D.I



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VOLUME 2

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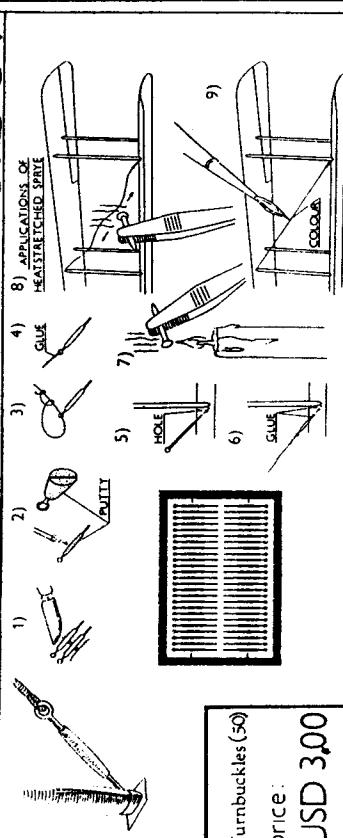
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PLANS OF RUBBER MODELS POWER
AND CO₂ MOTORS POWER
CONTENT:

ONE PAGE OF COLOUR PROFILES,
PHOTO - ETCHED SPANDAU MACHINE
GUNS, PLAN OF MODEL 1:20 SCALE,
MARKINGS AND COLOURS, DECALS
PLAN REAL AIRCRAFT 1:48 SCALE

Here are some great plans and photo etched brass parts for you Skysters. These items will come to you at a 15% price reduction if you mention you saw the ad in the FAC newsletter. We are currently working on the Junkers D-1 and hope to have a report in the next issue. The prices also include postage, Great deal! Well worth the money. Address above the Niueport ad.

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Turnbuckles (50)
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PAN AM'S "FLYING CLIPPERS"

by Jim Whelan

The Consolidated "Commodore" flying boats became Pan American Airways "Flying Clippers."

Pan American Airways chief, Juan Terry Trippe acquired the passenger model Consolidated "Commodore" flying boats from the financially troubled New York-Klo Airways. By buying these assets, he gained a fleet of aircraft exactly suited to the needs of the fledgling airline. At that time Mr. Trippe had negotiated a cooperative venture with the Postmaster General and the State Department to develop regular airmail service throughout the Caribbean, Central and South America. The government viewed such a service as essential to long term commercial development between Latin America and the United States.

Miami, Fla. was chosen as the best place to establish operations. Eastern Airlines had regular service to Miami and would be a good separate augment to Pan American's flights. Just south of the city was Dinner Key in the old town area of Cocoanut Grove. During World War One, the Army Air Service had built a flying boat training school at Dinner Key. After the war, the U.S. Coast Guard moved into the site. The Coast Guard set up a patrol base at the well developed flying area adjacent to the ~~air~~ Pan America would develop.

Trippe was contractually obligated to begin flight operations shortly after the agreements were signed. Temporary operation facilities were constructed at the lower edge of Dinner Key. A large wooden dock was built. A houseboat served as an operations and passenger terminal. Fueling and work platform barges were used for on-water servicing. A rough wooden beaching ramp and a couple of temporary buildings served as a spare parts and maintenance facility. While the was being constructed, PAA Chief Pilot, Captain Edwin Music and Charles Lindbergh in a Sikorsky twin engined S-39 Duck amphibian were engaged in airway route surveys. The mapping of routes and port appraisal studies were essential prior to the start-up of regular service.

The long range distances involved dictated the use of flying boats. These aircraft were the only suitable machines available. Throughout the hemisphere, aviation facilities were either primitive or non-existent. However, most of the long range destinations had excellent harbors. Looking ahead, Mr. Trippe had engaged Igor Sikorsky to design and build a series of large, four engined flying boats for an expanding service.

As soon as the Sikorsky amphibians started service from Miami the Fokker trimotor, Havana-Key West route was phased out and flying boat service was inaugurated from Miami to Havana Cuba. Pan American would continue to develop landplane service in other regions, with the commencement of seaplane service at this point in time, this became the mainstay of the business. Soon after the "Ducks" established the shorter routes, the Consolidated "Commodores" were phased in on the longer routes as the "Flying Clippers".

The sturdy built, all metal, twin engined, long range Consolidated "Commodore" flying boat was well suited to the task. The aircrafts simplicity and dependable Wright engines served Pan American well in its "down the Line" operations. A reliable aircraft was essential in the early days, maintenance and repair facilities were far flung and of very limited capacity.

The passengers could enjoy sightseeing through the large cabin windows seated in comfortable leather seats. Otherwise the passenger compartments were very

spartan. To conserve weight the interior was bare metal. With no sound proof insulation or head liner the sound level was deafening. The Flight Steward could maintain some comfort in the cabin by adjusting the opening of the sliding boarding hatch in the rear of the fuselage. The Steward also communicated with the cockpit by a series of jerks on the flight control cables exposed in the top of the hull. The tropical operating area and low flight altitudes did not require cabin heaters. In those latitudes, especially in the summer months squalls and thunder storms frequently gave the passengers an uncomfortable ride.

In flight service for the passengers was superb. The well trained, multi-lineal Flight Stewards were very skilled at making the passengers comfortable and the flight as enjoyable as possible. Excellent cold meals were served on china and silver services. The collapsible compartments tables were spread with fine linen and napkins. Bar service was available on request. In flight smoking was permitted, ashtrays were provided.

This writer had a conversation in the late sixties with a friend of the family. The man was a soon to retire Pan Am Captain who had flown the "Commodores". He had recently been rated to command a Boeing 707 and could speak well of his early flying experiences. I asked him what the "Commodores" were like to fly. He replied, "Really clumsy!". The plane was slow, but a stable and predictable aircraft with not many nasty traits. The flight control response was sluggish, "move it and wait". Take-off runs, very long and low climb rate. True cruise about 90 mph. Long distance flight required close attention to cruise control trim and fuel management. In the early days night flying was considered too dangerous.

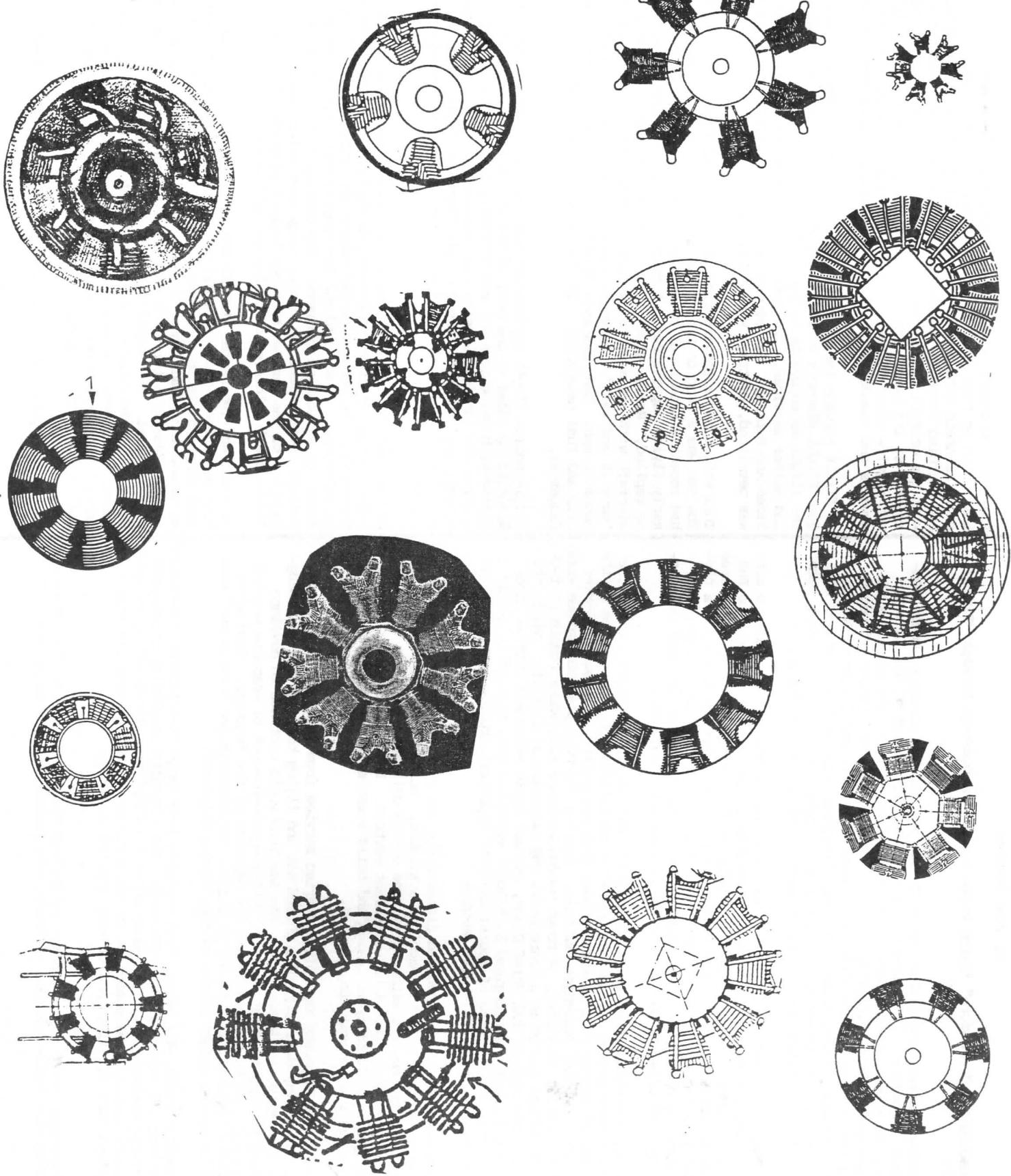
Single engine flight performance was marginal. The ground adjustable propeller windmilling added to the drag of the struts and pontoons plus the angular hull. Flying with one engine out was extremely taxing on both pilots. In this configuration the landing decision was irreversible, the aircraft had no "go around" capability. The worst dread of all "Commodore" pilots was an uncontrollable engine fire. The flames would spread to the fabric covered wings and the plane doomed!

By the late thirties the "Commodores" were nearing the end of their service lives. Metal fatigue, corrosion and hard use made maintenance increasingly expensive. The newer Sikorsky aircraft had replaced the "Commodores" on most major routes. When World War Two erupted Pan American converted the "Commodores" to navigation trainers. The company had been selected for this contract because their expertise in long range over water navigation. Throughout the duration of the war Pan American trained hundreds of air navigators. So the "Commodores" soldiered on to the end of the war.

As World War Two neared its end Pan American decided to phase out the flying boat operation. The availability of large long range aircraft had improved land airports precipitated the decision. In the mid-thirties Pan American had developed the Miami Dinner Key base into the finest seaplane terminal in the world. Shortly after war's end, Pan American deeded the redundant site to the City of Miami. The magnificent Art Deco terminal was remodeled and became City Hall, the maintenance hangars, a yacht repair company. The seawalls and launch areas over the decades were developed into a large marina. These historic buildings are still in use sixty years later. The area in front of city hall has an historic plaque, it is named "Commodore Plaza".

Surely the spirit of Juan Trippe is pleased with his legacy.

DRESS UP YOUR COWL
by Jake Larson



My First Out of Sight Flight

For some reason, it was against the rules of the Catholic church to belong to the YMCA when I was kid. My father however, didn't agree with this even though he was the Grand Knight at the Knights of Columbus. So we got to go swimming at the "Y". About this time, the "Hawk" plastic models were produced and were available at Pete Dillon's Hobby Center. Pete had won the first Payload free flight event at the Nationals back in the '30s hauling a big Burgess battery in his Class "C" gas job.

My first "Hawk" plastic model was the Curtiss R3C2 floatplane racer. It came cast in grey plastic, and was fairly big, with about an 8" wingspan. I built (assembled) it and took it down to the "Y" to float it in the pool. It didn't float. It put up a little struggle, but sank. I did notice though, that didn't just sink, it seemed to be stalling all the way down, like a flying model just out of balance. So, when I got home, I discussed this with my dad, and we decided to add weight to the nose.

We did this by heating a nail and pushing it into the hole where the prop went. Then, dad suggested making the control surfaces movable, or at least bendable. We scribed the hinge lines so the elevators and rudder would bend. My older brother Phil, and several of our friends who were also "Y" members and model builders built plastic models and we took them to the pool. Our swimming instructor was a great guy named "Bart". He allowed us to put our "toys" in the pool and fly them under water. Bart then got a hockey puck from somewhere, and he initiated a competition. He would throw the puck into the pool, pick out a launching point along the edge of the pool, and we would put our models in the water, shake out the air bubbles, and "Glide" them toward the puck.

By cutting the edges of the ailerons with one of my dad's jewelers saws, we could get the models to bank or roll. It was great fun to watch them from under water wearing goggles. One day, I launched my Curtiss biplane racer and it spun down at the deep end of the pool and was gone! There was a drain there and the cover for it had been removed and the maintenance men had neglected to replace it. The Curtiss dove right into the pipe. Wherever the drain valve was, it was closed, so no water was running out, but it was impossible to reach the model. When Bart found out that this big drain cover was off he made us get out of the pool. My model had "flown" out of sight. About two weeks later, I got my model back, intact but loose in a couple of places. I guess they were cleaning out a big filter just in front of a pump or something. My model stopped there. So did our "flying" sessions because it was decided that these foreign objects shouldn't be allowed in the pool. It was great fun for the short time it lasted, and it produced at least one Out Of Sight "flight".

Ralph Kuenz

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NO-CAL SCALE (15 entries)

Pilot	Plane	1st	2nd	3rd	Total
1. Don Lang	Mustang	118	317	210	645
2. Larry Peavey	Chambermaid	222	373	--	595
3. Ken McConnell	Maule M-5	163	124	94	381
Greg Gallo	Firefly	39	23	97	159
Ken McConnell	Rare Bear	70	76	65	211
Curt Haskell	Hot Canary	50	25	43	118
Bob Clemens	Curtiss XP-13C-1	91	120	102	313
George Lewis	Gosling	44	38	105	187
Jack Barker	Lavochkin LA-5	43	46	50	139
Bob Bojanowski	B-"S"	105	108	136	349
G. Cramer	Centurian	108	57	98	263
Vet Thomas	P-38	46	37	44	127
John Houck	TBD-1	105	54	38	197
Glen Singers	P-40	32	22	25	79
Jack Noll	HE-100D	91	78	82	251

DIME SCALE (13 entries)

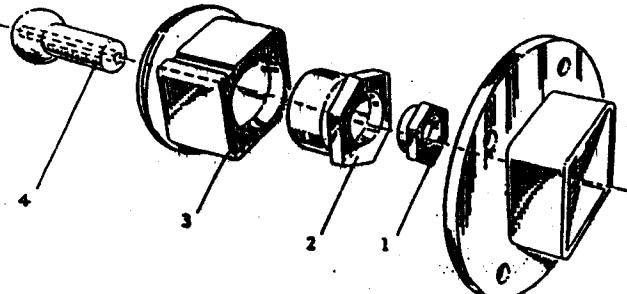
Pilot	Plane	1st	2nd	3rd	Total
1. Pete Azure	Ong Continental	39	105	120	264
2. Dan Driscoll	Corbin Ace	66	57	100	223
3. Steve Griebling	Puss Moth	63	57	63	183
Richard Zapf	BF-109E	34	--	--	34
Claude Powell	Ong Continental	51	75	46	172
Stew Meyers	Megow Nieuport	69	30	78	177
Vance Gilbert	Fairchild	28	--	--	28
Gordon Roberts	Monocoupe	77	54	50	181
Mike Nassise	Cessna C-37	36	44	27	107
Paul Boyanowski	Iuscombe	120	--	--	120
Jack McGillivray	Arado	120	--	--	120
Bob Marchese	Curtiss Robin	27	29	39	95
Ed Novak	Taylorcraft	29	28	--	57

JIMMY ALLEN (11 entries)

Pilot	Plane	1st	2nd	3rd	Total
1. Herb Kothe	BA Cabin	120	120	120	360
2. Sam Burke	Skokie	120	120	120	360
3. Stu Weckerly	Bluebird	111	120	120	351
David Seath	Bluebird	79	120	88	287
Vet Thomas	BA Cabin	51	114	69	234
Dan Driscoll	Special	76	55	42	173
C. Schobloher	Skokie	69	120	36	275
Don Strull	Skyraider	120	120	110	350
Ralph Kuenz	BA Cabin	56	28	42	126
Vic Nippert	Bluebird	77	95	109	281
Bob Laybourne	Skokie	120	92	65	277

2.

22.



Knight & Fridham Ltd.
Adjustable nose button.
Drawing by Jim Newman.

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Adjustable nose buttons now available from Dr. Diesel. Suitable for models from 13" to 30" spans. Only \$4.00 each plus 50 cents postage.

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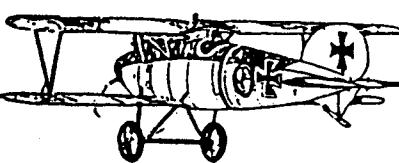
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Time 8:30 am until 4:30 pm each day

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Muncie, Ind.

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Name _____ AMA No. _____

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Entry fee \$25.00 flies all events. Please send before August 15th if possible.

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Awards through third place. All contestants must be members of the AMA or MAAC.

Schedule

Saturday Aug. 30

- World War One *
- Greve Race *
- FAC Scale
- Golden Age Military *
- Dime Scale
- Golden Age Civil
- Old Time Stick
- No-Cal Scale
- Jimmy Allen

Sunday Aug. 31

- World War Two *
- Thompson Race *
- Power Scale
- Jumbo Scale
- Peanut Scale
- Embryo Endurance
- Old Time Rubber
- Modern Civil
- Modern Military *

* Mass launch events.

Dime Scale models can only fly in that event.

Golden Age Military must have gear down.

Both Old Time Rubber events must have all flights turned in by 2:00 pm each day. This gives us ample time for fly-offs.

Make sure you have your proof of scale for all events!!!!

PIPER PACER PA-20
PAUL BOYANOWSKI

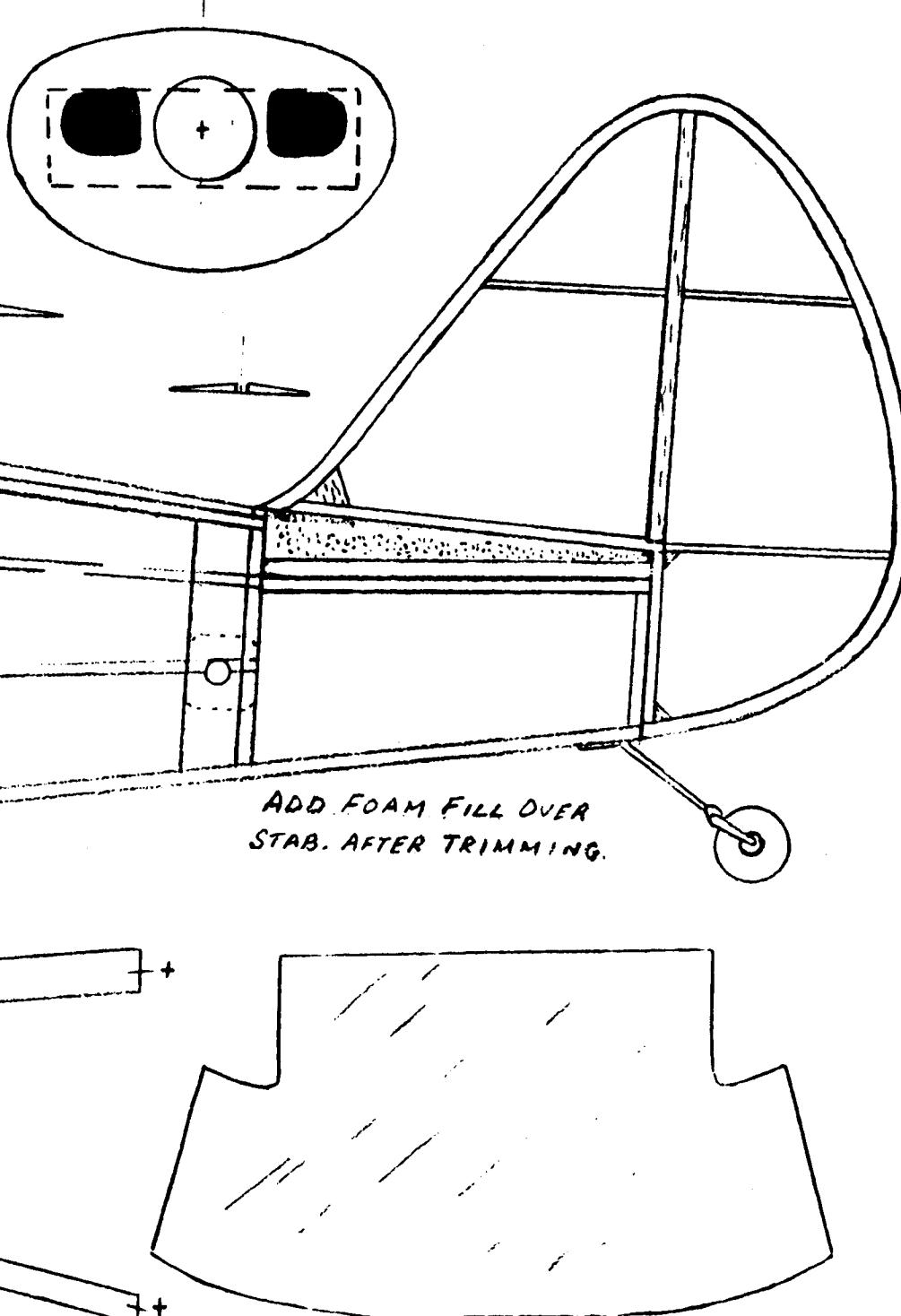
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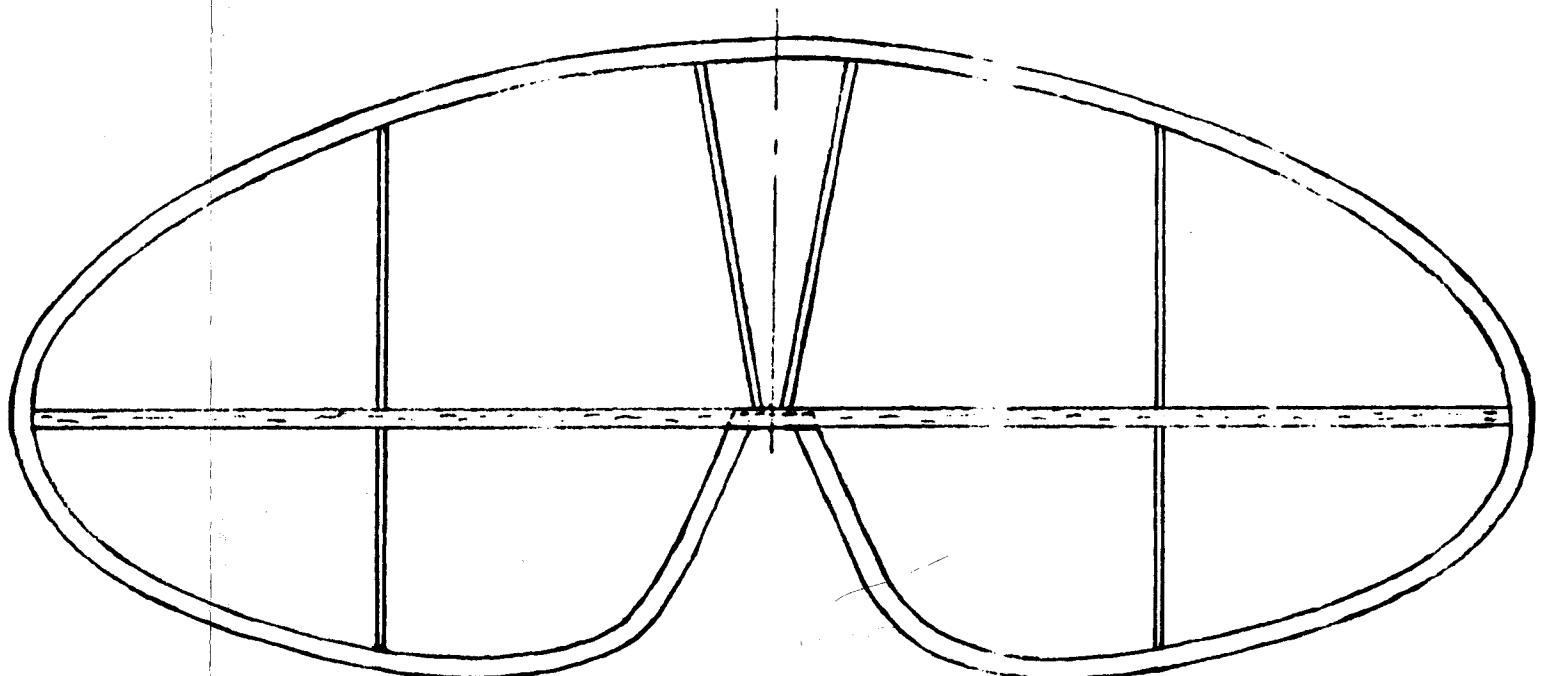
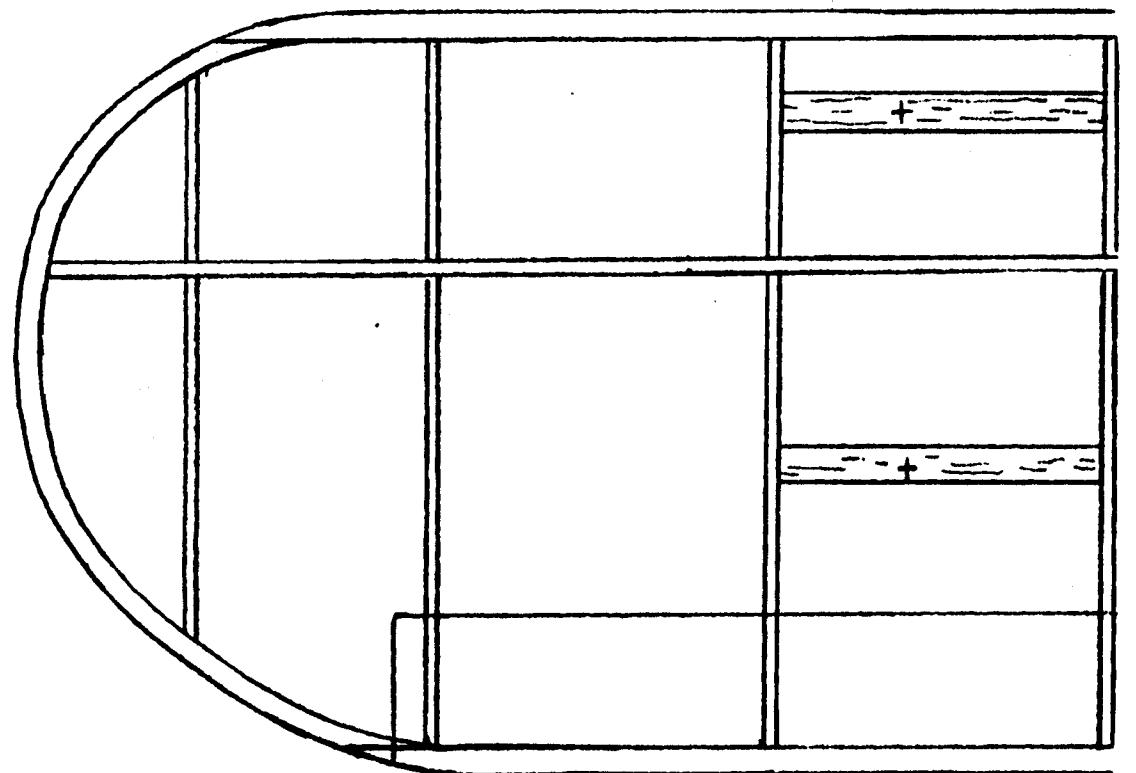
-----: $\frac{1}{16}$ " SQ. WINDOW FRAME
APPLIED TO FUSELAGE SIDE FRAME, TAPER TO
TOP LONGERON AND HERE -

PLANK COWL TOP, FILL SIDE AND
BOTTOM WITH FOAM.

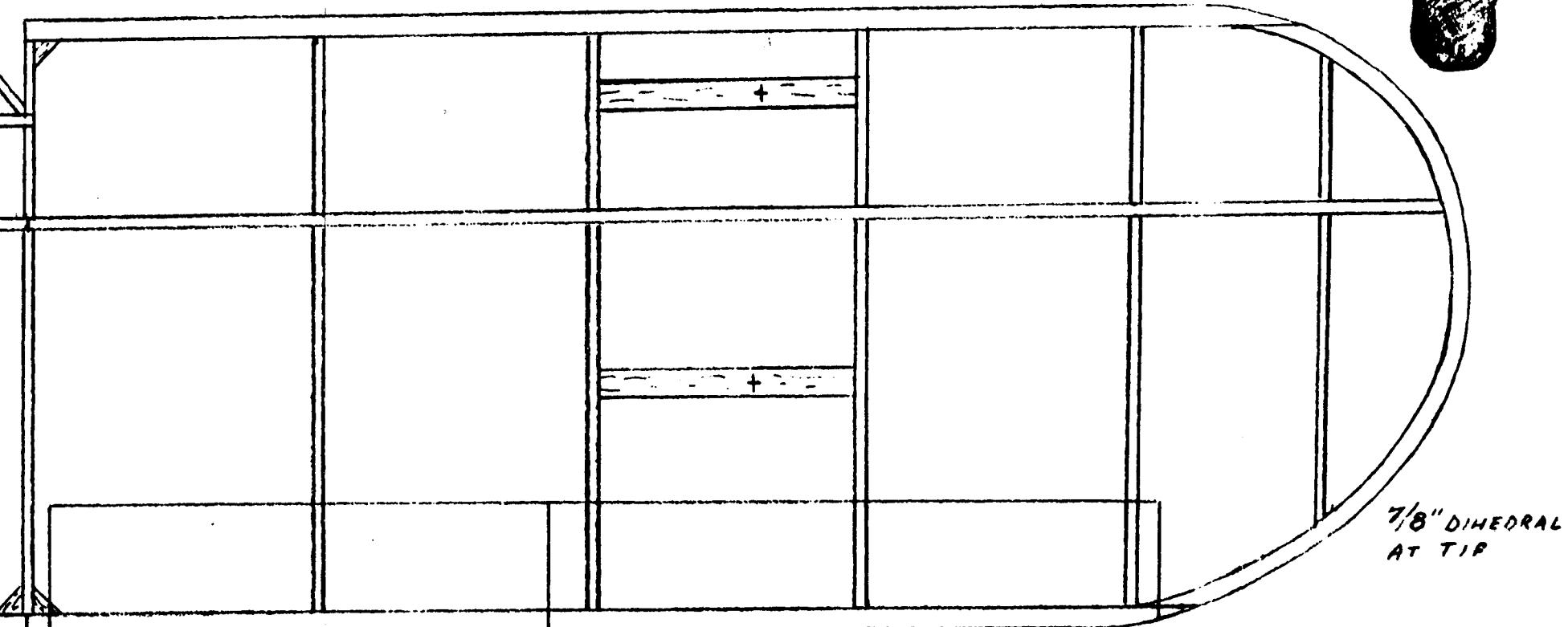
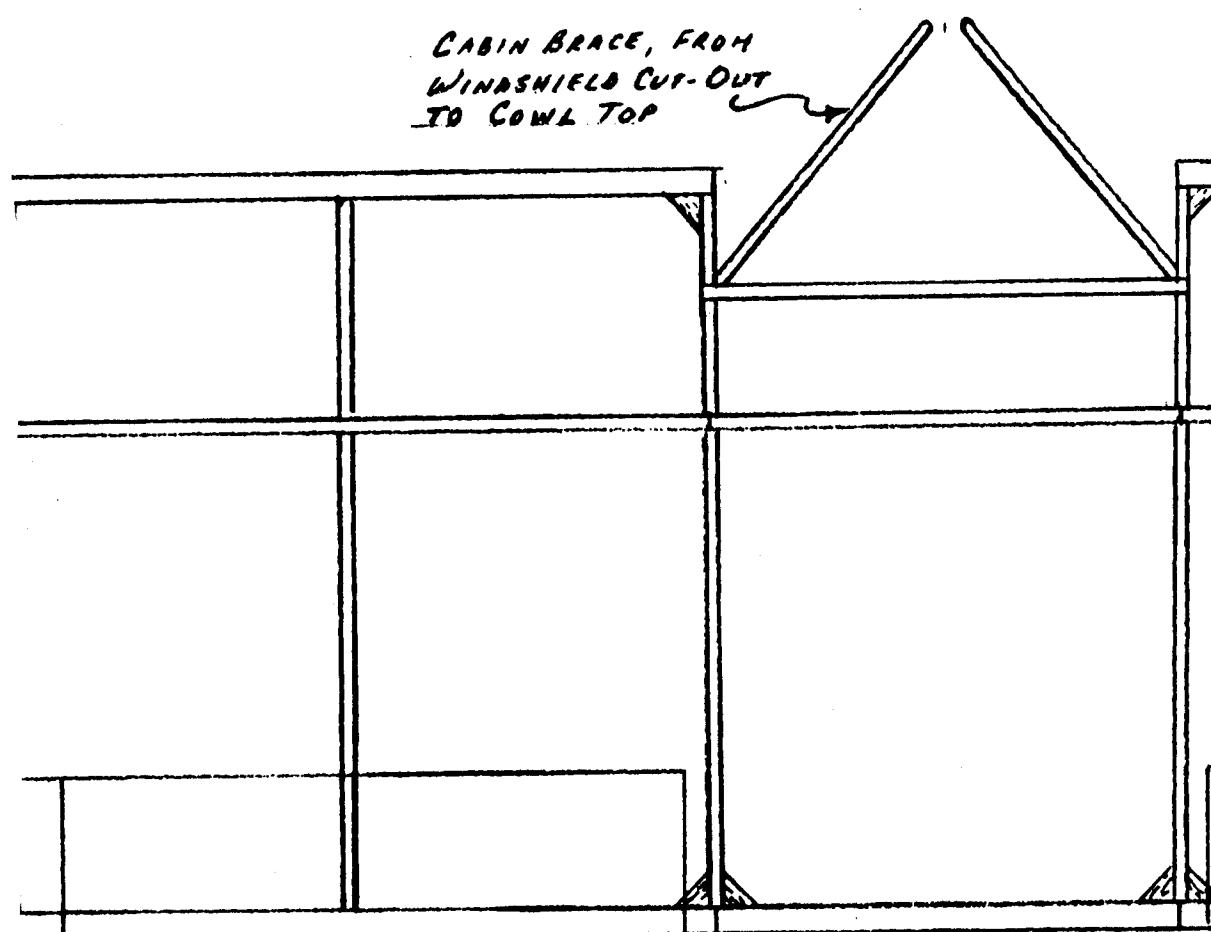
ADD FOAM FILL OVER
STAB. AFTER TRIMMING.

REMOVE THIS TOP
CROSS BRACE AFTER
INSTALLING WING,
AND BEFORE ADDING
CABIN BRACES.



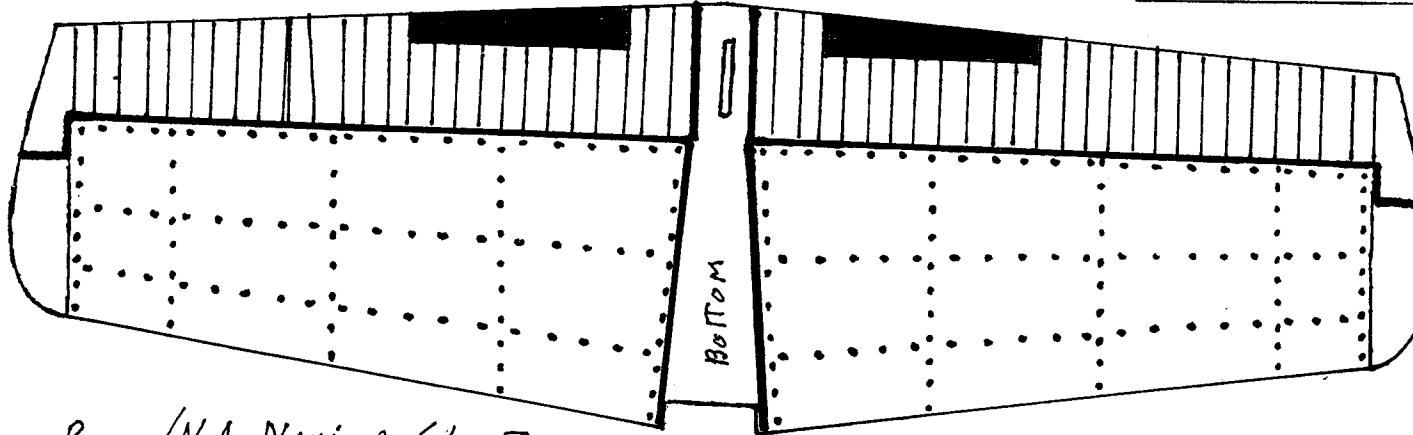


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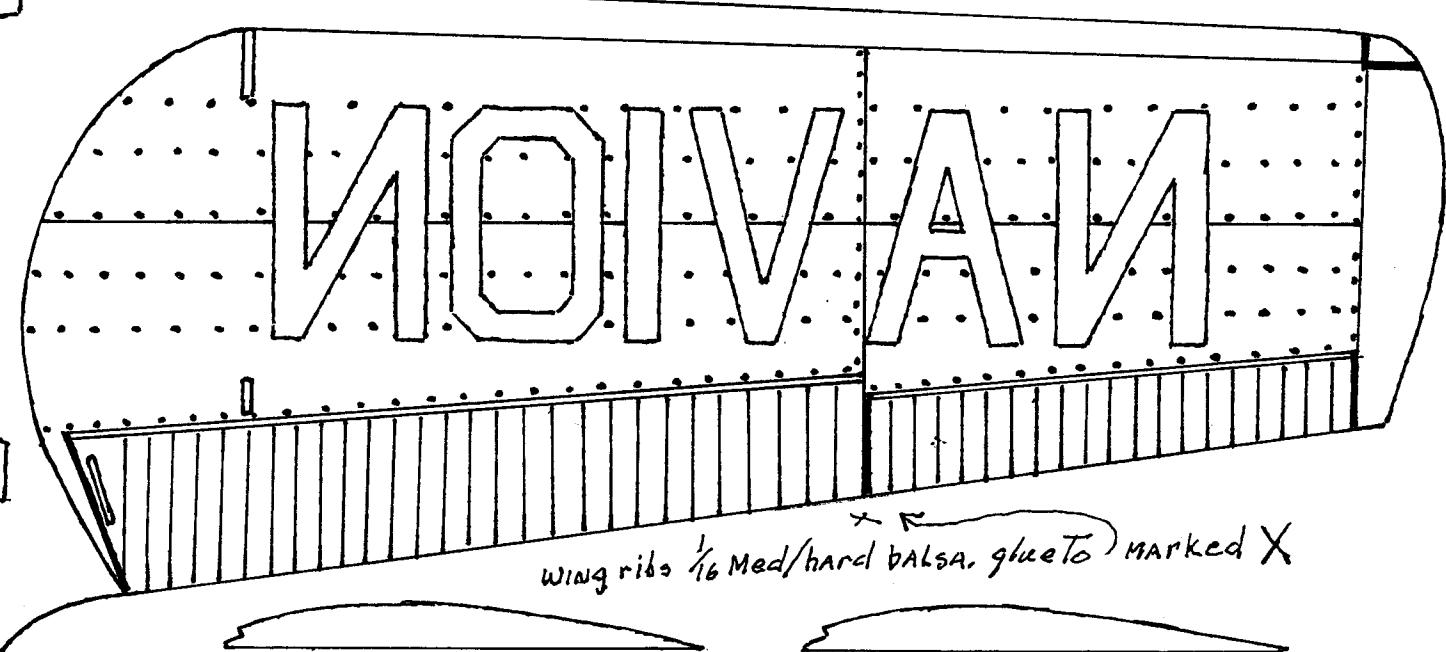
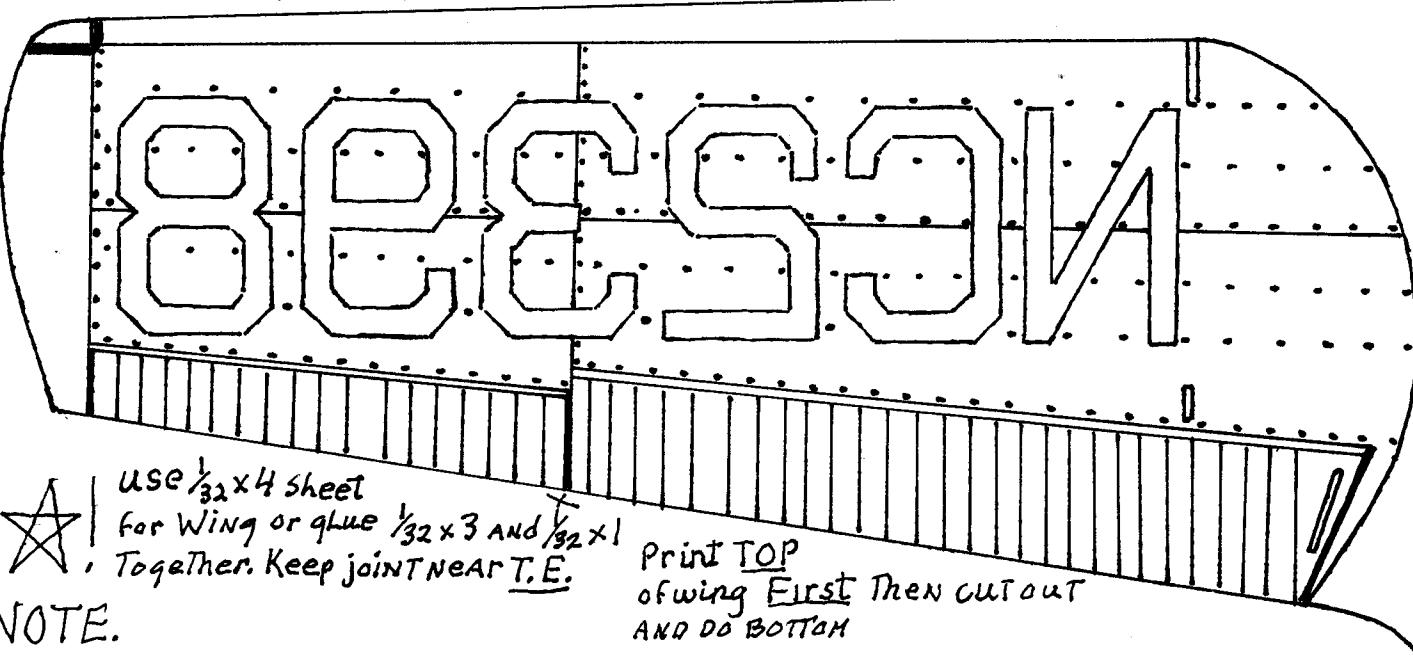
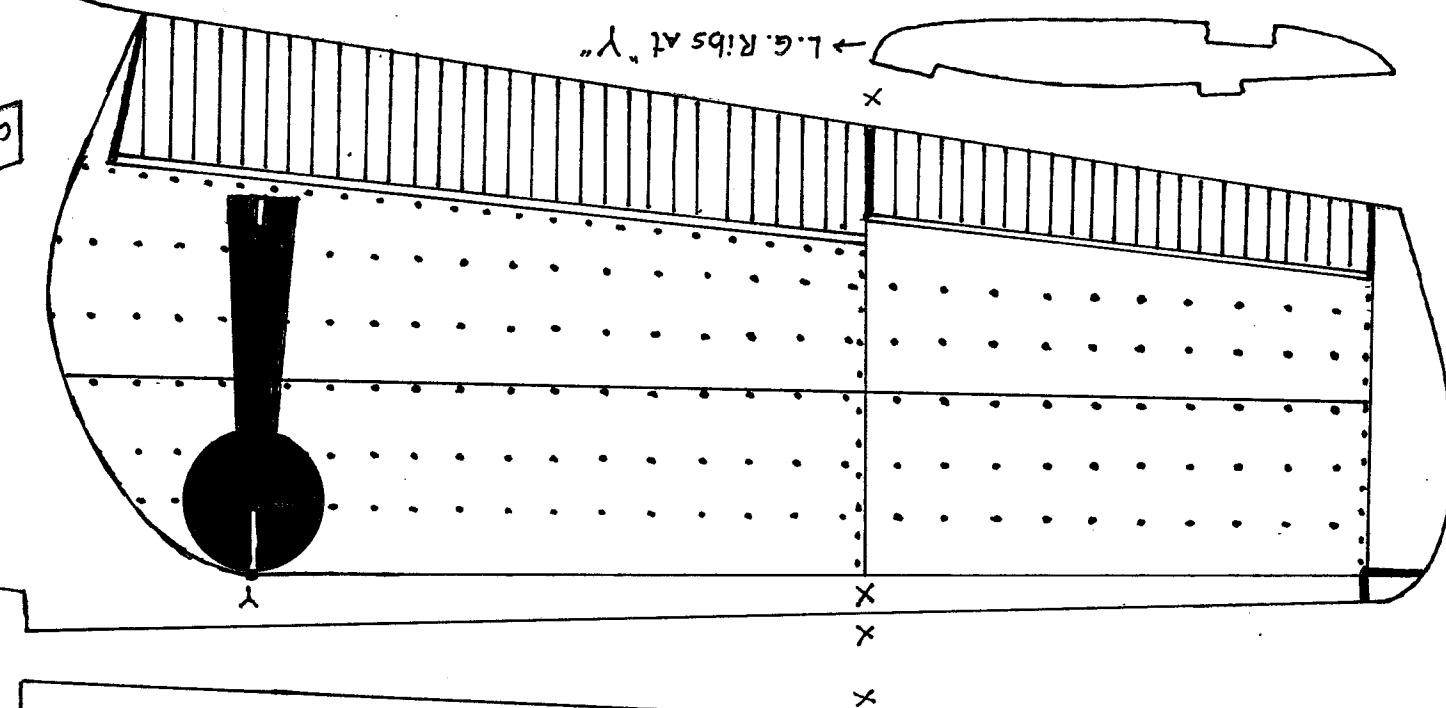
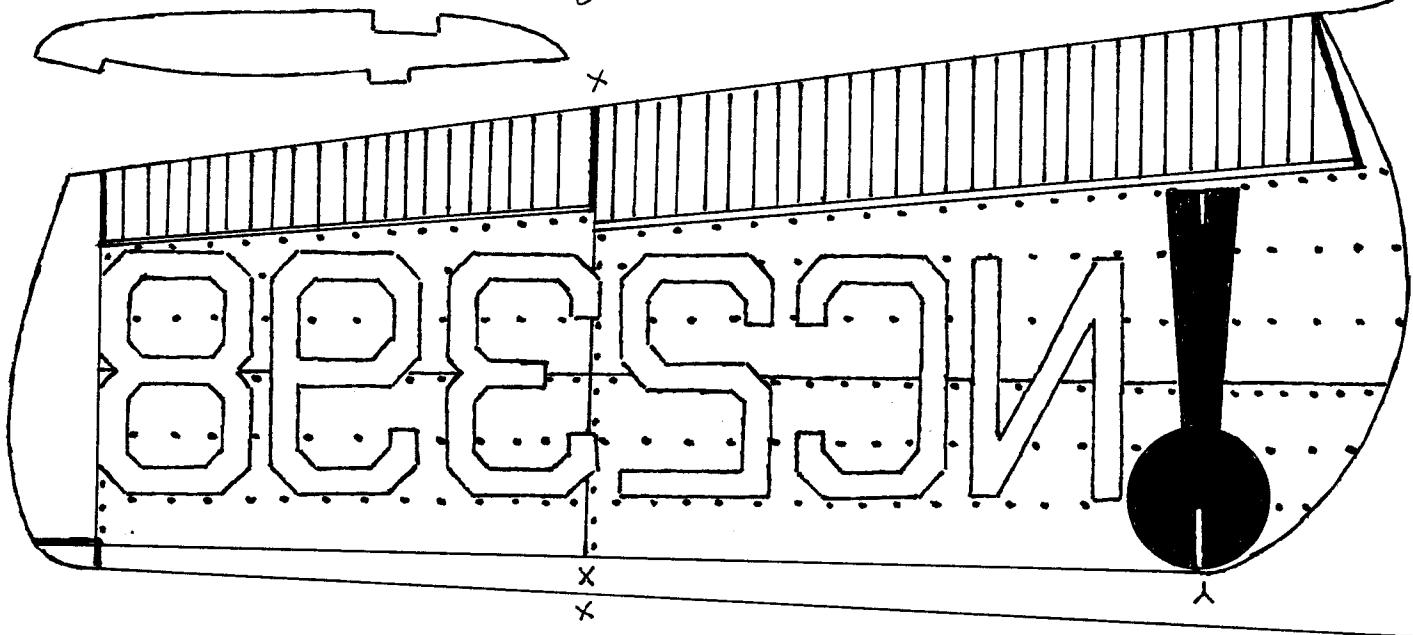
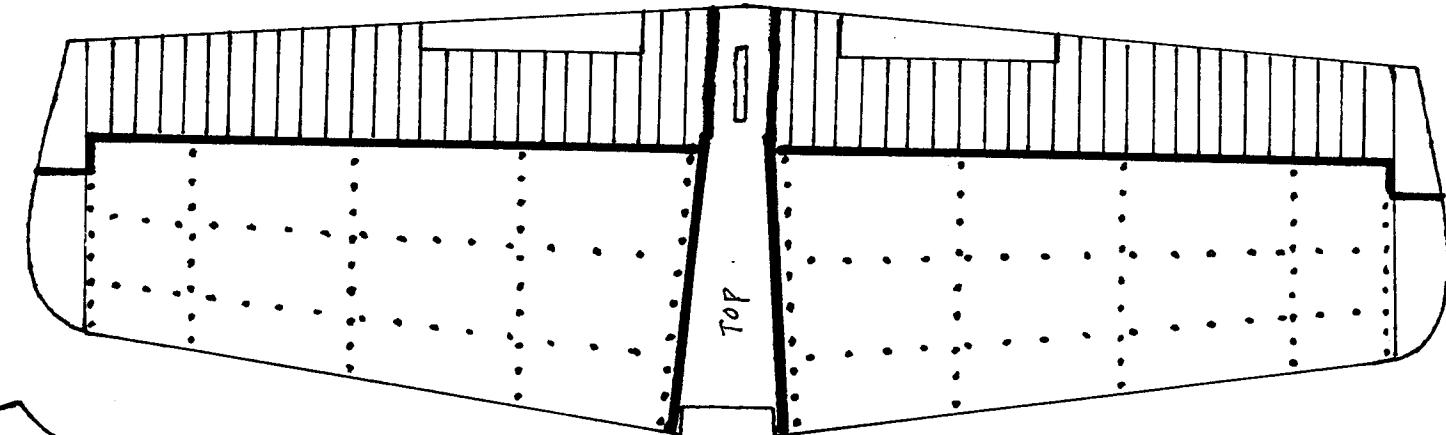


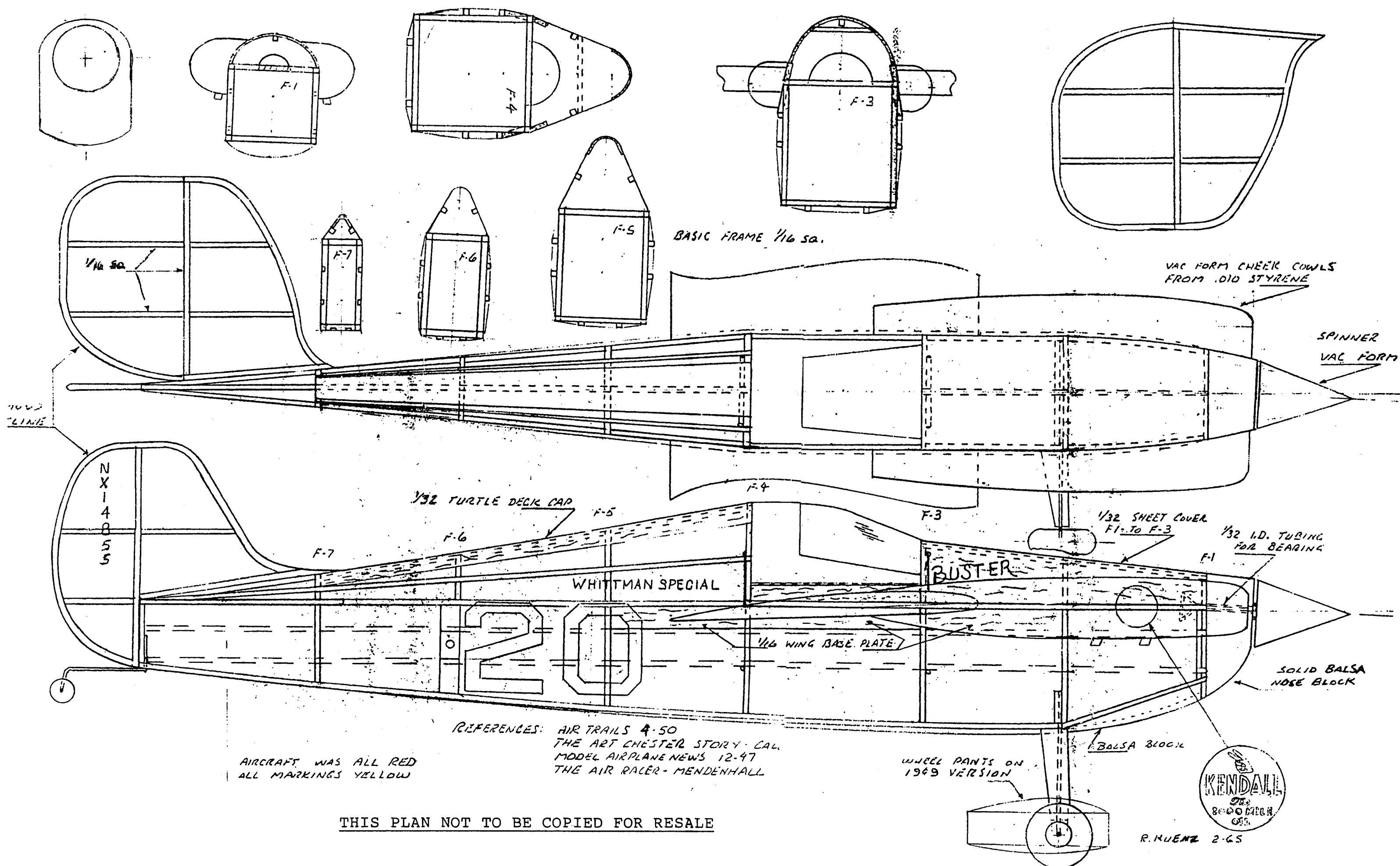
RIB PATTERN SHOWN ON FUSELAGE SIDE VIEW.

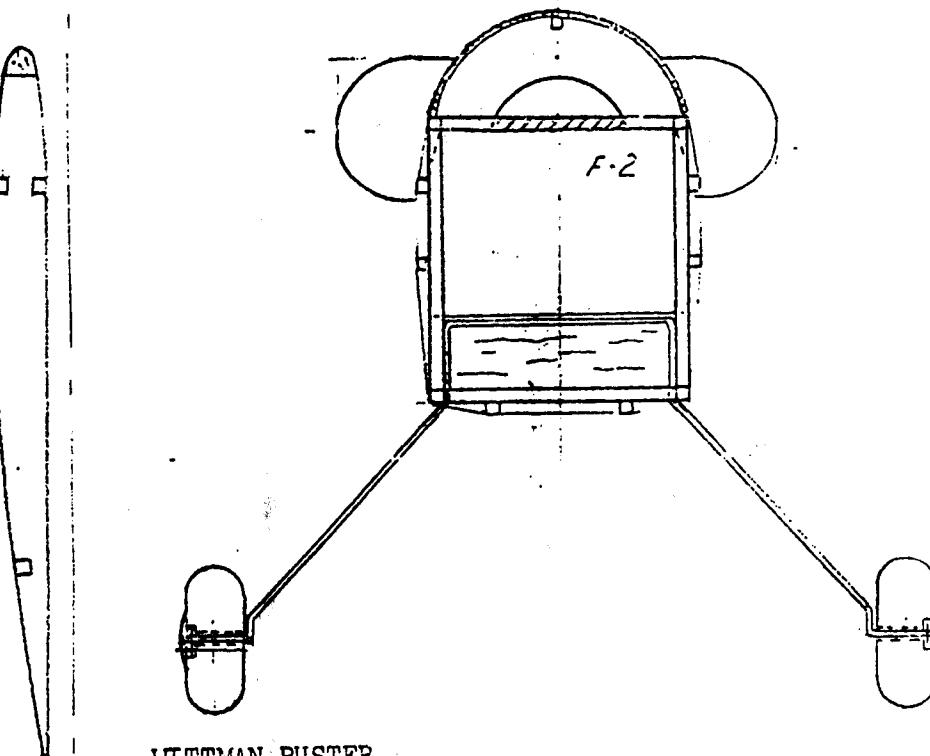
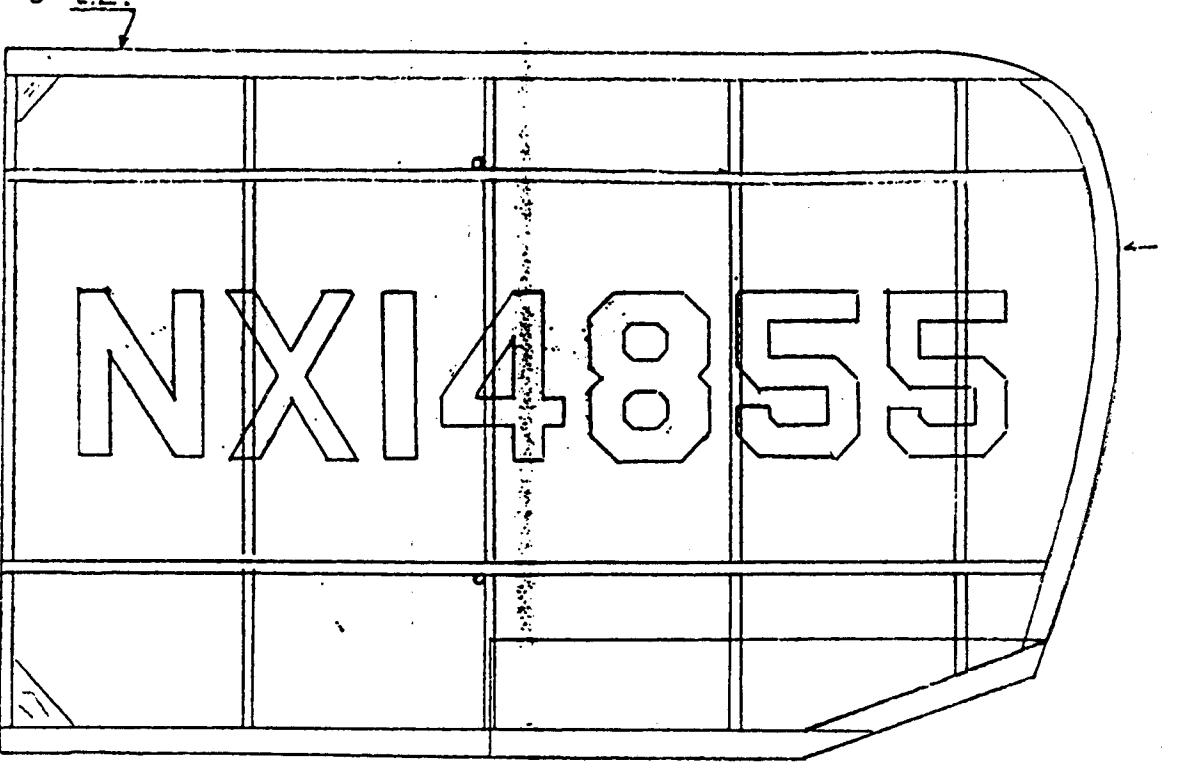
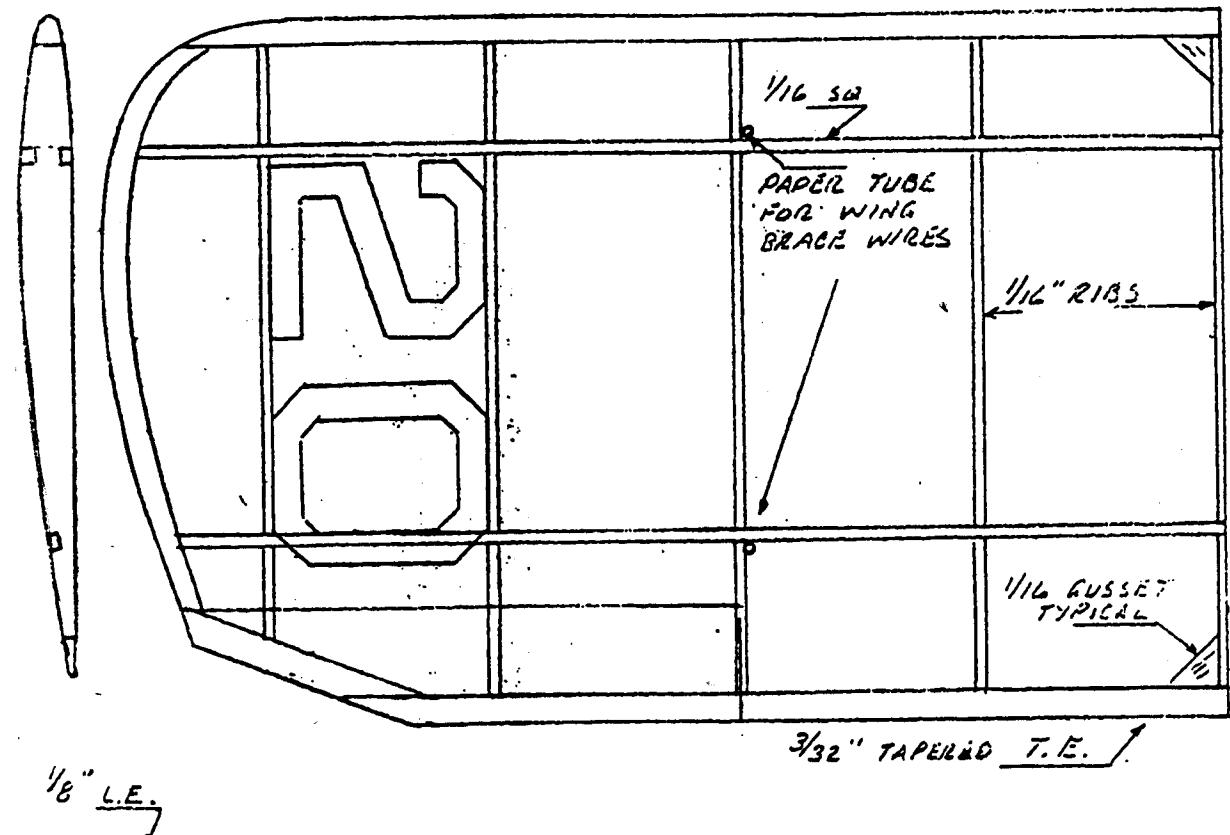
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Ryan/N.A. NAVION. Sheet 1 of 2







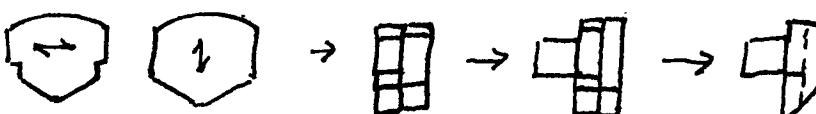
WITTMAN BUSTER

Here's a sweet li'l offering from the desk of Ralph Kuenz alias Von Rottensox.

NAVION CONSTRUCTION

by Jake Larson

The nose unit is weak, suggest 2 pieces of 1/8, x 1am.



Sand to fair in and use a Peck thrust button.

General scoop;

- A. Use a blender pen to color for coloring your parts. They smell a bit like old time cleaning fluid so take precautions. But they work well.
- B. When doing wings and elevator, DO THE TOPS FIRST!! Then cut piece out, position sheet with bottom detail and rub with blender pen. That way, goofs will be on the bottom and fairly well out of sight. Do same for rudder.
- C. You can get blender felt tips at office and art supply stores.
- D. These fly quite well on rubber if you use light wood. Mine are 17 grams flying weight with 4-6 lb. 1/32 sheet wood. They would also do very well on Co/2 or mini electric. My best time (in a 20 mph wind) was 71 sec. with a Piper J-3. I've gotten 60-68 sec. indoors on an L-5 Stinson Sentinel (18" span) and a Peanut Luscombe Sedan.

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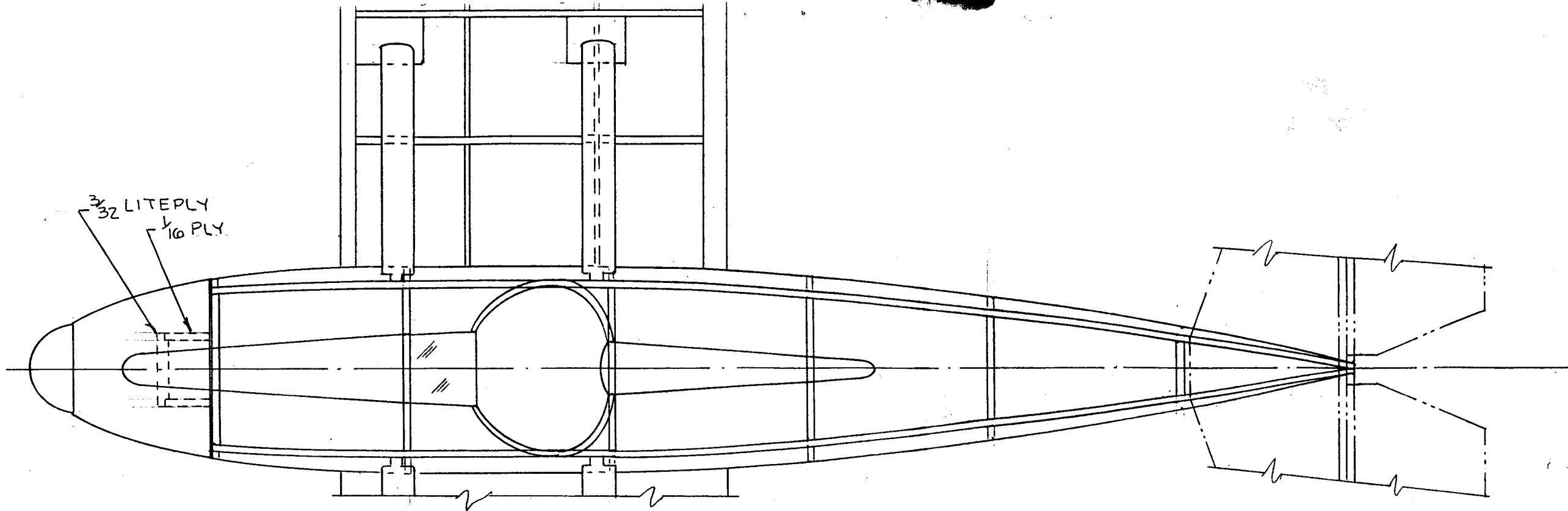
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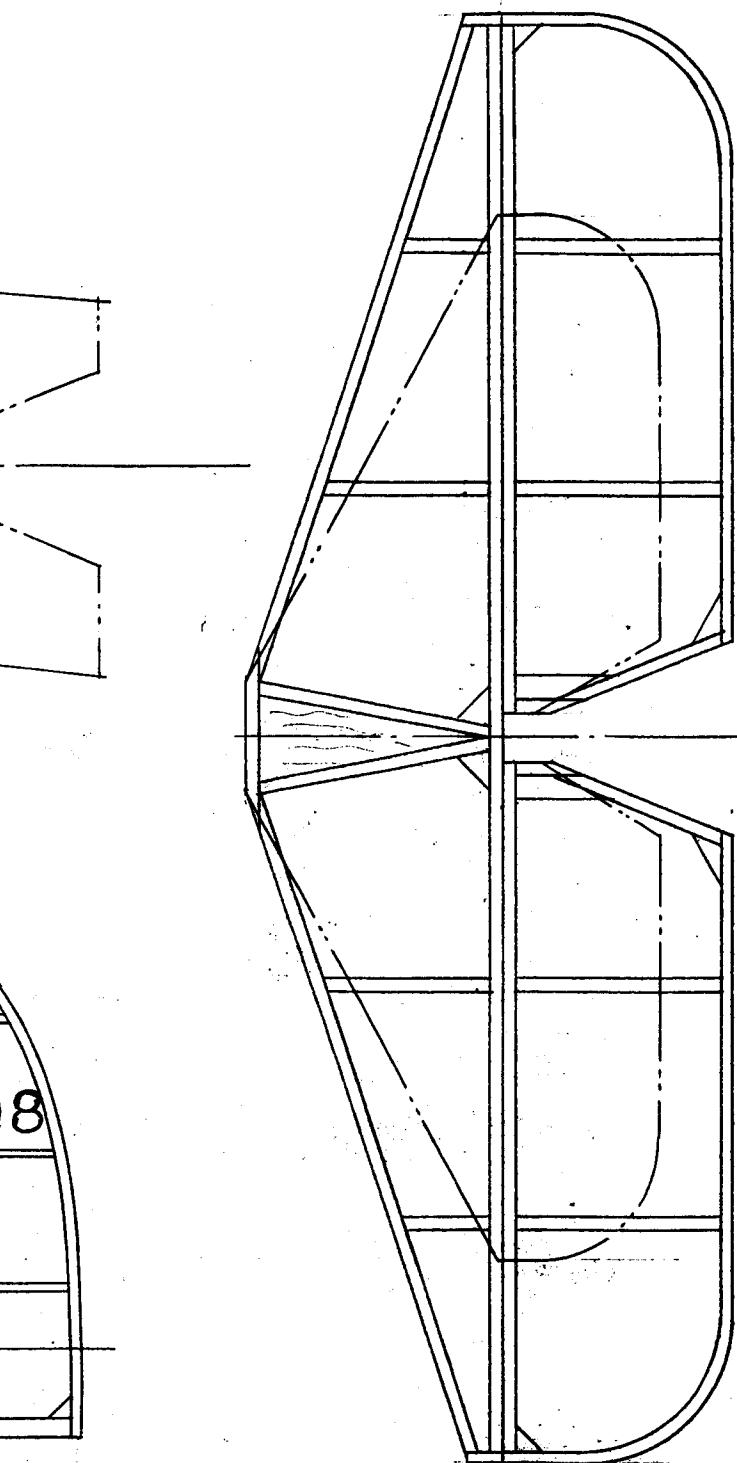
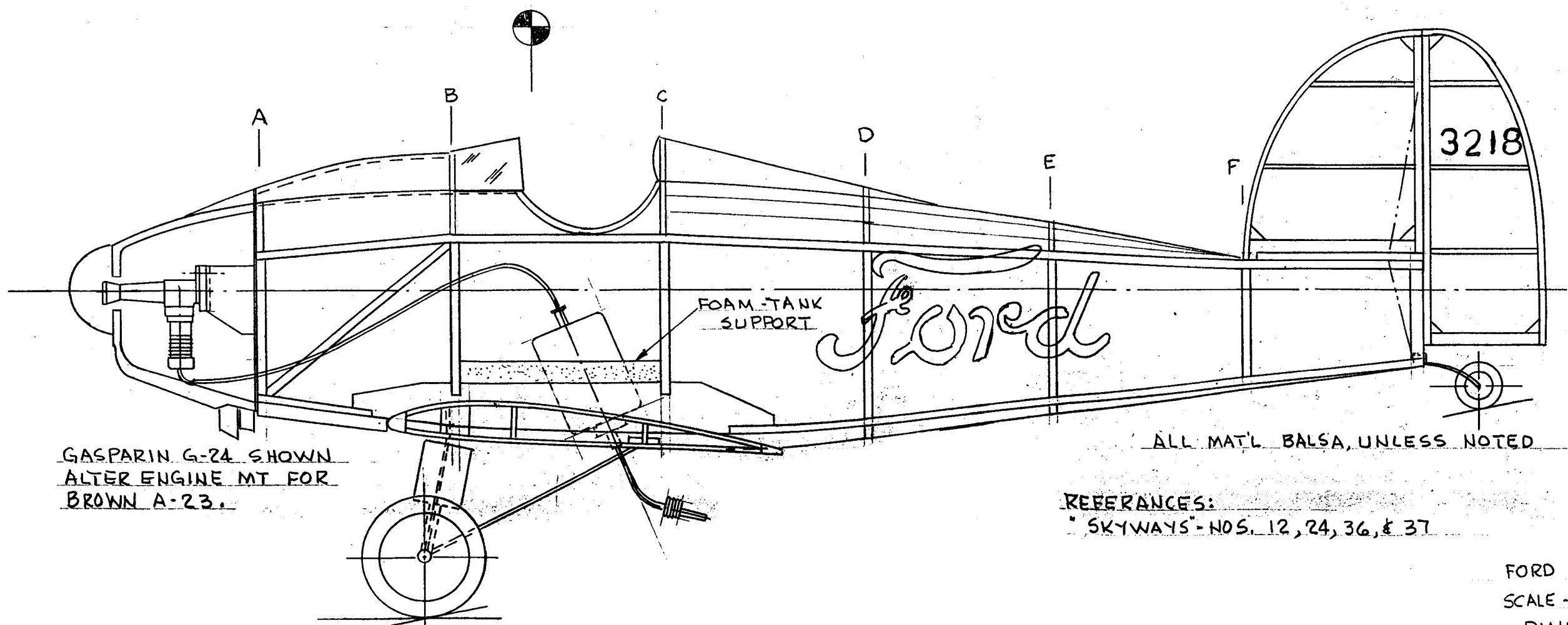
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THIS PLAN NOT TO BE COPIED FOR RESALE



FORD FLIVVER 3218 SHT.1 OF 2
SCALE - .7"=1'-0" WT. 32 GRAMS

DWN - JOHN LEWARS 8-20-95

THIS PLAN NOT TO BE COPIED FOR RESALE

18 N.T.

$$\frac{1}{8} \times \frac{3}{10}$$

32 + 4

$\frac{1}{32} \times \frac{5}{32}$

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

A diagram of a biplane from a side-on perspective. The aircraft has two wings: a top wing and a bottom wing. A large, bold label runs diagonally across the top of the wings, reading "TOP RT. WING & BOTTOM LFT. WING". Below this, another label reads "BOTTOM RT. WING ONLY". An arrow points from the text "TOP RT. WING & BOTTOM LFT. WING" towards the top wing.

- 1
32 SQ. BASSWOOD
STRINGERS

FORD FLIVVER 3218 SHT 2 OF 2

$\frac{1}{64}$ PLYWOOD
FIREWALL

B

8

□