Cloudbuster membership and subscription to the newsletter is $16.00 per year ($6.00 membership without subscription). All memberships expire on Dec. 31. Subscription membership includes all Newsletter issues for the year.

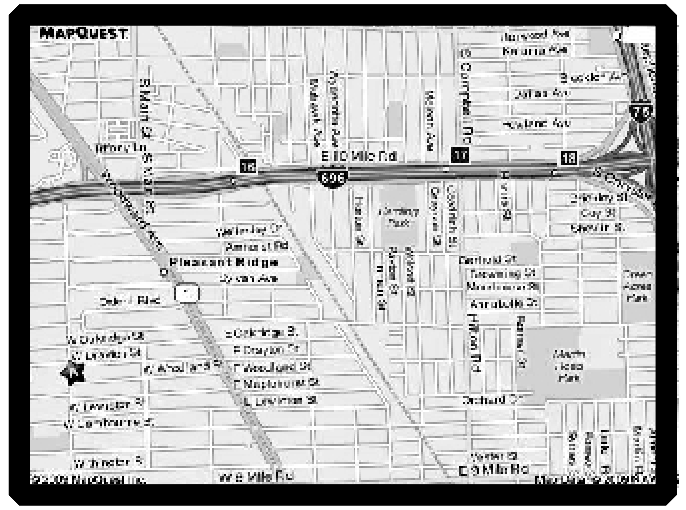
Send subscription money to:
John Jackson
Cloudbuster's MAC
5228 Lorin
Shelby Twp. 48316

Address all regular correspondence to:
Davis Gloff
76 Amherst
Pleasant Ridge, MI 48069

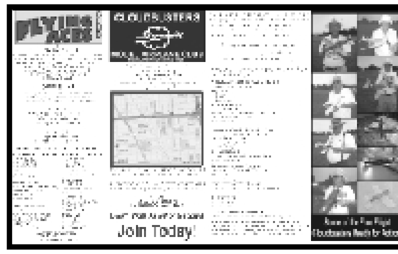
Club Officers
President: Mike Welshans, (mbwelshans@aol.com) 248-545-7601
V.P.: Winn Moore (winn_moore@yahoo.com) 248-830-6294
Secretary: Davis Gloff (davisgloff@hotmail.com) 248-399-3935
Treasurer: John Jackson, (johnjackson2475@gmail.com) 586-604-3257
Safety Officer: Bruce Thoms

Newsletter Editor: Chris A. Boehm, (merlin236@comcast.net) 810-348-8675
5586 Chatham Lane
Grand Blanc MI 48439

Club Website by Davis Gloff, (davis.gloff@gmail.com)
Cloudbustermac.tripod.com



The Cloudbusters meet at 8pm. on the third Tuesday of the month at
Drayton Ave. Presbyterian Church
2441 Pinecrest Avenue
Ferndale, MI 48220 The meeting room is #309
No meetings in June, July, or August.



Be sure to visit our web page to get the summer 2015 handout. If you do not have access to the web or a printer, contact a member who does and get your copies for handout today.

Cloudbusters Model Airplane Club
976 Pearson St
Ferndale MI 48220

Cloudbusters NEWSLETTER

Cloudbusters Model Airplane Club of Michigan, Inc.

Our 76th Year — Sept-Oct 2015

Presidents Notes

A few thoughts as we approach 2016 Cloudbuster meetings. First off, I have been Cloudbuster President for either 12 of the last 13 years or 13 of the last 14 years. I can't remember for sure as my mind is not like a steel trap any longer, unless it's one that's rusted shut. I also don't have time to research it, however, I do remember the one year I wasn't President I served the club as a different officer. During that time frame I have also been very heavily involved with Broome contests, Heritage School flying, coordinating the Thursday flying at Ultimate Soccer and have CD-ed or Co CD-ed several other Cloudbuster sanctioned events. During that period I also have been working with Chris Boehm on the newsletter and since we lost Dan Olah, keeping the electronic roster and getting the newsletter printed and mailed. My modeling involvement also included management positions within the FAC and NFFS/ AMA. All of this currently has me relatively burned out with modeling. That is the reason you have not often seen much of me at Broome or Heritage for the last few months. It is just not as much fun as it used to be.

I resigned my 3 management positions in the FAC last fall to alleviate some of the load. For the last 4 years I have run or co run the FAC Events at the NFFS/ AMA Nationals. If the NFFS can not find a suitable replacement for 2016, I will likely continue to do that for the sake of the FAC and to keep the FAC events alive and well at the NFFS/ AMA Nat's.

Sometimes we get very accustomed to something, set in our ways I guess, and do not make changes as we should. That in mind and wanting to be fair to the club, I want to let you know up front that this fall I will not be accepting a nomination for any club officer position. I also will not be the CD or Co CD for the Indoor Fling or the FAC Outdoor Champs for at least a couple of years. I need to get this hobby back to being fun and relaxing, not a chore that I don't look forward to.

What I will continue to do for Cloudbuster's is be the distributor of club information as I have an extensive email distribution list that I blind copy to. All the new officers will have to do is forward the information needing to be released and I will take care of it. In addition I will stay on as the contact for the State of Michigan for tax purposes and remain on the Cloudbuster Board of Directors. I will also continue to coordinate the Ultimate Soccer Thursday flying sessions and be the go between for the Indoor Fling dates etc., pretty much anything to do with Ultimate Soccer. I will continue to keep the clubs computerized roster and label system and coordinate the newsletter printing and mailing along with accepting mail-in dues and getting the money to the Treasurer in a timely manner. Elaine & I will continue to work closely with Chris and Crystal Boehm on the Cloudbuster's annual Picnic and Contest held in July as between us we have a system that works well.

Ladies and Gentlemen, the Cloudbuster's are in a stronger position both financially and membership wise than they have been in years. What the club now needs is for new and/ or our younger leaders to take over and make us even stronger and better.

Also nominations for the clubs perpetual trophies are due by the start of the November meeting. Think about deserving members for the Bill Adams (service to Model Aviation), George Lewis (service to the Cloudbuster's) and Dave Dulaitis (Contributions to Scale Modeling). These trophies cannot be won in consecutive years.

Current trophy holders who are ineligible are

Adams-George Bredehoft, Lewis-John Jackson & Dulaitis-Ted Allebone. Keep in mind it is okayto think out of the box here. It would be nice to see some new names on these awards. There are many deserving members who never get nominated.

October 30th is also the cut off for your Ron Sears "Top Gun" trophy results for 2015. Remember that you get accumulated points for contest results as follows. 1st place – 3, 2nd place 2 and 3rd place 1. You don't have to think you were the winner to turn in your scores. Turn them in so you can be recognized in the Newsletter and on the Website. Remember that this hobby is about having fun, not just winning.

Fair Skies and Tailwinds
Mike

Heritage Date

Bruce has been busting his butt trying to get the Heritage Dates finalized.

First Bruce was given three dates by the school that the school was closed or were holiday's. We could still have the closed dates however the cost per hour would have been substantially more. Then the hourly price changed, upwards of course.

That in mind we changed the day that was a holiday to April 1st. After much discussion between Bruce, Winn and myself Cloudbusters have chosen to eliminate two dates. The dates we will fly are below. If there are additional changes for snow dates etc. we will change on the fly.

This has been a major pain for Bruce so when you see him be sure to thank him for his efforts.

Heritage School Dates 7:30 - 9:30.

October 9th & 23rd	November 6th & 13th
December 4th & 18th	January 8th
February 5th	March 4th
April 1st	

Event #1 FAC Peanut Scale

9 Pilots #1 - FAC Peanut Scale		FAC Factored Best of 3 Flights					Reported Times				FacTR	
FullName	Plane Name	P#	Const	Mark	Work	Bonus	T1	T2	T3	FlyOT	Best	Score
Thomas Hallman	BLERIOT XXV 1	1	30	22	12.5	30	57				57.00	148.50
George Bredehoft	FAIREY BARRACUDA	1	25	22	12	10	102				76.00	148.00
Walter Farrell	FLOYD BEAN SPECIAL	2	25	32	9		120				82.50	148.50
Jack Tiskel	CURTISS R6	2	25	11	12	15	39	40			45.00	116.00
Chris Boehm	PFSID	1	30	20	11	10	43	38	41		43.00	114.00
Claude Powell	PT 19	1	30	22	11	10	39	42	41		42.00	113.00
Mike Welshans	WACO ZQC	1	25	20	11	15	35				35.00	106.00
Fred Gruning	AMLET MISTLER	1	23	15	12	10	25				25.00	85.00
Lee Campbell	NESMIT COUGAR	1	10	11	10		20	21			20.00	60.00
John Jackson Sr	MORANE SAULNIER TYPE H	1										
Paul Boyanowski	PELLET	1										
James Miller	TOH	1										
Mark Rzadca	MR SMOOTHIE	1										

Event #2 FAC Rubber Scale

9 Pilots #2 - FAC Rubber Scale		FAC Factored Best of 3 Flights					Reported Times				FacTR	
FullName	Plane Name	P#	Const	Mark	Work	Bonus	T1	T2	T3	FlyOT	Best	Score
Thomas Hallman	DOK	1	30	22	12	30	62				61.00	152.00
Walter Farrell	[illegible]	1	27	22	15	15	41	51	120		57.50	154.50
Jack Tiskel	NAVION	1	25	22	11.5	10	47	52	24		52.00	135.50
Mike Welshans	STARFLY	2	30	22	11.5	10	45	56			56.50	128.00
Roger Hays	MIG-3	1	25	22	12	10	75	13	37		66.00	125.00
Jack Moses	P-47	1	28	22	12	10	58	59	31		59.00	126.00
Fred Gruning	TRANSAVIA AIR TRUCK	1	30	22	12	30	31	21	40		31.00	123.00
Paul Boyanowski	ALBATROS D 1	1	30	22	12	15	44				44.00	121.00
James Rix	[illegible]	1	30	22	11	10	26				26.00	99.00

Event #3 FAC Jumbo Scale

8 Pilots #3 - FAC Jumbo Scale		FAC Factored Best of 3 Flights					Reported Times				FacTR	
FullName	Plane Name	P#	Const	Mark	Work	Bonus	T1	T2	T3	FlyOT	Best	Score
Thomas Hallman	MIG 3IS	1	25	15	12	35	102				75.25	155.25
Walter Farrell	BH 1	1	25	17	12	25	107				75.25	155.25
Pat Murray	BERIEV BE 12	1	27	15	11	35	49	52			52.00	140.00
Edward Allebone	CORBEN ACE	1	25	14	10		45	65	25		62.50	122.50
Jack Moses	HE 100D	1	25	15	10	10	38	42			42.00	102.00
Winn Moore	HE 100	1										
Tim Lavender	TA 152	1										
Ralph Kuenz	TAYLORCRAFT O 57	1										

Event #5 FAC Power Scale

1 Pilots #5 - FAC Power Scale		FAC Raw Times - Best of 3 Flights					Reported Times				Max: 120	
FullName	Plane Name	P#	Const	Mark	Work	Bonus	T1	T2	T3	FlyOT	Best	Score
Thomas Hallman	WATERMAN	1	30	20	10	20	120				120.00	[illegible]
Marilyn Kelley	F-84	1										

Event #11 Low-Wing Military Trainer

# Pilots #11 - Low-Wing Military Trainer		Total of 3 Flights				MaxTime: 120		
FullName	Plane Name	P#	T1	T2	T3	FO-1	FO-2	SCORE
Walter Farrell	TEXAN 2	1	112	60	104			286
Thomas Hallman	PT-25	1	92	105	21			218
John Jackson Sr	MILES M.4	1	47	105	56			208
Ronald Joye	PT-19	1	45	33	28			106
Claude Powell	PT-19	1	30	33	33			103
Jack Moses	T-33	1	36	22	42			102

Event #12 Golden Age Multi-wing

4-Pilots #12 - Golden Age Multi-wing		Total of 3 Flights				MaxTime: 120		
FullName	Plane Name	P#	T1	T2	T3	FO-1	FO-2	SCORE
Thomas Hallman	WACO YKC	1	120	81	88			289
Walter Farrell	WACO	1	120	97	63			280
Pat Murray	P-6E	1	44	60	46			150
Claude Powell	TIGER MOTH	1	39	29	52			120

Event #13 Golden Age Monoplane

11 Pilots #13 - Golden Age Monoplane		Total of 3 Flights				MaxTime: 120		
FullName	Plane Name	P#	T1	T2	T3	FO-1	FO-2	SCORE
Tim Lavender	STOUT	1	103	94	20			217
Thomas Hallman	NB 3	1	90	106	65			260
Jack Moses	FOKKER LIMOUSINE	1	91	61	125			277
Walter Farrell	SPARROWHAWK	2	115	67	81			263
Claude Powell	TAYLOR CUB	1	84	70	110			253
Paul Boyanowski	PIPER J-3	1	64	120	43			227
Martyn Richey	STINSON SR-8	1	32	59	85			170
Pat Murray	SR-7	1	17	54	53			125
Fred Gruning	FOKKER SUPER UNIV	1	33	31	41			105
Edward Allebone	CORBEN ACE	1	90					90
Mike Welshans	STOUT	1	72					72

Event #21 Old Time Rubber Stick

7 Pilots #21 - Old Time Rubber Stick		Total of 3 Flights				MaxTime: 120		
FullName	Plane Name	P#	T1	T2	T3	FO-1	FO-2	SCORE
Pat Murray	GOLLYWOK	1	120	105	120			345
Edward Allebone	WANDERER	1	120	116	101			336
Jack Tiskel	1930 CORDA	1	120	120	63			303
Roy Steward	SUNSPORT	1	57	45	65			167
George Bredehoft	[illegible]	1	45	35	46			126
Mark Rzadca	GOLLYWOK	1	55					55
James Carszewski	GOLLYWOK	1	54					54

Event #22 Old Time Rubber Fuselage

14 Pilots #22 - Old Time Rubber Fuselage		Total of 3 Flights				MaxTime: 120		
Full Name	Plane Name	PA	T1	T2	T3	FO-1	FO-2	SCORE
Gerard Kondrat	SCIENTIFIC FURY	1	120	120	120	1		360
Edward Allebone	1938 CANADIAN WAKE	1	120	120	120			360
James Gorzewski	WREN	1	130	120	80			[illegible]
George Bredehoft	PACIFIC ACE JR	1	74	120	120			314
Mark Rzadca	FA MOTH	1	[illegible]	120	103			[illegible]
Stewart Cummins	MISS CANADA	1	96	120	88			304
George White	KING HARRY	1	120	92	84			296
Jack Tisinai	RAINBOW	1	47	105	120			272
Roy Stewart	CLIMBER	1	57	80	72			[illegible]
Lee Campbell	JABBERWOCK	1	87	62	68			217
Harrison Knapp	FA MOTH	1	54	80	57			181
Donald Decook	KING HARRY	1	120					120
Ross Mayo	FA MOTH	1	54	64				118
Dan Driscoll	JR MISS	1	89					89

Event #32 Dime Scale

13 Pilots #32 - Dime Scale		Total of 3 Flights					MaxTime: 120		
Full Name	Plane Name	PA	BP	T1	T2	T3	FO-1	FO-2	SCORE
Thomas Hallman	HELLDIVER	2	10	77	79	117			287
Walter Farrell	GADFLY	1	11	86	76	46			[illegible]
Harrison Knapp	GADFLY	1	11	110	72	41			234
Donald Decook	POTEZ 54	1	1	44	112	57			217
Mark Rzadca	STAGGERWING	1	15	24	112	60			211
Roy Stewart	C-34	1	1	70	74	43			188
Mike Welshans	AIRMASTER	1	1	45	45	65			188
John Houck Sr	CORBAN	2	1	67	67	52			183
Ross Mayo	CHAMBERMAID	1		53	67	45			165
Pres Bruning	PT-19	1	11	46	45	39			141
Claude Powell	ME 109	1	10	40	41	28			119
George White	KINGFISHER	1	11	34	33	27			108
Pat Murray	STAGGERWING	1	10	47					[illegible]

Event #35 Embryo Endurance

21 Pilots #35 - Embryo Endurance		Total of 3 Flights					MaxTime: 120		
Full Name	Plane Name	PA	BP	T1	T2	T3	FO-1	FO-2	SCORE
Edward Allebone	DURHAM MYSTERY	1	9	92	120	104			325
Dan Driscoll	NED II	1	9	120	110	75			[illegible]
Gerard Kondrat	[illegible]ELSHMAN	1	6	105	85	114			317
Walter Farrell	DEBUT	1	9	120	75	112			316
Charlie Sauter	DEBUT	1	9	86	112	80			287
John Houck Sr	SWALLOW	1	9	85	120	54			271
Jack Tisinai	JABBERWHAT?	1	9	59	81	117			266
George Bredehoft	DURHAM MYSTERY	1	9	81	87	74			251
Roy Courtney	DEBUT	1	9	[illegible]	82	72			235
Jack Moses	BORN LOSER	2	9	53	120	49			231
James Bair	SKYBIRD	1	9	64	75	81			229
Harrison Knapp	DEBUT	1	9	84	63	77			223
Mark Rzadca	PUMA	1	9	70	64	77			220
[illegible]	[illegible]	1	9	[illegible]	80	[illegible]			219
Pres Bruning	FLYING FISH	1		46	53	120			219
JACK BREDEHOLF	BAD AXE	1	9	81	120				210
Ray Rakow	BIG CAT	1	9	76	120				205
Chris Boehm	YELLOW CAB	1	8	68	61	65			202
Charles Hickson	BIG CAT	1	8	50	68	62			185
Ronald Joyal	BIG CAT	1	9	82	53	33			157
Raphael Arias	TOMAHAWK	1	8	39	48				95
Donald Decook	BIFURCATED DURHARD MYSTAY	1							
George White	GONZO	1							

Event #41 Thomson Race

6 Pilots #41 - Thomson Race		RAW TIMES		
Pilot Name	Plane Name	T1	T2	T3
Thomas Hallman	LOOSE	62	63	280
Walter Farrell	MULLIGAN	58	39	183
Pat Murray	MULLIGAN	62	107	107
Paul Boyanowski	LAIRD	57	11	103
Charlie Sauter	MARCOUX BROMBERG	53	9	
Ron Joyal	MULLIGAN	4		

Event #36 Jet Catapault

6 Pilots #36 - Jet Catapault		Best 3 of 6 Flights				Raw Times						
Full Name	Plane Name	PA	[illegible]	[illegible]	[illegible]	T1	T2	T3	T4	T5	T6	SUM
Mike Moore	[illegible]	1	7	5	3	14	10	17	17	24	5	71
Walter Farrell	[illegible]	1	5	5	2	4	13	47	[illegible]	1		21
Mark Rzadca	[illegible]	1	6	6	2	15	10	15	23	17	10	70
Jack Coyle	SKYKNIGHT	1	5.5	5	2	5	5	10	9	13	24	53.5
Donald Decook	METEOR	2	7.6	7.6	2	13	9	16	14	6	3	50
Ray Rakow	GRUMMAN [illegible]	1										
James Bair	CF-100	1										
Harrison Knapp	F4 PHANTOM 2	1										

Event #43 Goodyear / Formula Race

9-Pilots #43 - Goodyear / Formula Race		RAW TIMES		
Pilot Name	Plane Name	T1	T2	T3
Walter Farrell	MIRAGE	62	50	58
Martyn Richey	SWEE PEA	45	39	47
Jack Tisinai	HOT CANARY	34	31	12
George Bredehoft	FALCON SPECIAL	55	42	11
Harrison Knapp	BUSTER	13	19	
Paul Boyanowski	PELLET	18	14	
Thomas Hallman	SNOKE SWIFTY	60	10	
Pat Murray	MIDGET MUSTANG	11		
Jack Moses	MIRAGE	8		

Event #42 Greve Race

11-Pilots #42 - Greve Race		RAW TIMES		
Pilot Name	Plane Name	T1	T2	T3
George White	MR SMOOTHIE	173	93	115
Dennis Ruhland	FOLKERTS SK-2	57	74	93
Jack Tisinai	ISREAL RED HEAD	185	146	61
Pat Murray	SMOOTHIE	171	22	
Charlie Sauter	KR-4	104	18	
Paul Boyanowski	FOLKERTS SK-4	84	16	
Thomas Hallman	HAINES	330		
MARIA Kondrat	CHAMBERMAID	202		
Charles Hickson	CHAMBERMAID	44		
Walter Farrell	MR SMMTHIE	18		
George Bredehoft	KR 2	16		

Event #33 No-Cal Profile

9 Pilots #33 - No Cal Profile		Total of 3 Flights				MaxTime: 9999		
Full Name	Plane Name	PA	T1	T2	T3	FO-1	FO-2	SCORE
Walter Farrell	CARDINAL	2	504					504
Mark Rzadca	SMOOTHIE	1	108	178	171			456
George Bredehoft	CESSNA CENTURION	1	252	81	123			[illegible]
Thomas Hallman	KOOL-OVEN	1	293	25	23			341
JACK BREDEHOLT	CESSNA CENTURION	1	89	119	123			340
Charles Hickson	CHAMBERMAID	1	83	99	144			326
Ray Rakow	CARDINAL	1	120	144	58			322
Harrison Knapp	CHAMBERMAID	1	95	95	106			300
Tim Lavender	CHAMBERMAID	1	73	54	54			176

Event #45 WWII Combat

14 Pilots #45 - WWII Combat		RAW TIMES		
Pilot Name	Plane Name	T1	T2	T3
Pat Murray	AVENGER	76	94	233
Jack Tisinai	F8F	71	105	78
John Houck Sr	P-51	63	92	62
Martyn Richey	WILDCAT	75	159	61
Jack Moses	P-47	56	152	20
Ross Mayo	MIG-3	43	51	
George Bredehoft	FAIREY BARACUDA	33	36	
Ronald Joyal	P-51	44	28	
Gerard Kondrat	SAI 207	55	27	
MARIA Kondrat	SAI 707	33	23	
Walter Farrell	HEINKEL 100	31		
Claude Powell	FW-190	27		
George White	STORMOVIK	25		
Charlie Sauter	P 51 B	23		
Paul Boyanowski	P-39	0		

Event #44 WWI Combat

10 Pilots #44 - WWI Combat		RAW TIMES		
Pilot Name	Plane Name	T1	T2	T3
Jack Tisinai	ALB D-7	120	71	62
Thomas Hallman	FOK D-7	151	81	47
Walter Farrell	MARTINSYDE S1	78	74	40
Paul Boyanowski	ALB D-1	98	35	
John Houck Sr	SE-5	11	14	
Pat Murray	FOK D7	600		
Tim Lavender	FOK D7	15		
MARIA Kondrat	FOK D7	11		
Jack Coyle	FOK D-7	9		
Claude Powell	BRISTOL SCOUT	7		

Event #53 1/2 Wakefield

1-Pilots #53 - 1/2 Wakefield		Total of 3 Flights				MaxTime: 120		
Full Name	Plane Name	PA	T1	T2	T3	FO-1	FO-2	SCORE
Jack Tisinai	TULSA ROCKET	1	96	92	89			277

Event #98 AMA P-30

6 Pilots #98 - AMA P-30		Total of 3 Flights				MaxTime: 120		
Full Name	Plane Name	PA	T1	T2	T3	FO-1	FO-2	SCORE
Dan Driscoll	DC-3	1	120	105	117			342
Edward Allebone	CENTAUR	1	120	120	81			321
Bill Bigelow	VM MK2	1	92	70	58			220
Charles Hickson	CENTAUR	1	57					57
Chris Boehm	ROGER DODGER	1	37					37
SECOND ENTRIES	WITH LOWER TIMES							

LOTS OF WIND,
SOME RAIN
LOUSY WEATHER.
GREAT CONTEST!!!
THANK YOU
EVERYONE
THAT HELPED
AND
FLEW!!

Outdoor Champs 2015

	GRAND CHAMP		
REG#	NAME	PLACE	POINTS
21	Walter Farrell	1	405
20	Thomas Hallman	2	356
36	Jack Tisinai	3	237
43	Edward Allebone	4	219
1	Pat Murray	5	169

	SCALE GRAND CHAMP		
REG#	NAME	PLACE	POINTS
20	Thomas Hallman	1	318
21	Walter Farrell	2	302
36	Jack Tisinai	3	211
1	Pat Murray	4	122
18	John Houck Sr	5	70

	NON SCALE GRAND CHAMP		
REG#	NAME	PLACE	POINTS
43	Edward Allebone	1	209
13	Gerard Kondrat	2	133
6	Dan Driscoll	3	109
21	Walter Farrell	4	103
15	George Bredehoft	5	62

A COMPETITION MODEL IN MINIATURE

By PETER GARROD CHINN

This month our contributor has a break from his usual article on "Scale Design," and describes the construction of a small type of high-wing cabin monoplane. In our next issue we shall publish another article by Mr. Chinn in his series on Flying Scale Model Designs.

THE original "Wasp" was built about eighteen months ago; it was designed with a view toward obtaining maximum performance from a small model, and was therefore built on the lines of a large competition model. It is, in fact, more or less, a half-scale model of a typical light-weight contest machine.

The model presented here is an improvement on the original, and, although so far there has not been an opportunity of flying it under really good conditions, its performance should also be better. Non-thermal flying (which does not reflect the true capabilities of a model, anyway) showed the "Wasp" capable of clocking 90 to 100 seconds H.L. consistently on less than three-quarter turns, using six strands of $\frac{1}{8}$ in. by 1-30 in. rubber. On eight strands the model has a real rocket-like climb, and will shoot up in a tight spiral, but becomes rather sensitive to adjustment. The beginner would be wise in using four strands until he has become used to delicate trimming. Regular durations of more than a minute are easily obtained on this amount of rubber.

The "Wasp" incorporates the "lifting-tail" principal, now adopted almost universally by designers of competition models, but seldom used on small jobs. No difficulty in adjusting was experienced through this arrangement. Construction is, of course, almost entirely of balsa, and is quite straightforward. However, it is as well to remember that in building a model of this size the margin of error must be very small. A slight mistake, which would have little effect on a big machine, will be magnified many times in a model such as this.

Now, will all those who, having read so far and studied the plans, think this model worthy of their labours, please step forward—dear me—only one—a beginner, too—oh well, here goes :—

Fuselage and Undercart.

First cover the drawing with waxed paper (to prevent the wood from sticking to it, Johnny, and you can get waxed paper from your corn-flakes packet). Now bind the top pair of longerons together with fine thread and gently bend them to shape whilst holding in a jet of steam. Do the same with the bottom pair, and then when quite dry (making sure that they are still in shape) take off the binding, and attach one top and one bottom longeron to the plan—pin each side of the strips, of course, not through the wood. By the way, do not think that because the longeron will bend to shape dry without cracking it is not necessary to steam them—it is! You will find your fuselage sides warped when removed from the board, unless the longerons are shaped first. Don't try soaking the wood and pinning it to the plan either—that, too, won't work!

Next, cement in the side members. Upright "J" is of $\frac{1}{16}$ in. medium balsa, and should be pierced to take the $\frac{1}{8}$ in. by $\frac{3}{32}$ in. bamboo rubber-peg. Build the second side on top of the first to ensure accuracy, then remove them from the plans and join with spacers at stations E, F and G.

Making sure that everything is square, the rest of the spacers may be cemented in. Members at "K" should be accurately cut to leave an opening $\frac{3}{16}$ in. wide at the rear end of the fuselage. Note that there is an extra spacer at "B" to serve as a reinforcement for the undercart tubes.

Good quality Tonkin bamboo should be used for the undercarriage struts. They are $5\frac{1}{4}$ in. long. For a distance of $1\frac{1}{2}$ in. from the top each strut is $\frac{3}{32}$ in. by $\frac{1}{16}$ in. thick, then tapers to $\frac{1}{16}$ in. by $\frac{1}{16}$ in. at the bottom. One-inch diameter balsa or paulownia streamlined wheels run on 22 s.w.g. steel wire axles, which are bound in the usual way to the end of each strut. A piece of glass may be used to taper the bamboo and to round off the edges to a streamlined section. The sockets into which the legs plug are made from gummed paper rolled several thicknesses around the strut. The top of the strut should be waxed or soaped to prevent the paper from sticking, whilst rolling the tube. These two tubes (or they can be made in one, and bent in the centre) are then attached to the fuselage framework at "B"—and don't be stingy on the cement! The ends of the sockets may then be cut off flush with the side of the fuselage.

Wing.

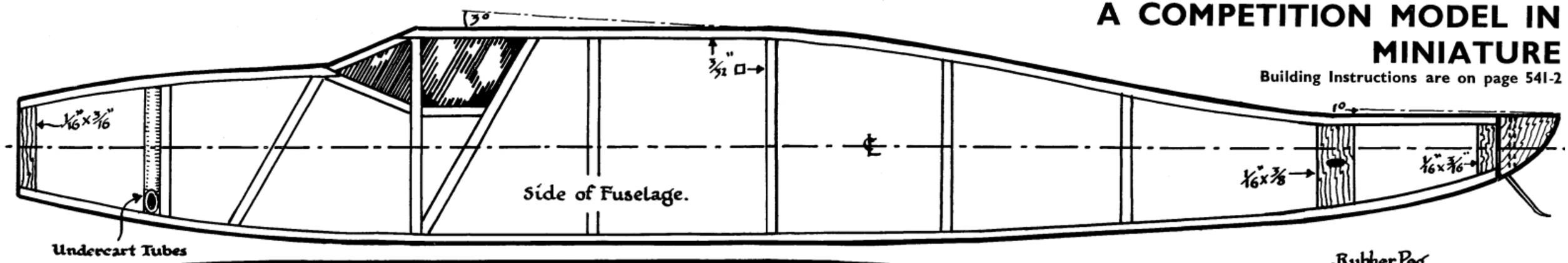
The wing has an R.A.F. 32 section, and is just over 58 square inches in area. Closely spaced ribs enable the wing to keep a fairly constant section all along its span. Each panel (minus the centre-section) is built separately. The leading-edge is of $\frac{3}{32}$ in. square medium balsa, fitted into the ribs edgewise. The trailing-edge is of $\frac{1}{16}$ in. by $\frac{3}{16}$ in. medium balsa. Nine ribs are cut from $\frac{1}{32}$ in. medium sheet for each panel; they may be perforated for lightness. The centre-spar is of $\frac{1}{16}$ in. by $\frac{3}{16}$ in. medium-hard balsa, and is set about $\frac{1}{16}$ in. up into the ribs, so as to ensure a smooth covering job.

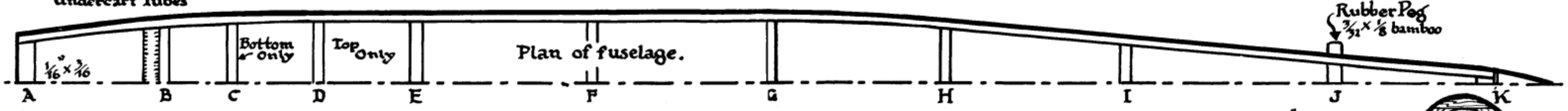
The wing-tips on the original model were double-elliptical, but since no aerodynamic advantage is to be afforded by this shape on a small model, they have been replaced by the more easily made semi-circular tips. The tips may be of either reed-cane or bamboo. If bamboo is used it need not be more than 1-20 in. thick, but reed should be at least $\frac{1}{16}$ in. in diameter. The beginner who is not used to bending bamboo by dry heat will probably do better with reed-cane. Reed-cane should first be straightened out (it is usually sold in coils) by soaking in water and hanging it up, with one end weighted, to dry. When quite straight, it should be soaked again, curved to the shape of the tip and pinned down. When dry, it may be cemented to the wing structure.

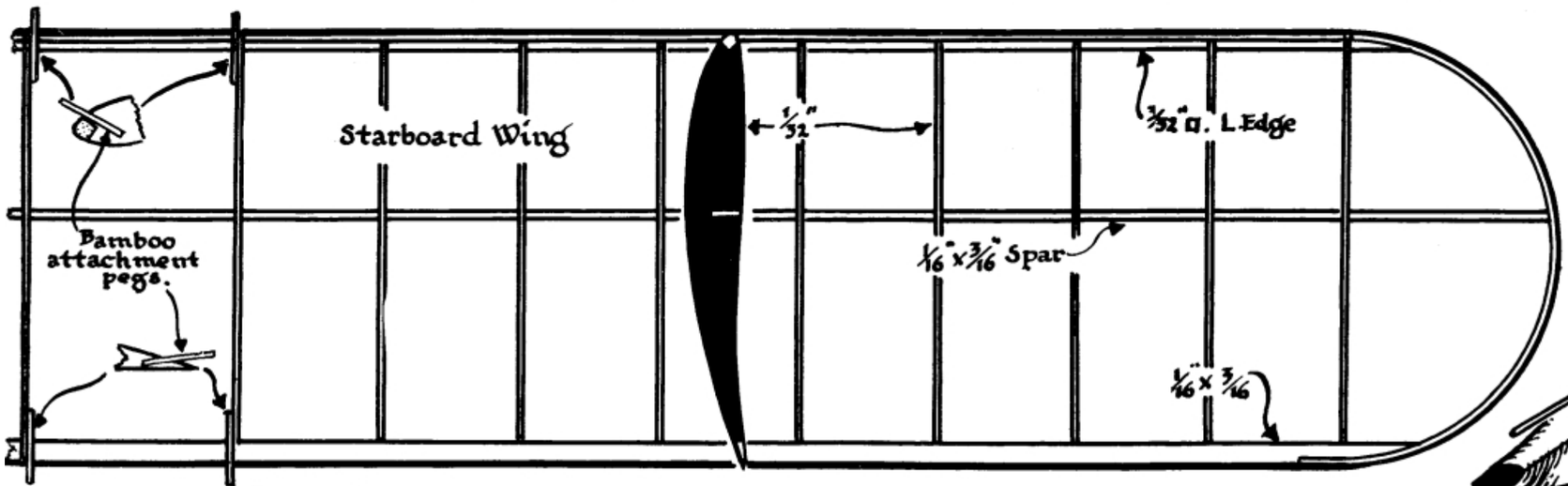
The two wing-panels, now completed, may be joined by the three centre-section pieces. The tips should be propped up to $1\frac{1}{2}$ in. above the horizontal to provide the necessary dihedral angle whilst the wings are joined. Four wing attachment pegs of 1-20 in. square bamboo are fitted in each corner of the centre-section.

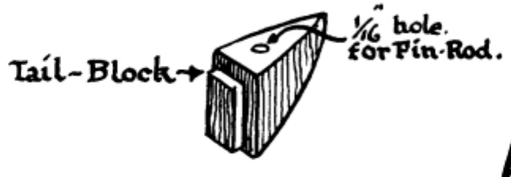
A COMPETITION MODEL IN MINIATURE

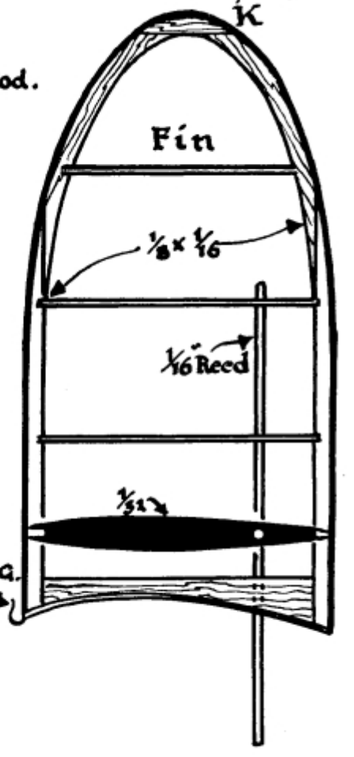
Building Instructions are on page 541-2

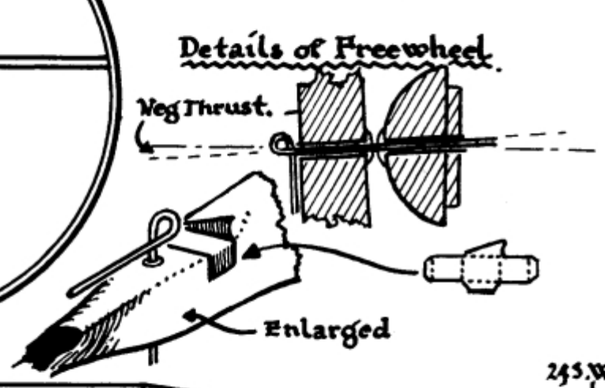


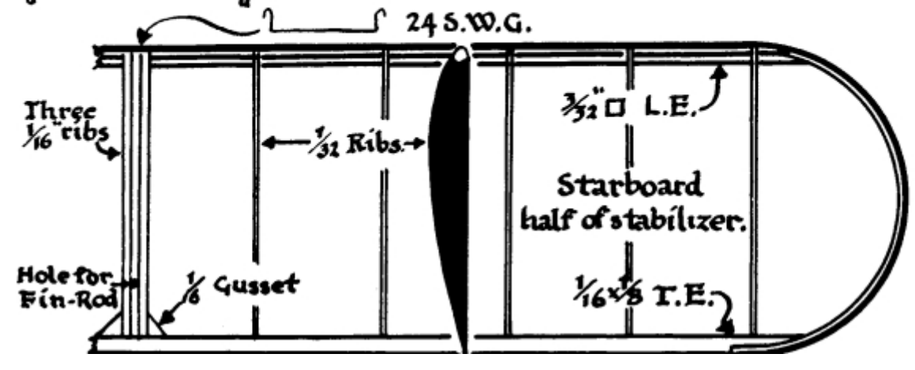


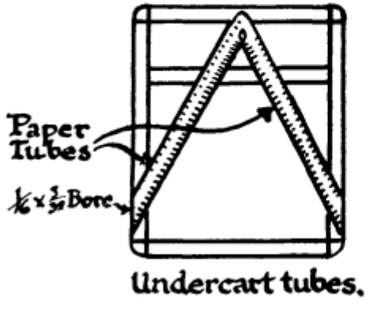


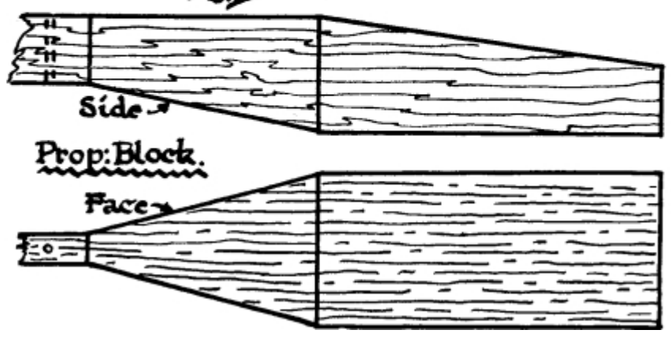




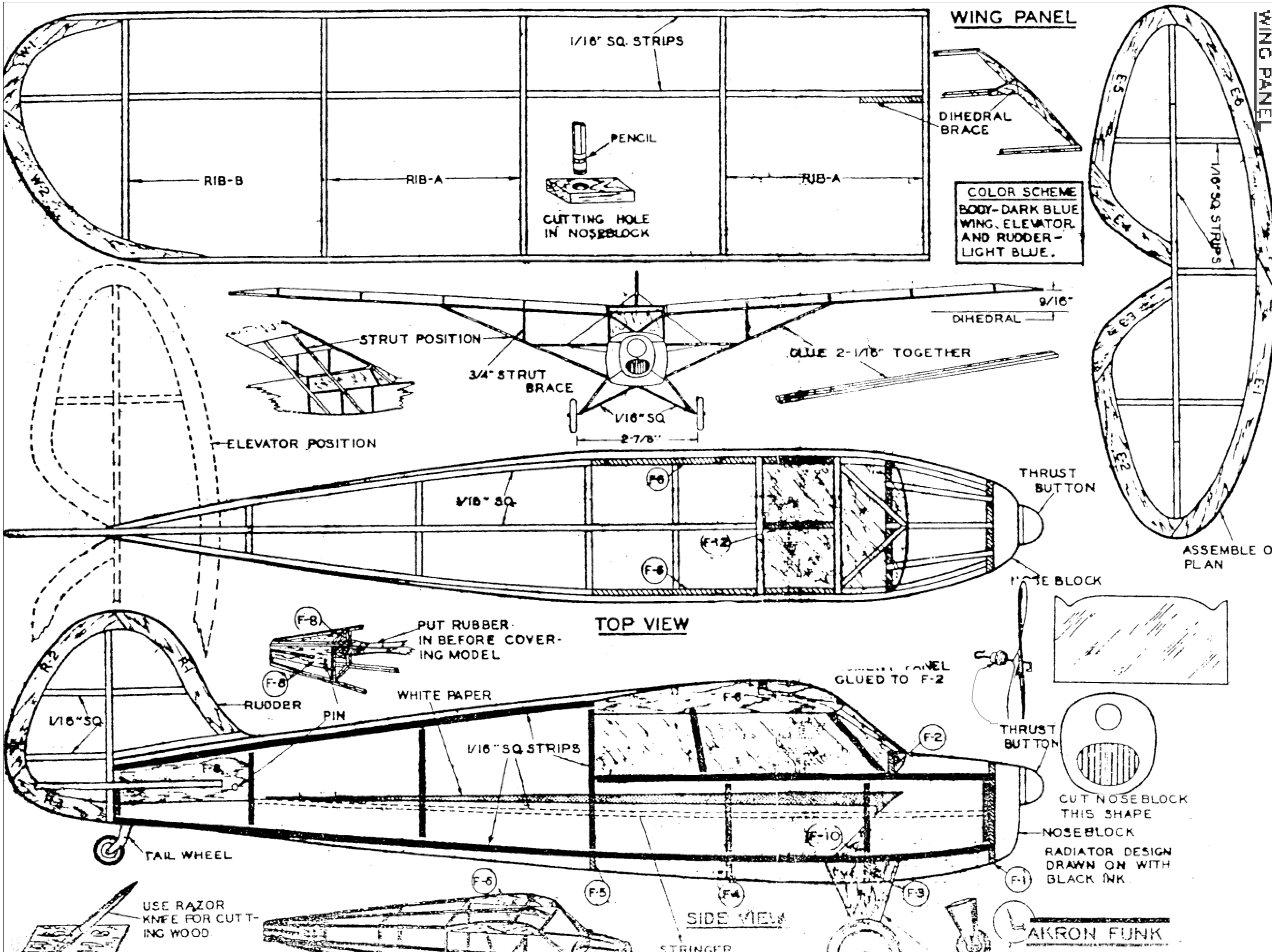


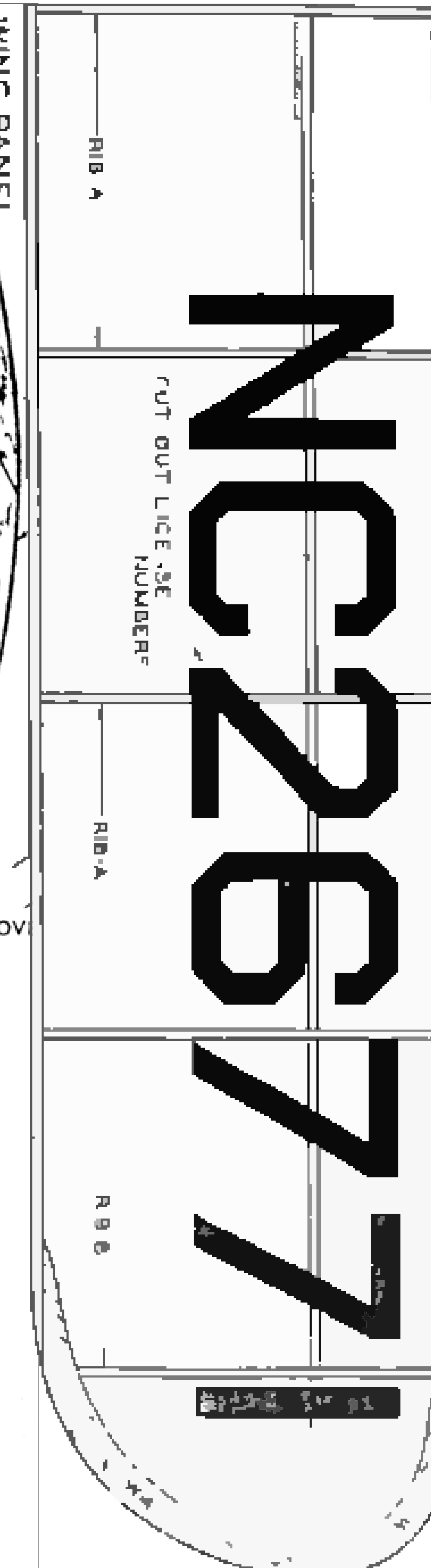


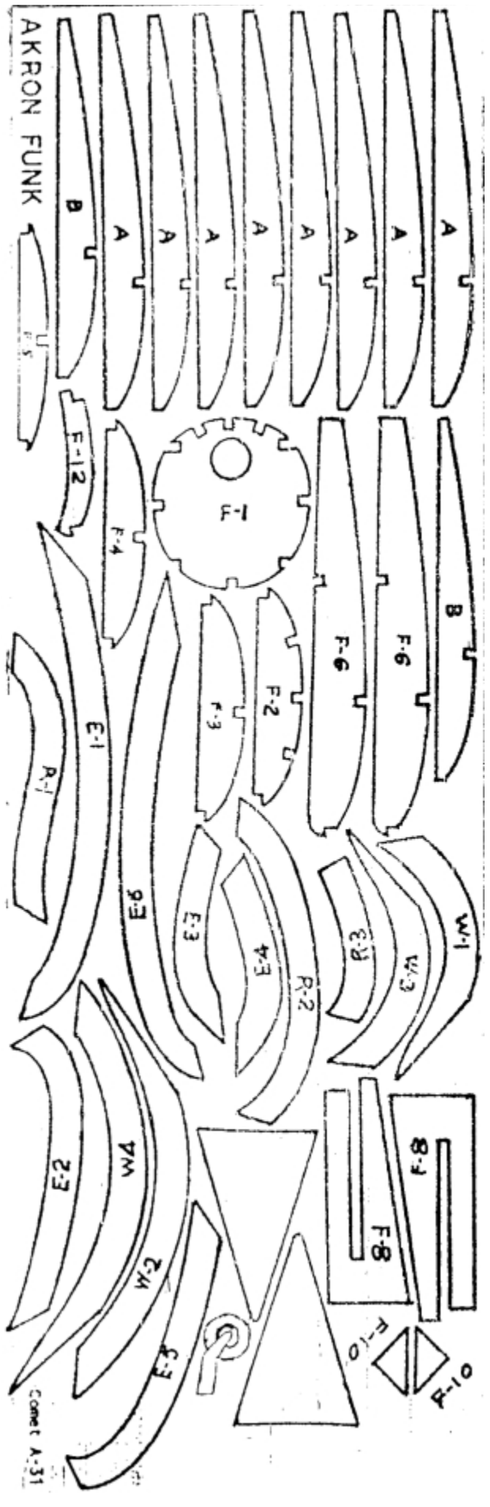




"WASP III"
Span 20" — Wing Area 58·07 sq"
Dihedral 1½"
Des by P.G. Chinn.


WING PANEL
1/16" SQ. STRIPS
DIHEDRAL BRACE
PENCIL
RIB-B
RIB-A
RIB-A
CUTTING HOLE IN NOSEBLOCK
COLOR SCHEME
BODY-DARK BLUE
WING, ELEVATOR, AND RUDDER-LIGHT BLUE.
W-1
W-2
E-1
E-2
E-3
E-4
E-5
E-6
1/16" SQ. STRIPS
9/16"
DIHEDRAL
STRUT POSITION
3/4" STRUT BRACE
GLUE 2-1/16" TOGETHER
1/16" SQ
2-7/8"
ELEVATOR POSITION
1/16" SQ.
F-6
F-12
F-6
THRUST BUTTON
ASSEMBLE OV
PLAN
TOP VIEW
F-8
PUT RUBBER IN BEFORE COVERING MODEL
F-8
GLUED TO F-2
R-1
R-2
R-3
1/16" SQ
RUDDER
PIN
WHITE PAPER
1/16" SQ. STRIPS
F-6
F-8
F-2
THRUST BUTTON
CUT NOSEBLOCK THIS SHAPE
NOSEBLOCK
RADIATOR DESIGN DRAWN ON WITH BLACK INK
TAIL WHEEL
F-10
F-5
F-4
F-3
F-1
F-5
USE RAZOR KNIFE FOR CUTTING WOOD
SIDE VIEW
STRINGER
AKRON FUNK
PIN


WING PANEL
RIB A
RIB-A
NC267



Let's get Funky!

Tail Unit.

The stabiliser is constructed in much the same way as the wing. However, the leading-edge spar should be of lighter stock than the leading-edge of the wing. Ribs may also be of lighter balsa, or may be perforated. The centre rib is cut from three laminations of fairly soft $\frac{1}{16}$ in. sheet balsa. A 24 s.w.g. attachment hook is bound to the leading-edge. Note the $\frac{1}{16}$ in. diameter hole bored through the centre rib.

The rudder construction needs very little explanation. Six pieces of medium $\frac{1}{16}$ in. sheet form the outline and the four $\frac{1}{32}$ in. ribs are symmetrical in section. A $\frac{1}{16}$ in. diameter rod of reed-cane passes through the three lower ribs.

Nose-block, Tail-block, etc.

The nose-block is carved from a piece of medium balsa, 1 in. by 1 in. by $\frac{3}{8}$ in. A piece of $\frac{1}{32}$ in. sheet balsa cut to fit into the front of the fuselage is then firmly cemented on to the block. 20 s.w.g. bore duralumin tubing forms the bearing for the propeller shaft.

The tail-block is cut from soft light balsa, and is recessed to fit the rear fuselage opening. A $\frac{1}{16}$ in. diameter hole is bored right through the block to receive the fin-rod. The tail-skid is a piece of $\frac{1}{16}$ in. square bamboo, tapering to $\frac{1}{32}$ in. square, and is pushed into the tail-block for a distance of about $\frac{3}{8}$ in.

Airscrew and Free-wheel.

The propeller is a typical duration " wind-shovel." The full-size blank is shown in the drawing. It should be cut from an 8 in. by 1 in. by $\frac{3}{4}$ in. block of medium balsa. Carve in the usual way, thinning the blades out to about 3-64 in. at the tips. Carve the tips to an elliptical shape, using a paper template to make sure that they are identical. Drill the hub to take a 20 s.w.g. bore duralumin tube, then, after inserting a piece of 20 s.w.g. wire through the bearing, sandpaper away the thick spots until the propeller balances in any position.

The model has been successfully flown with three different propellers, one of which was a ready-made paulownia wood, and beginners who have had no experience in carving would be wise in first trying one of these propellers. When purchasing, specify a hand-carved balsa or paulownia, coarse-pitch (about $1\frac{1}{2}$ times the diameter), and broad-blade, as small-area, fine-pitch propellers are inefficient on a model of this type.

The propeller shaft is of 20 s.w.g. steel wire, and is turned through 270 degrees at the front end to engage the free-wheel catch and to form a winding-hook. The free-wheel catch is made from sheet aluminium or duralumin, about 1-50 in. thick. It is cemented to the airscrew hub with the " hook " part bent up, and the three " tabs " bent down and pressed into the wood. Use plenty of cement round the joint. The other end of the shaft is formed into a motor hook. Cover the hook with rubber tubing, or better still, use a bobbin.

Covering and Finishing.

The whole model is covered in good quality light-weight Jap tissue. Colour scheme to choice of course. The original model had a yellow fuselage and rudder, with red wings and tail-plane. The next model had its fuselage covered in alternate black and yellow panels, giving it a striped appearance (wasp, y'see!). Just what colour in which you finish your model makes no difference—unless you are superstitious. Personally, I always steer clear of green, since all my models covered green have ended up in little pieces.

Cellophane or very thin celluloid should be used for the cabin windows and wind-shield.

After covering, spray all parts with water. Pin wing and tail surfaces down whilst drying to prevent warping. When quite dry, apply a coat of banana-oil and pin wing and tail down again. Nose-block, tail-block and propeller may be given two or three coats of banana oil and the latter waxed and polished.

Assembling and Flying.

The wing is set at 3 degrees positive incidence to the centre-line of the fuselage, and a strip of balsa should therefore be glued on the underside of the centre-section to raise it to this angle. The wing is attached with two small rubber bands running round the fuselage and over the bamboo pegs.

A thin strip of balsa is cemented to the underside of the stabiliser to raise the leading-edge to an incidence angle of $\frac{1}{8}$—1 degree position to the C.L. The fin-rod is pushed through the hole in the stabiliser and then through the tail-block. After the rubber motor has been fitted, a rubber band is passed over the tail of the fuselage and over the protruding ends of the rubber motor peg. The tail-block, complete with stabiliser and rudder, is then plugged into the fuselage. One end of the rubber band previously fitted is brought up over the stabiliser hook to the fin hook, whilst the other end goes back over the tail-skid to the tip of the fin-rod. This part may sound rather involved, but actually is quite simple. The whole secret is in the one small rubber band, which holds five components together.

As already stated, the model may be powered with four, six, or eight strands of $\frac{1}{4}$ in. by 1-80 in. aerostrip, and the angle of the thrust-line depends on this. Three degrees of downthrust are shown in the drawing, and this about the maximum angle that should be necessary under full power.

It is best to start with four or six strands of rubber (about 20—24 inches long and " self-tensioned " to hang just clear of the fuselage floor when unwound; if the motor is allowed to remain taut between hooks when unwound, this will prevent the free-wheel from operating). About $\frac{1}{2}$ to 1 degree of right-thrust may be applied by inserting a strip of balsa between the fuselage and nose-block on the port side. This will make the model fly more or less straight. Make sure that the wing and tail incidence angles are correct and that everything is square, then try a few glides.

The model is fairly robust, and can be launched from shoulder-height quite safely; in fact, it is advisable to launch high, as the true glide cannot be observed in short hops. The wing position may be adjusted until a flat glide without stalling tendencies is obtained.

A power flight may then be tried with about 100 turns on the propeller. This is just a preliminary; no adjusting should be necessary at this stage. Increase the turns with each successive flight. When the model begins to stall upon launching apply downthrust to the propeller. Continue to increase the turns, and, if necessary, increase the angle of negative propeller thrust. Find the correct downthrust angle (excessive downthrust will prevent the model from climbing), then fix it permanently by cementing strips of balsa on the nose-block to give the necessary angle. The model should be made to circle to the right under power—use the rudder for this after having offset the propeller shaft to give straight flight.

Needless to say, all testing should be carried out on a still day. This is no " fair weather " model, however. The original was once flown in a breeze that carried it nearly half-a-mile in a three-minute flight.

September 20, 2015 Flint Report

George Bredehoft

Sunday was a great day for flying - probably the best at Flint this year. Winn and I were at the field around 9am and found it difficult to determine just exactly which way the barely noticeable breeze was heading. Since some early test flights drifted to the tracks and woods right in the corner next to the CL circles where we were, we decided to head east and set up along the north side of the field. In the dead middle of the field probably would have been the best solution, but no one thought of that!

Eventually we had 8 flyers show up: Winn, Jack, me, Stu, Ray, Pete, Chris, Ron. Those that were otherwise occupied missed a great day. The winds never got higher than a breeze and were often still. There were moderate thermals and drift was minimal. Most flights were easily retrievable. As an example, Chris Boehm put on another thermal show with his 19th Yellow Cab Embryo. His first official flight was over 6 minutes and landed in the center of the park. His second official flight was similar - but different. It went, up, up, up and drifted towards the ball field, then headed west, then headed northwest across the tracks...and kept going up and away. I lost sight of it (with binoculars) when it went behind a tree at 13:49 - it was over the highway or golf course or somewhere far away. Winn and I had a series of 60-90 second flights each and Chris came in third in Embryo. You can't put up 20 minutes in two flights and win when you can only record 4 minutes.

It was Octogenarian Day when it came to the Mass Launches. Jack Moses beat 4 competitors to take WWII and Stu Weckerly won Goodyear races handily beating Winn and me. As my son, Jack, would say, "old man strength!"

By 3pm rolled around, we were all out of planes and events to fly and we all headed home early. Below are the official results. --george

Embryo (5 flyers)
1st - Winn Moore, Debut
2nd - George B., Durham Mystery
3rd - Chris Boehm, Yellow Cab
2 Bit + 1 (4 flyers)
1st - Winn Moore, Wisp
2nd - George Bredehoft, Pacific Ace Jr
3rd - Pete Azure, King Harry
No Cal (3 Flyers)
1st - George Bredehoft, Turbo Stallion
2nd - Ron Joyal, Corsair
3rd - Winn Moore, Staggerwing

WWII Combat (5 flyers)
1st - Jack Moses, Helldiver
2nd - Ron Joyal, P-51
3rd - Winn Moore, Kharkov
Goodyear Races (3 flyers)
1st - Stu Weckerly, Buster
2nd - Winn Moore, Mirage
3rd - George B., Falcon Special II

October 18, 2015 Flint Report

George Bredehoft

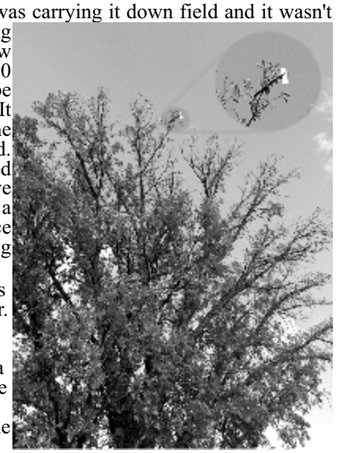
It was a cold morning, just above freezing, but it was dry and sunny with just a moderate breeze. Eight flyers came out to the field to toss their models into the air. Early on, before any serious flying started, we decided the Cloudbusters P-30 Oldenkamp Cup would be decided that day. After passing on this event last meet, we couldn't predict what the weather would be like in two weeks, so we took advantage of the nice fall weather to compete for the Cup.

Much of the flying time was taken up by flying P-30. Our local rules for one once-a-year event follow P-30 rules, except we allow unlimited flights for your best 3 times, preserving a 120 second max on any given flight. With the cool weather, it was doubtful that anyone would approach a max, and I jumped to the front of the pack with a 61 second first flight (no one else had recorded a time yet!) That was my best time of the day, and I ended in third place. Winn Moore took second - he claims due to the fact that his model became stuck in the very top of a 50 or 60 foot oak tree just outside the park and he could fly no more. Chris Boehm took the cup this year (ending Winn's 3-consecutive-year streak), primarily based on a nearly 4 minute flight on his Roger Dodger AND the fact that Winn Moore chased it through the neighborhoods and told Chris in which back yard the plane landed.

Winn Moore won three out of four FAC events at this meet. His Kharkov beat out my Stuka, Ron Joyal's Mustang, and Jack Bredehoft's Wildcat. His Mr Mulligan beat my Keith Rider R-2, and John Jackson's Chambermaid. His Stallion NoCal won on a 5+ Minute OOS flight over, Jack's Cessna Centurion, and my Turbo Stallion.

Chris went home with his Yellow Cab #19 in a solid first place in Embryo. This is the plane that he lost on the 18 minute OOS flight a month or so ago. He puts "Reward - call me" on all his planes and this isn't the first time it paid off. He had just over 200 points and it looked like that would be tough to beat. I had a couple 60+ second flights on my Sky Rocket with one more to go. But Winn had two 70+ second flights and one remaining with his Durham Mystery Ship. I wound my Sky Rocket up tight and pointed it into the wind. It took off and flew well, but I felt my time was short - but I took first by one point! However, Winn still had one flight to go. He only needed a mediocre performance to take the victory from me - roughly 50 seconds on a plane that had been doing 70 seconds that day.

I timed him as he launched. Something was wrong, the plane stalled and was fluttering. I knew what he needed for the win. Now it looked like he wouldn't get that. The wind was carrying it down field and it wasn't rising. The plane was getting closer and closer to the trees. Now I was worried. If he got less than 20 seconds, the flight would not be official and he could try again! It went into the trees and I hit the button on the watch - and looked. 29 seconds! As Jack and I recorded the time and checked the scores we saw that Winn had gone from a near-certain first place to last place - Ron Joyal took third with his Big Cat.



We all packed up, hoping this wasn't the last contest of the year. We still have 01 November - but what will the weather be? Our day ended at 49 degrees. It was a little chilly with the wind, but the sun was out most of the day and there were a couple boomers. The drama was high, as most events were very close, coming down to the last flights. It was a great time, and we toasted the Cup winner, Chris, with our customary champagne and with the toast there was also a salute to another fine flying season - one that passed by much too quickly.

P-30 - 6 flyers
Chris Boehm - Roger Dodger
Winn Moore - Square Eagle
George Bredehoft - Stray Cat

Embryo - 4 flyers
George Bredehoft - Sky Rocket
Chris Boehm - Yellow Cab
Ron Joyal - Big Cat

NoCal - 3 flyers
Winn Moore - Stallion
Jack Bredehoft - Cessna Centurion
George B. - Turbo Stallion

WW-II - 4 flyers
Winn Moore - Kharkov
George Bredehoft - Stuka
Ron Joyal - Mustang

Combined Races - 3 flyers
Winn Moore - Mr Mulligan
George B. - Keith Rider R-2
John Jackson - Chambermaid

In between the two contests that George reported on, there is a little more of the story about my number 19 Yellow Cab embryo. Yes, we all lost sight of it on Sunday, September 20, by most observers it was still going up. I had given up looking for it and just preasantly smiled at another bittersweet victory, otherwise known as an OOS.

I did make the obligatory, after the contest drive, around the golf course and the roads in which the plane had been heading, but to no avail.

On Tuesday I received a telephone call, that someone had found my plane. It had landed in a school parking lot about one and a half miles from Broome Park, where I had launched it. I gladly got their address, they did tell me that the tail seemed to be broken. I was still happy, due to the fact the plans were still on the building board for this plane, but instead of building a whole new plane, I looked forward to just repairing the tail section. When I got to their house I gladly gave them their reward for most of my plane. The tail section was not broken, IT WAS MISSING. Everything from about a half inch behind the motor peg back, - Just gone.

I built a new tail section, but this time I did add a DT. The stab pops up after a fuse burns down. For those of you looking for details, stay tuned to another day, but the stab is held on at the front by a small plastic hinge, the kind the RC guys use for control surfaces. The "spring" is a small bunch of foam rubber, glued to the inside of the fuselage and to the bottom of the stab. I have tried a lot of other springs, but this one is light weight and simple, and I LIKE SIMPLE.

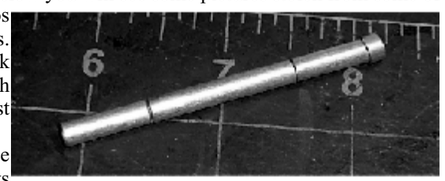
Of course, at the next contest, I did not need the DT, but I did not lose my plane. Maybe it will be awhile before I build Yellow Cab #20.

Chris A. Boehm

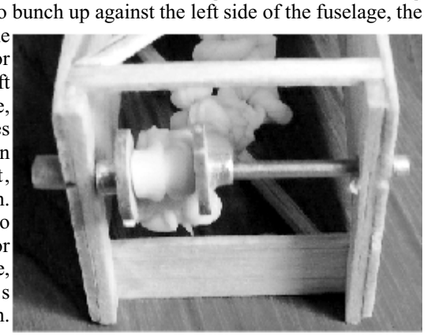
Rear Motor Pegs Again

There have been some great articles written on the use of very long motors and keeping them from bunching in the tail by use of a sleeve or bobbin on the rear peg.

Just go to www.pensacolafreeflight.org/page5/page5.html and scroll down to the "R"s. Below you will see some pictures stolen from some of those articles, photos from Stew Meyers. The bobbin does work and it works much better than the first sleeve pictured.

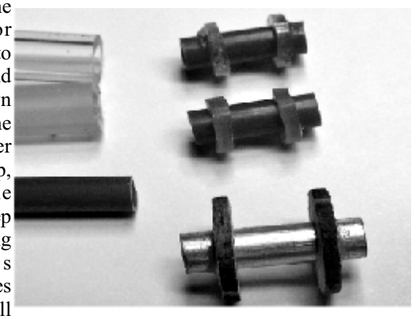


Your humble editor has to always think about why some things work and others do not. I have thought about this one for a long time and I think that I have figured it out. As the long wound up motor tries to bunch up against the left side of the fuselage, the bobbin is pushed to the right allowing the motor to unbunch from the left side of the fuselage, when the motor bunches to the right the bobbin moves to the left, allowing freedom again. When the motor tries to bunch against the top or bottom of the fuselage, the bobbin rotates allowing freedom again.

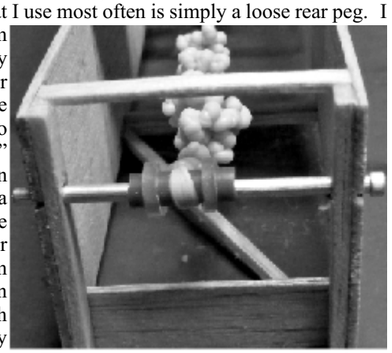


With that in mind, it is easy to see why the bobbin works better than the sleeve above. The sleeve anly works ups and down, not left and right.

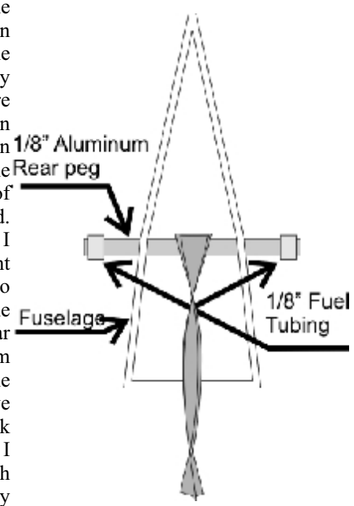
Simply stated, the rear rubber anchor needs to be able to move left or right, and rotate up and down freely to help stop the bunching of the rubber against the sides, top, and bottom of the fuselage. Please keep in mind, the only thing guaranteed is yesterday. Sometimes the motor may still bunch. Stew has furnished more pictures of different bobbins for this use.



For those of you that know me, you know that I like simple. The version of the bobbin that I use most often is simply a loose rear peg. I have used 1/8" aluminum pegs for years now. They are strong enough for everything that I have ever built, including up to six strands of 3/16" rubber. I even use it on peanuts, but for a different reason. The hole is large enough for me to get my wire from my stooge through it in bright sunlight, with sweat dripping from my nose and only one eye sort of working.



I do make the holes for the rear peg slightly larger than most, just large enough for the 1/8" tubing to move very freely. They, the holes, are reinforced with CYA and in some cases, 1/32" plywood on the inside of the fuselage. The rear peg can simply fall out of the fuselage, if not retained. To keep this from happening I use what Dave Livesay taught me. 1/8" fuel tubing cut into "O" rings and slipped onto the ends of the rear peg. The rear peg however sticks out from the fuselage enough so that the bunched up rubber can move the peg, not just a bobbin, back and forth, and up and down. I have never lost a rear peg with this setup and the motor hardly ever bunches in the tail. For you purist, the peg is slightly long and to some looks funny sticking out the side of the fuselage, but no funnier to me that any peg sticking out the side of the fuselage.



As always, if you like this, use it. If you disagree or have any opinions on it please contact me for further discussion at merlin236@comcast.net or call at 810-348-8675.

Chris A. Boehm