CENTRAL INDIANA AEROMODELLERS

INFORMER

FREE FLIGHT NEWS OF THE MIDWEST

** The Weather **

Forked lightning at night,
next day clear and bright!

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Another *"How I Got Into Free Flight"* story, as related by Agent **O. C. Stewart** (1929-2029!).....

"Some dogs are born to chase cars. I was born to chase free-flight model airplanes!"

"Before learning to read, I was trying to build models. Mother would give me 10 cents to buy ice cream at the local grocery. And they had an area for these 10-cent kits (which included glue and tissue!). I guess I was 5 years old, before starting 1st grade. And by the 4th grade, I'd built the first 'mother-approved' model."

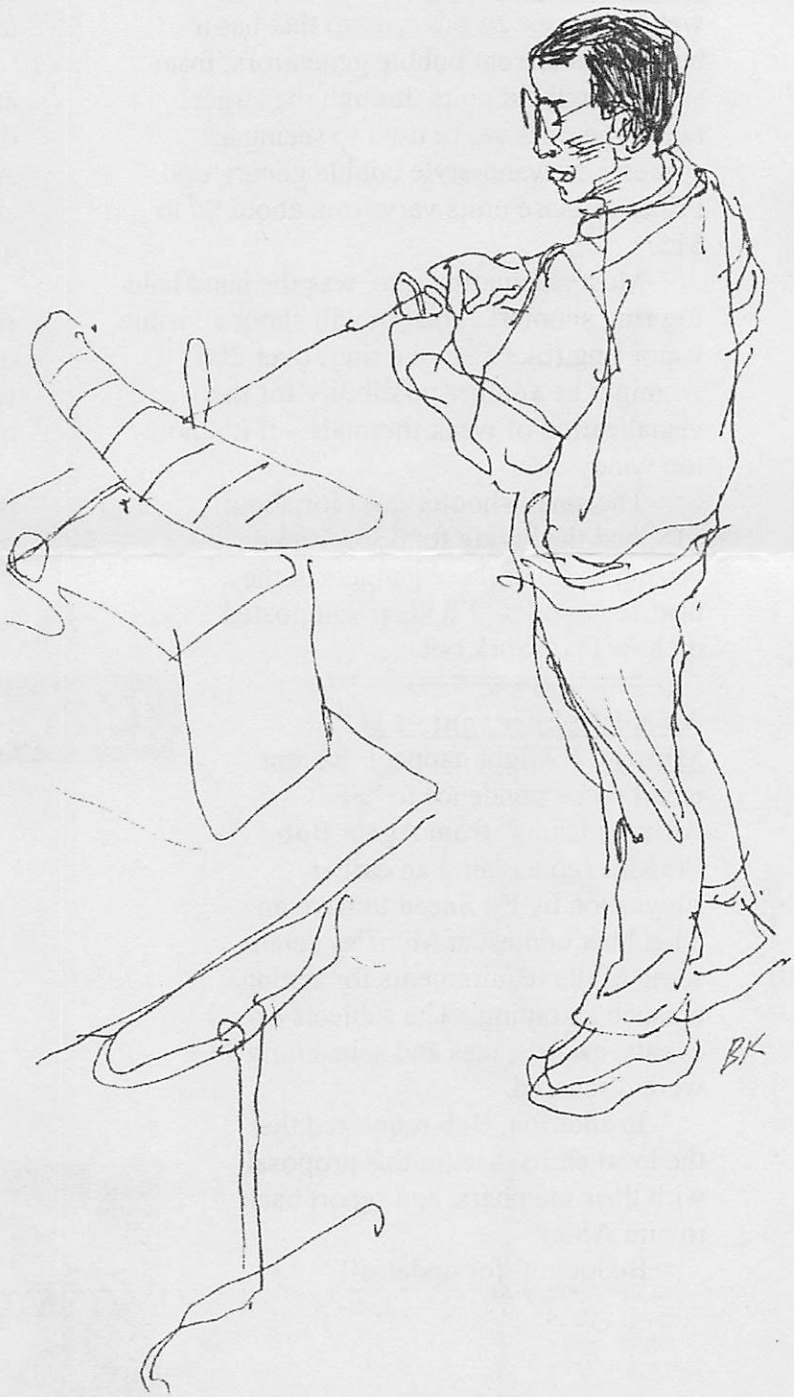
"By the 5th grade I'd built a satisfactory *Korda*. My father was going to test fly it with a 24" fan, but the fan sucked, instead of blowing! So much for that model!!"

"When I joined the AMA in 1938, dues were 50 cents/year. By high school I'd flown all over West Virginia – where the average wind is 3mph! (I also flew in Pittsburg, Philadelphia, Detroit and Cleveland.) In 1946, I won the West Virginia State Champion-ship for Free Flight. I later attended the 1947-48 and 1949-50 Plymouth Internationals, where **Bob** (Doctor) **Perkins** and I flew team events. We're still good friends! And when I was in the service (1952-55), I built U-control stunt models in the front seat of a 1941 Buick!"

"I was born in Clarksburg, WV, in August of 1929. My parents were totally supportive of my hobby efforts. The VFW Post #573 sponsored the Model Airplane Club from 1928 through 1958. Carl A. Hopkins was the director of our club."

"I moved to Muncie in November 1999, because AMA is headquartered here. Being a Museum volunteer is one of my modeling career highlights – after my presidency of the Central Indiana Aeromodellers!"

Many thanx, O. C.! *(How 'bout it – surely there are more of our readers with their stories. Share!!)*



I don't know how many of our readers pay attention to *"The Weather"* box (on the front page of the Informer), but there's lotsa wisdom & truth in these old sayings. And it's getting harder and harder to come up with ones that haven't been used yet! The trick is to find ones that are short enough to fit into the space we have available. Any Agents out there have any "new" ones to submit? I sure could use a few…..

Bunches 'O Bubbles! I came across a cool website (www.zerotoys.com) that has a bunch of different bubble generators: from small, handheld units through the larger, tank-type ones we're used to seeing at contests, to wand-style bubble generators! Prices of these units vary from about $6 to $15.

Most fascinating, tho, was the hand held fog ring shooter! This rig will shoot a visible vapor ring (like a smoke ring) over 20ft! ….might be another possibility for the visualization of weak thermals – if it's not too windy….

The small shooter goes for about $18, and the biggie for $30. I'll be buying some of these gadgets in the next few weeks. I'll keep you posted on how they work out…..

An All-Rubber contest at Muncie?? Might happen! Recent email correspondence to "FF Alliance Clubs" from Agent **Bob Perkins** (concerning an earlier suggestion by Ed Sneed to have an all-rubber contest at Muncie) details some of the requirements for setting up such an outing. The subjects of events, awards, fees and scheduling were discussed.

In addition, Bob requested that the local clubs discuss this proposal with their members, and report back to him ASAP.

Be lookin' for updates!!

Tall Stack – Agent **Jim Richmond**'s latest, very successful endeavor! About it's design philosophy, Jim relates:

"Having been inspired by Tony D'Alessandro's success in reaching 20+ minutes with his Pennyplane, I decided last winter to try my hand at it."

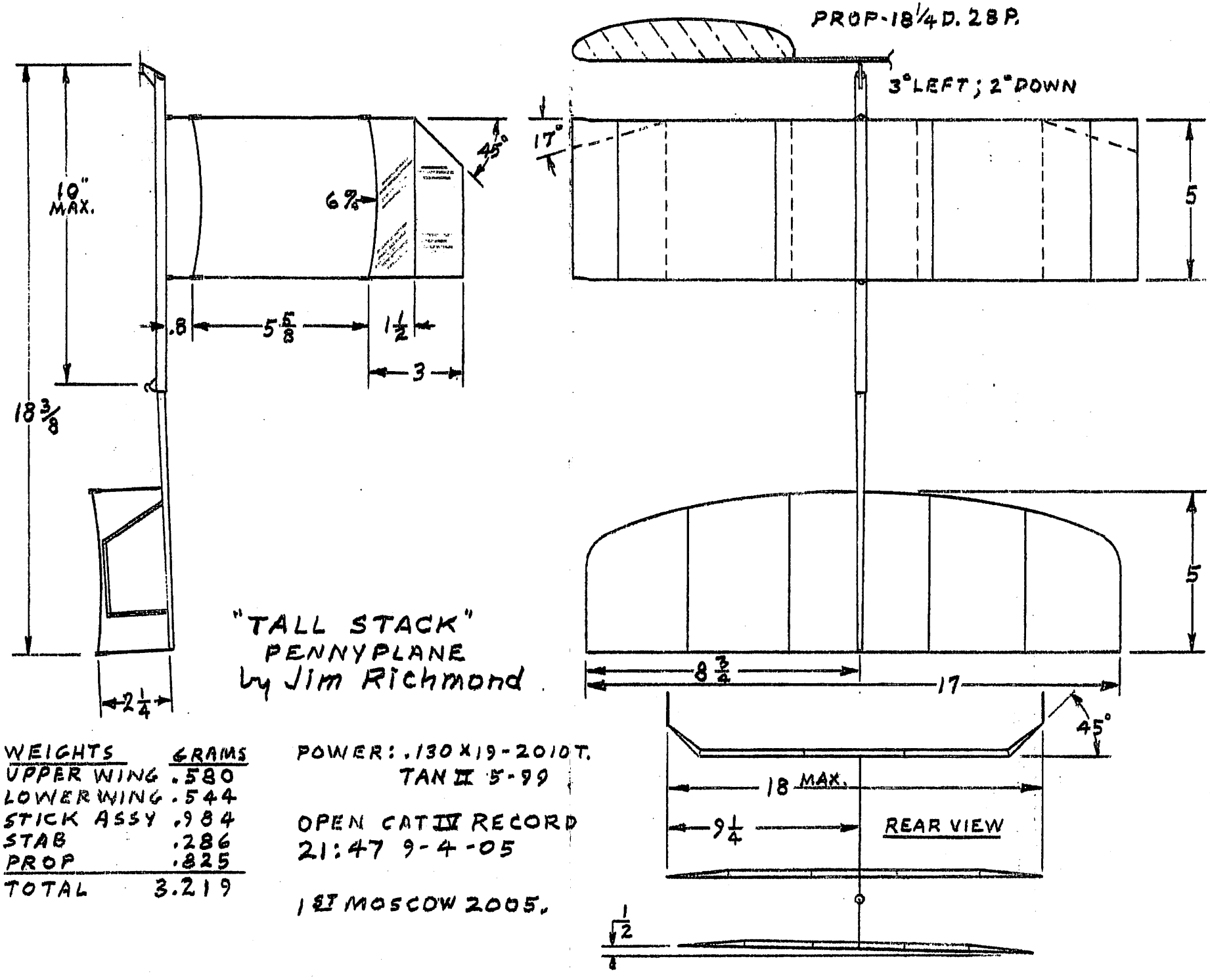
"Of course, I had to do things a little different than usual, in the hope of improving performance, and this resulted in a "tall" airplane of almost 12" in overall height due to the wider-than-usual spacing of the wings and the lowering of the stab."

"Another difference that attracts attention is the flat lower wing – you just don't see many flat wings on our planes. Also, the small rudder tucked between the stab posts has been questioned, but works quite well!"

"The huge 18 ¼" dia. prop is actually a scaled-up version of the old EZB prop I used on my *"Kokomo Bomber"* in the 1960s. It worked well then and has proven to work quite well in this application."

"One of the neat things about this design is that it has been able to turn in winning performances without the need for a variable pitch prop – and the model consistently stays under the girders!"





"TALL STACK"
PENNYPLANE
by Jim Richmond

WEIGHTS	GRAMS
UPPER WING	.580
LOWER WING	.544
STICK ASSY	.984
STAB	.286
PROP	.825
TOTAL	3.219

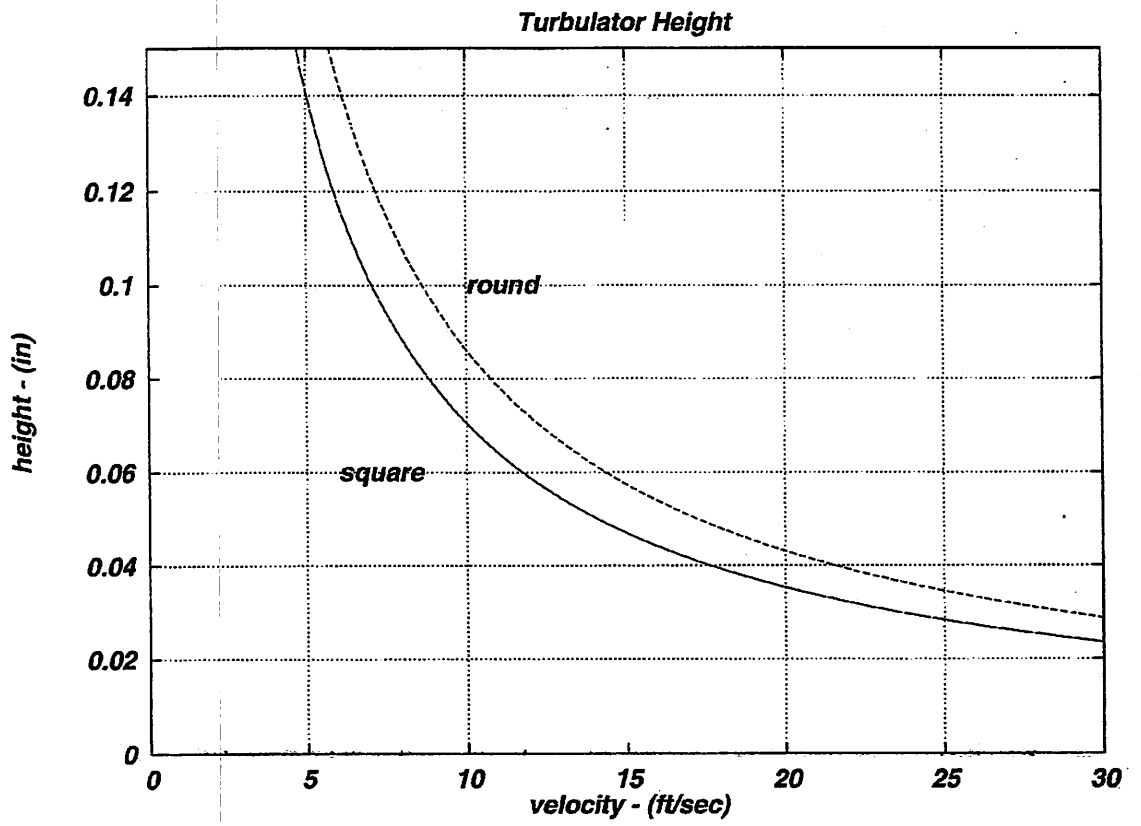
POWER: .130 X 19 - 2010T.
TAN II 5-99

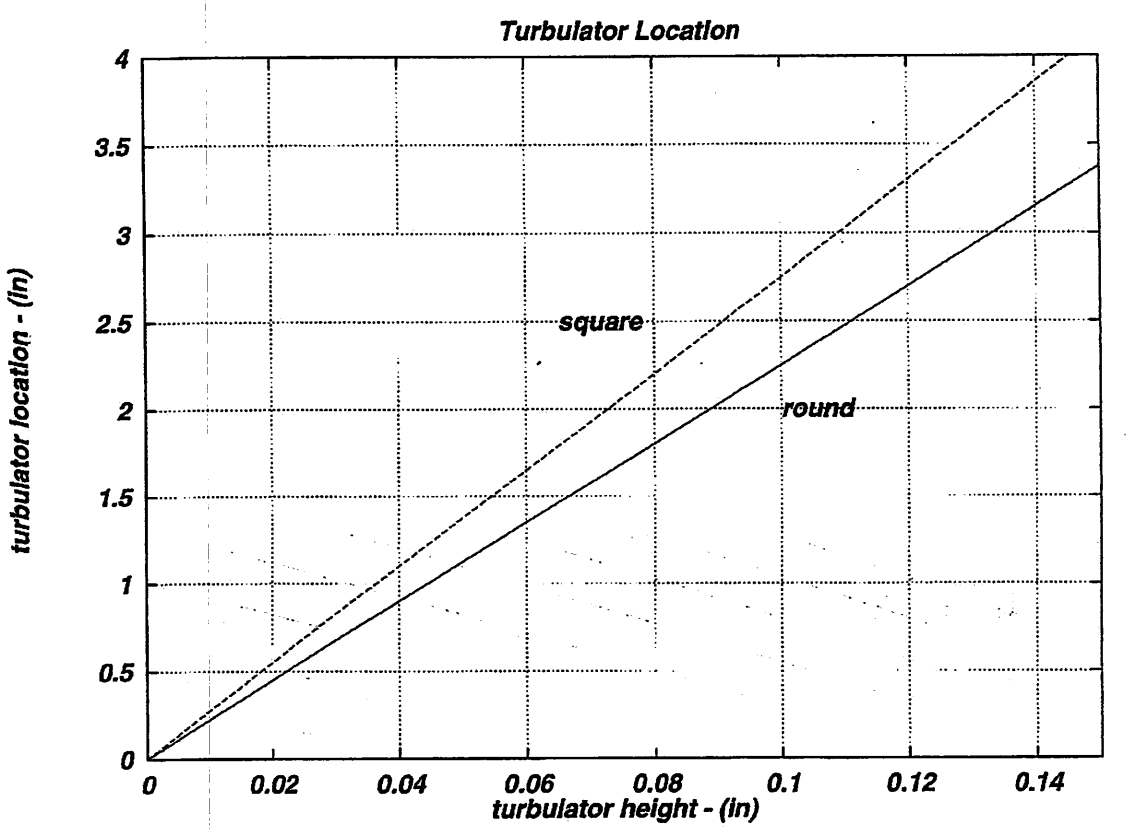
OPEN CAT III RECORD
21:47 9-4-05

1ST MOSCOW 2005.

Something old**.....** For those among you that are into figuring out the actual size and location of turbulators for a given situation, check out the following charts by Peter Soule. He's simplified my original calculations for this chore, and furnishes charts to figure out what's best for your model. (Might give you an edge – especially for FAI types, where a 1% gain is considered a breakthrough!) Works for props, too!

assumes $\nu = 1.68 \times 10^{-4}$





And if y'all want the *'Rest of the Story'* – complete with derivations - here 'tis....

Symbols are the same as yours except I use the conventional Greek lower case nu for kinematic viscosity.

Turbulator Critical Reynolds number is from a set

$$R_k \in \{360,440,...\}$$

Turbulator height is the from the same relation as yours

$$k = {\nu R_k}/{U_\infty}$$

Solve for the distance downstream of the stagnation point for the turbulator as you did. the 1.25 and 5 factors are included here:

$$X = {U_\infty k^2}/{16\nu}$$

Now substitute the first relation for *one* of the values of k:

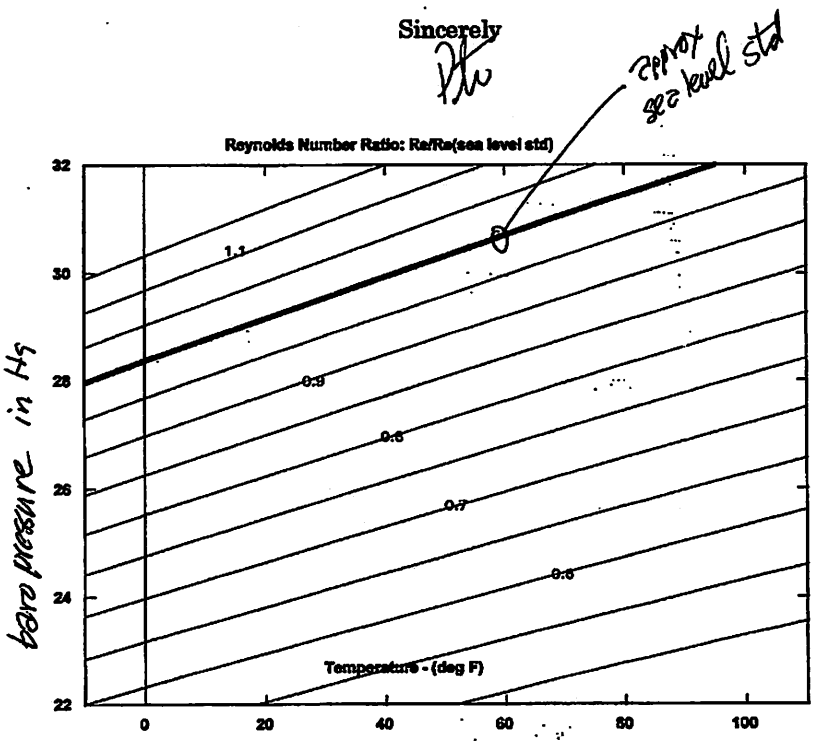
$$X = \left({U_\infty k}/{16\nu}\right)\left({\nu R_k}/{U_\infty}\right)$$

Simplify and one has:

$$X = {kR_k}/{16}$$

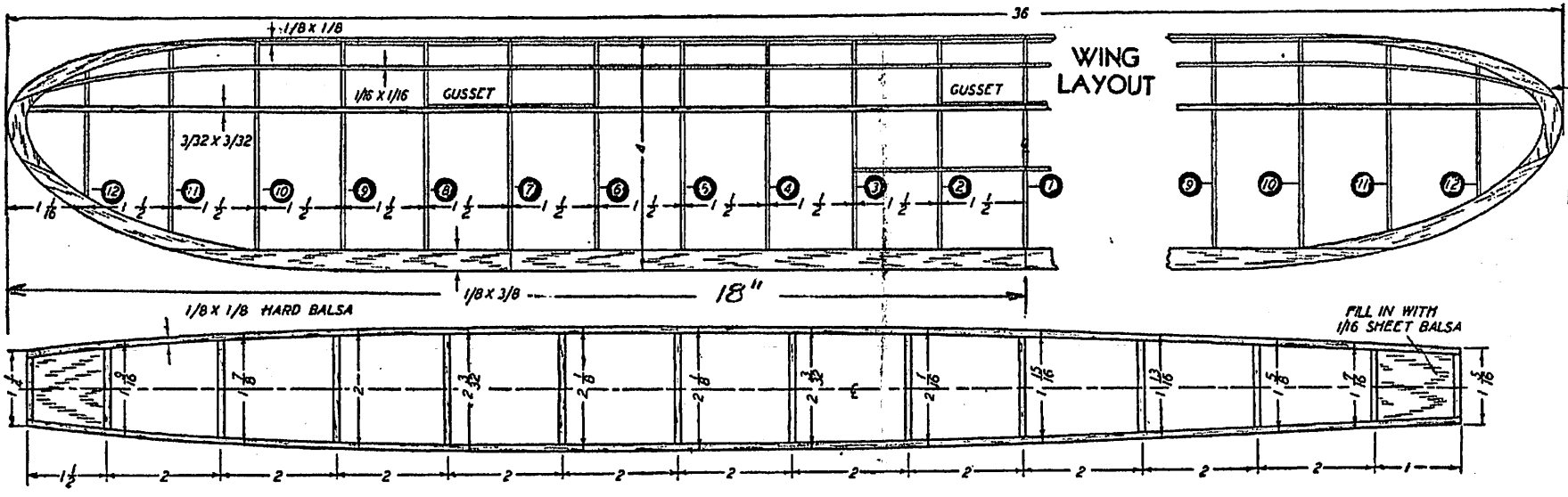
So there it is. Once the turbulator height has been determined the location is a just a multiple of it. In fact, assume that the critical Reynolds number was chosen for round turbulators. to redo the calculations for square ones just multiply both height and location by the ratio of critical Reynolds number.
I have written a windows program to compute atmospheric quantities for any atmospheric pressure, temperature, and humidity. SI and conventional US unit systems are supported and many different ways of input (e.g. pressure altitude, density altitude, pressure in in. Hg and so-on are supported.). The value here is to get the correct Reynolds number which varied quite a bit due to temperature, as you know, and also with pressure and humidity. If you have a computer that supports Windows 3.1 programs (i.e. Windows 3.1, Windows 95 and Windows NT) I'll send it to you, but I have enclosed a chart for dry air to indicate the range of values kinematic viscosity has, which could be of some interest.

Sincerely



'Open Road'
- Class C Stick -
by Ralph Brown
(1940-41)

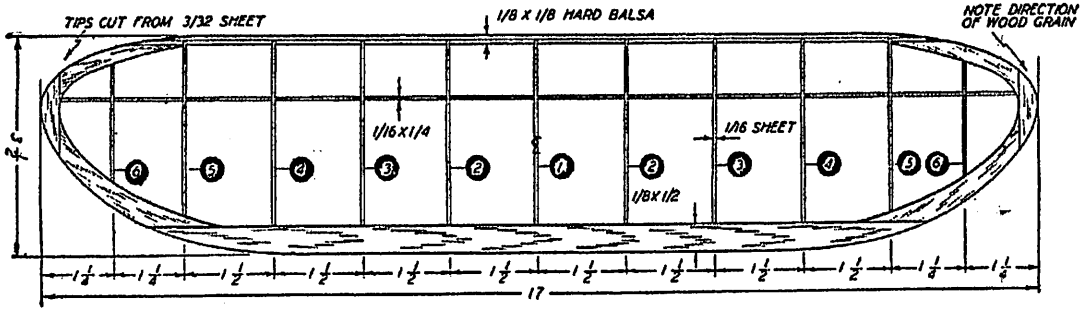
WING LAYOUT

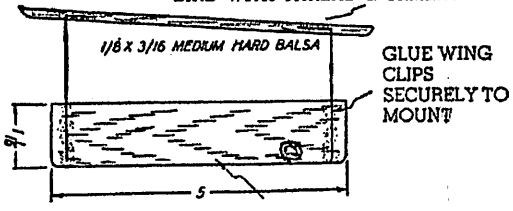


LIST OF MATERIAL

BALSA WOOD

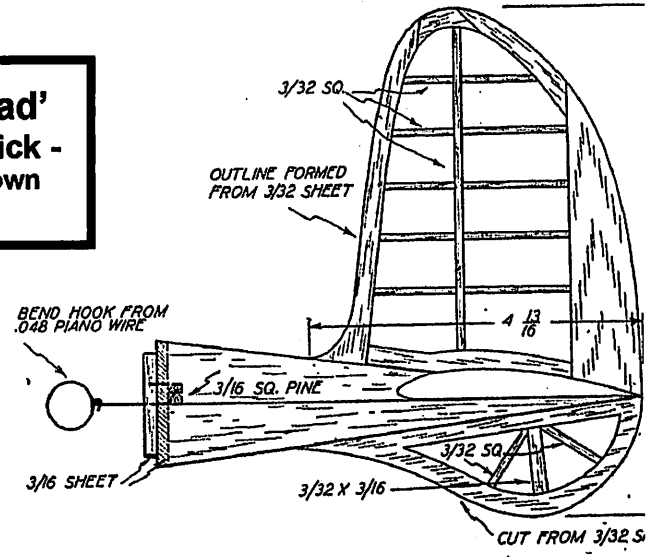
3 pc.	3/32" x 3/32" x 36"
10 pc.	1/8" x 1/8" x 36"
2 pc.	1/16" x 1/16" x 36"
1 pc.	1/8" x 3/8" x 36"
1 pc.	1/8" x 7/16" x 36"
1 pc.	1/8" x 1/4" x 36"
3 pc.	1/16" x 2" x 18"
1 pc.	1/32" x 3" x 18"
1 pc.	3/32" x 2" x 18"
1 pc.	3/16" x 1 1/4" x 6"
1 pc.	1 1/4" x 1 1/4" x 1"
1 pc.	1 1/4" x 1 3/4" x 9"
1 pc.	1/8" x 1/2" x 15"
1 pc.	1/8" x 3" x 18"



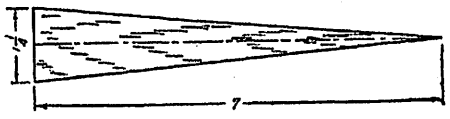


MAKE WING SADDLE OF 1/16 SHEET BALSA

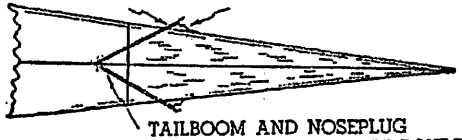
RUDDER



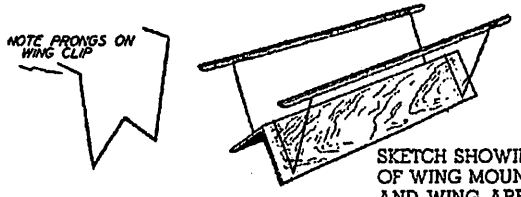
TAILBOOM—CUT FROM 1/32 SHEET



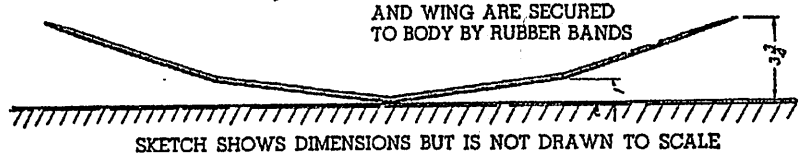
RUBBER BANDS SMALL WIRE HOOKS



TAILBOOM AND NOSEPLUG HELD IN PLACE BY RUBBER BANDS

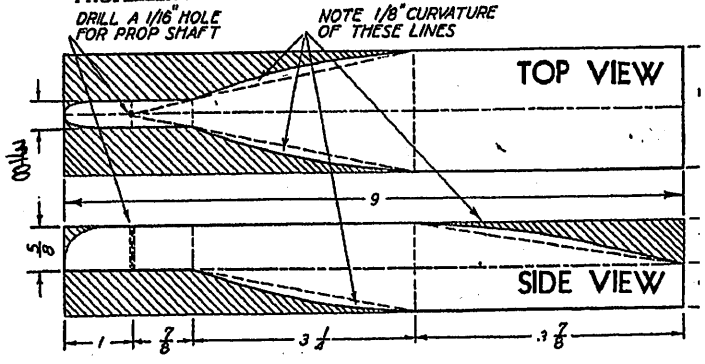


SKETCH SHOWING ASSEMBLY OF WING MOUNT. MOUNT AND WING ARE SECURED TO BODY BY RUBBER BANDS



SKETCH SHOWS DIMENSIONS BUT IS NOT DRAWN TO SCALE

PROPELLER BLOCK—FOLLOW DIMENSIONS SHOWN CAREFULLY



ALL DIAGRAMS ON THIS PAGE, AND STABILIZER RIBS ABOVE, ARE ACTUAL SIZE FOR EASY USE AS PATTERNS

PROPELLER SHAPE SHOWN FULL SIZE. COPY CAREFULLY

CROSS SECTION

WING RIBS

RIBS 1-3

RIBS 4-10

RIB-11

RIB-12

WING GUSSET

CUT FROM 1/32 SHEET

STABILIZER RIBS

RIBS 1-4

RIB-5

RIB-6

PROPELLER FITTINGS

MAKE TWO OF 1/32" BRASS FRONT AND REAR OF NOSE PLUG

TOP

BEND FROM .040 WIRE

SOLDER

BEND FOR HINGE

SIDE VIEW

SMALL SCREW

BIND WITH THREAD

RUBBER OR CAMBRIC TUBING TO PREVENT CHAFING

1/32" BRASS

END VIEW WHEN BENT

WRAP WITH RUBBER STRAND

.048 WIRE

SAFETY PIN OR BENT .030 WIRE SPRING

BALL BEARING WASHER

SHEET LEAD WRAPPED AROUND WIRE FOR

3 3/8

FRONT WING CLIP FULL SIZE

BEND FROM .048 PIANO WIRE

REAR WING CLIP FULL SIZE

BEND FROM .048 PIANO WIRE

MISCELLANEOUS

- 1 pc. .048 wire 30" long
- 1 pc. .040 wire 3" long
- 1 pc. .030 wire 2" long
- 1 pc. .036 wire 8" long
- 1 Ball Bearing washer
- 1 sheet yellow tissue
- 1 sheet red tissue
- 1 sheet red bamboo paper
- 1 oz. red dope
- 1 oz. clear dope
- 1 oz. cement (model)
- 36' 1/4" brown model rubber
- 1 pc. lead 1/32" x 3/4" x 1"
- rubber lubricant
- 1 pc. brass 1/32" x 1" x 3"

NOFFA 2005 SUMMER CONTEST RESULTS

August 19 -21 2005 Munice Indiana

Hand Held Cat Glider

Guy Scott	197
Bill Reuter	169
Jason Poti	156
JBM Griner	147
Hank Sperzel	90

ABC OT Fuselage

Bill Hale	273
Dan Harshman	227
Elmer Jordan	223
Bob Edelstein	181

Classic Towline

Hank Sperzel	312
Elmer Jordan	102

C Nos. Gas

Keith Fulmer	480
Bob Edelstein	398
Gene Wicks	318
Jack Marsh	230

020 OT/Nos Combined

Elmer Jordan	264
John Seymour	231
Bill Snaden	42

1/2 A Classic

Ronnie Thompson	600
Roy Stewart	581
Jack Marsh	572
John Seymour	120

High Point

Ronnie Thompson	2160
Jack Marsh	2108
Hank Sperzel	1844
Elmer Jordan	1459
Bob Edelstein	1397
Gene Wicks	1363

AB Classic Power

Jack Marsh	1050
Ronnie Thompson	1038
Hank Sperzel	348
Roy Stewart	237

1/2 A Gas

Ronnie Thompson	715
Jack Marsh	685
Bob Placier	224

1/2 A Gas Jr.

Jonathan Snaden	130

Mulvihill

Joe Williams	300
Walt Tomasch	99

Moffet

Joe Williams	780
Walt Tomasch	540

OT Rubber

Joe Willams	570
Walt Tomasch	459
Roy Stewart	240

ABC OT Plyon

Dan Harshman	480
Gene Bowers	360
Bob Edelstein	325
Elmer Jordan	303
Gil Morris	275
Bill Hale	120
Bill Snaden	58
Bob Placier	49

B Nost. Gas

Gene Wicks	342
Bob Edelstein	288
Charlie Harper	278
Hank Sperzel	224

1/2 A Nos. Gas

Gene Wicks	343
Elmer Jordan	341
Keith Fulmer	340
Bob Edelstein	243
Don Boyer	213
Bill Snaden	179

CD Classic

Jack Marsh	360
Ronnie Thompson	324

.020 Payload

Elmer Jordan	222

A Gas

Ronnie Thompson	360
Jack Marsh	308
Bob Placier	120

A Nos. Gas

Charlie Harper	559
Gene Wicks	479
Keith Fulmer	455
Norm Poti	358
Hank Sperzel	303

Team Glider Challenge

Poti, Scott
Wicks, Sperzel
Reuter, Johnson
J. Poti, Thompson

P - 30 Open

none

Lil Dip/JetStream Glider

Hank Sperzel	297
Elmer Jordan	106

Nost. Rubber/Wake

Ed Sneed	540
Joe Williams	354
Roy Stewart	299

Hand Launch Glider

Ronnie Thompson	144
Jason Poti	133
John Seymour	131
Bill Reuter	107
JBM Griner	19

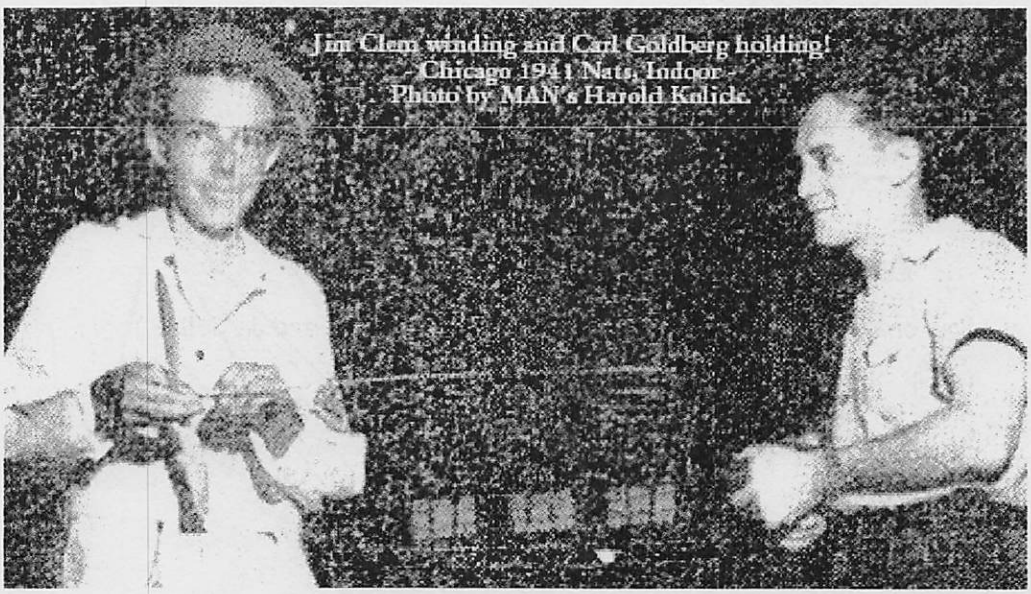
B Gas

Ronnie Thompson	600
Hank Sperzel	583
Norm Poti	360

C Gas

Ronnie Thompson	360
Jack Marsh	358

* note, only 1 Junior entry.
* Windy most of the weekend.



COFFC Annual Meet – Sept. 10-11, 2005. Muncie, IN
33 contestants.

1/4A Nos (3)	
1. Rudy Kluiber	360
2. Elmer Jordan	247
3. Bob Edelstein	75

OT A Gas Pyl/Cab (3)	
1. Dan Harshman	357
2. Bob Edelstein	272
3. Elmer Jordan	256

1/2A Gas (2)	
1. Gil Morris	477
2. Jason Poti	309
3. —	

Mulvihill (6)	
1. Bob Perkins	840
2. Joe Williams	811
3. Ed Sneed	761

Jr. Cat. Glider (1)	
1. Emma Coverdill	31
—	
—	

B NosGas (3)	
1. Dick Covalt	816
2. Gene Wicks	518
3. Bob Edelstein	312

.020 Replica (1)	
1. Rudy Kluiber	346
—	
—	

1/2A Classic Gas (3)	
1. Jack Marsh	851
2. Rudy Kluiber	337
3. Roy Stewart	23

Moffet (2)	
1. Joe Williams	540
2. Ed Sneed	120
—	

A Nos (4)	
1. Gene Wicks	1200
2. Dick Covalt	596
3. Norm Poti	360

OT Rubber Cabin L&S (5)	
1. Joe Williams	753
2. Ed Sneed	710
3. Bucky Walters	517

C/D Gas (1)	
1. Guy Scott	
—	
—	

Jr. P-30 (2)	
1. Claire Torterelli	300
2. Emma Coverdill	295
—	

Cat. Glider (S.O) (5)	
1. Rudy Kluiber	238
2. J.B.M. Griner	140
3. Lee Campbell	136

Nos Ignition (2)	
1. Elmer Jordan	291
2. Bob Edelstein	180
—	

OT B/C Pyl/Cabin (3)	
1. Dan Harshman	315
2. Elmer Jordan	286
3. Bob Edelstein	229

A/B Classic Gas (4)	
1. Jack Marsh	573
2. Bob Watson	350
3. Dick Covalt	346

OHLG (4)	
1. Lee Campbell	194
2. John Seymour	189
3. Jason Poti	80

NFFS Cl. Glider	
1. Rudy Kluiber	485
2. Guy Scott	332
3. Cliff Reidel	243

Pee Wee 30 (2)	
1. Rudy Kluiber	2213
2. Elmer Jordan	1572
—	

C/D Classic Gas (1)	
1. Dick Covalt	319
—	
—	

P30 (S.O) (5)	
1. Lee Campbell	295
2. Bucky Walters	293
3. Drew Coverdill	289

1/2A NosGas (3)	
1. Dick Covalt	816
2. Gene Wicks	518
3. Lee Campbell	312

Nos Rubber/Wake (3)	
1. John Seymour	540
2. Bucky Walters	451
3. Joe Williams	281

OT Rubber Stick, L&S (2)	
1. Steve Sova	780
2. Bob Erpelding	505
—	

A/B Gas (2)	
1. Norm Poti	600
2. Dick Covalt	562
—	

F1J (4)	
1. Bob Gutai	744
2. Norm Poti	743
3. Gil Morris	598

Floyd Miller Memorial Trophy: Gene Wicks – 1200 seconds.

(No entries in F1G, Jr. 1/2A Gas, Jr. 1/2A Classic Gas and Jr. OHLG.)

33rd Annual CIA Regional FF Championships

Sept. 16, 17, and 18,2005 Muncie, Indiana

A NosGas (5)

1	Charlie Harper	800
2	Dick Covalt	702
3	Gene Wicks	580
4	K. Fulmer	221
5	E. Jordan	111

1/2A Gas (6)

1	Gil Morris	750
2	Jack Marsh	720
3	Jean Pailet	465
4	Bob Hanford	322
5	Paul Masterman	187

B Gas (4)

1	Norm Poti	600
2	Hank Sperzel	484
3	Guy Scott	480
4	Bob Watson	357

CD Classic (5)

1	Brad Bane	1350
2	Bob Mattes	1324
3	Jack Marsh	745
4	B. Watson	580
5	B. Hanford	473

1/4A NosGas (4)

1	Rudy Kluiber	333
2	Keith Fulmer	331
3	RP Hanford	328
4	Elmer Jordan	278

Nos Wake (2)

1	RP Hanford	310
2	E. Konefes	300

Moffett (2)

1	Ed Konefes	535
2	Chuck Markos	516

F1H (3)

1	Bill Schlarb	562
2	J. Pailet	476
3	R. Kluiber	443

Electric AB (3)

1	Charles Groth	360
2	Rudy Kluiber	316
3	Jim Jennings	101

C NosGas (8)

1	B. Mattes	959
2	D. Covalt	944
3	Gene Bowers	827
4	K. Fulmer	566
5	G. Wicks	480

1/2A Classic (12)

1	H. Sperzel	900
2	B. Bane	884
3	Roy Stewart	724
4	B. Hanford	600
5	J. Marsh	554

A Gas (5)

1	N. Poti	884
2	B. Hanford	840
3	J. Pailet	672
4	John Seymour	325
5	Bob Placier	94

Classic Towline (7)

1	B. Schlarb	460
2	Guy Scott	411
3	J. Pailet	319
4	J. Seymour	99
5	Lee Campbell	261

Mulvihill (4)

1	E. Konefes	1020
2	Walt Tomasch	540
3	C. Markos	536
4	P. Masterman	420

1/2A Fubar (2)

1	R. Kluiber	326
2	E. Jordan	204

D Gas (3)

1	J. Marsh	767
2	H. Sperzel	360
3	B. Watson	218

P-30 (3)

1	C. Markos	360
2	RP Hanford	322
3	P. Masterman	203

Jr. P-30 (1)

1	Kyle Steinbach	138

OHLG (8)

1	Bill Reuter	217
2	B. Schlarb	177
3	Bob Larsh	160
4	RP Hanford	93
5	Jason Poti	90

Jr. OHLG (1)

1	K. Steinbach	55

Jr. Catapult (1)

1	Zachary Seymour	28

Lil Dip/Ghost/Jetstream (4)

1	L. Campbell	360
2	R. Kluiber	259
3	B. Reuter	173
4	E. Jordan	79

Jimmie Allen (1)

1	E. Konefes	360

C Gas (3)

1	B. Hanford	750
2	J. Marsh	692
3	H. Sperzel	343

Catapult Glider (10)

1	Ralph Schlarb	403
2	B. Reuter	358
3	C. Markos	304
4	B.Schlarb	264
5	JBM Griner	208

1/2A NosGas (9)

1	G. Wicks	600
2	R. Kluiber	452
3	K. Fulmer	450
4	B. Bame	332
5	H. Sperzel	285

B NosGas (10)

1	D. Covalt	1440
2	C. Harper	705
3	K. Fulmer	696
4	L. Campbell	558
5	Dan Harshman	558

AB Classic (10)

1	J. Marsh	1550
2	B. Mattes	1020
3	B. Bane	667
4	D. Covalt	362
5	B. Watson	360

Nos Rubber (4)

1	P. Masterman	780
2	RP Hanford	687
3	E. Konefes	436
4	R. Stewart	161

Howlin Engines Steve Frazier Perpetual award for high time in1/2A Gas, Gil Morris.
Bob Larsh Award for high time by a Junior or Senior in OHLG, Kyle Steinbach.

Thanks to everyone who came, flew, and enjoyed this beautiful September weekend!

Phil Sullivan, Betty and Moe Whittemore, Gilbert Robbins, and the entire CIA Family

HI-POINT GAS
Best 6 events

Place	Contestant	1/2 A	A	B	C	D	1/4 A	1/2 A N	A N	B N	C N	Fub	1/2 AC	AB Cl	CD Cl	PW30	Total	6 Events
1	Jack Marsh	4			3	5							3	8	1		24	24
2	Dick Covalt								3	8	5			3			19	19
3	Brad Bane							2					7	4	5		18	18
4	Hank Sperzel			3	1	3		1					9				17	17
5	Rudy Kluiber						5	5				5	1				16	16
6	Bob Mattes										7			6	3		16	16
7	Bob Hanford	1	3		5								4	1			14	14
8	Keith Fulmer						3	3		4	2						12	12
9	Charlie Harper								5	6							11	11
10	Norm Poti		5	5													10	10
11	Gene Wicks							7	1	1	1						10	10
12	Gil Morris	6															6	6
13	Bob Watson					1							2	2.5			5.5	
14	Rooy Stewart												5				5	
15	Jean Pailet	2	1														3	
16	Elmer Jordan											3					3	
17	Gene Bowers										3						3	
18	Guy Scott			1													1	
19	Bob Hanford, Elder						1										1	

HI-POINT GLIDER
Best 4 of 6 events

Place	Contestant	HLG	Cl Glid	F1H	CAT	Ghost	TOTAL	Best 4
1	Bill Schlarb	5	6	5	3		19	19
2	Bill Reuter	7			6	1	14	14
3	Ralph Schlarb				8		8	8
4	Jean Pailet		2	3			5	5
5	Rudy Kluiber			1	1	3	5	5
6	Lee Campbell					5	5	5
7	Guy Scott		4				4	4
8	Chuck Markos				4		4	4
9	Bob Larsh	3					3	3
10	Bob Hanford Dad	2					2	2
11	Jason Poti	1					1	1

HI-POINT RUBBER
Best 4 of 5 events

Place	Contestant	Noswk	N-Rub	J. Allen	Moffet	Mulv	P-30	Total	4 Events
1	Ed Konefes	3	1	5	5	5		19	18
2	Bob Hanford, Elder	5	3				3	11	11
3	Chuck Markos				3	1	5	9	9
4	Paul Masterman		5				1	6	6
5	Walt Tomasch					3		3	3

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Gib Robbins

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