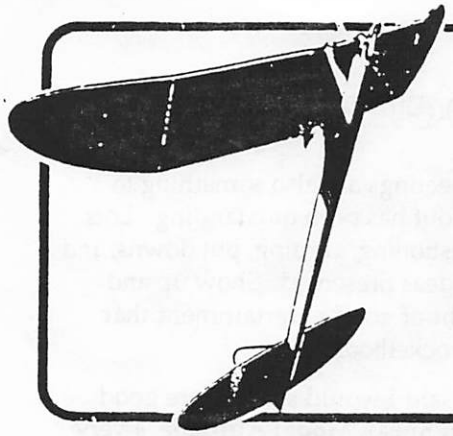


MINNEAPOLIS MODELER

Published six times per year by the Minneapolis Model Aero Club
1101 Highland Ave. - South St Paul MN 55075

• **ESTABLISHED 1937 -- CHARTER No. 379** •

Annual dues: Open..... $15.00 - Senior..... $5.00 - Junior..... Free
Age: (19 & Over) (15 Thru 18) (Under 15)
Newsletter subscription for non members..... $4.00 per year.

President.....	**Don Spehn**	**561-6508**
Secretary.....	**Don Berggren**	**459-6140**
Treasurer.....	**Gary Fessler**	**422-0593**
Editor.....	**Dave Braun**	**457-2264**

Number 238 **May - June 1994**

Future Contests

Site: Hentges Sod Farm

Northeast quadrant of 109th and Hwy 65 - Blaine, Mn.

MAY 22, 1994 SPRING MEET -AA- DON MONSON, C.D. 457-2321

½ A Gas	.020 Replica (12 Sec.)	Embryo Endurance
A Gas	Pee Wee 30	A/1 - A/2 Nordic
BCD Gas	Mulvihill	Hand-Launch Glider
Nostalgia Gas (9 Sec.)	P-30	Junior Event

JUNE 11–12, 1994 TWO DAY MEET C.D.'s GARY OAKINS 429-3150
DAVE BRAUN 457-2264

Saturday Mini FAI Meet -A-

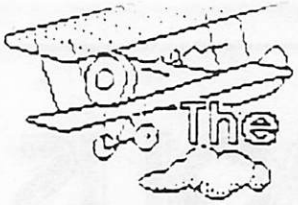
½ A Gas	P-30	A/1 Nordic	Hand-Launch Glider

(Will be flown in 5 one-hour rounds, starting at 10:00 AM)
PICNIC WILL FOLLOW FLYING

Sunday -AA-

A Gas	Mulvihill	A/2 Nordic
BCD Gas	Coupe d'Hiver	Catapult Glider
Nostalgia Gas (9 Sec.)	Embryo Endurance	Junior Event
.020 Replica (12 Sec.)	MMAC Scale	

MMAC Monthly Meetings **are held the first Friday of each month at the Donaldson Co., 1400 W. 94th St., Bloomington at 7:30 pm.** ***It's what's happenin'!***



The Prez Says or Spehn Speaketh:

The prez has been so busy at work he doesn't know what day it is, much less what week or month. Sometimes I still put 1993 down as the date. Darn near plumb forgot about the newsletter, so this is a last minute edition of wisdom, smart talk, bragging and whatever.

First I want to welcome two new club members, Bud Scanlan from Eden Prairie and Phil Vogt from out west St. Paul way. Both are returning modelers after a short hiatus to do things like develop careers, raise families and other endeavors. Hope you guys have as much fun as the rest of us in our second childhood.

Mall Show: have to comment on the "really big show." I was impressed how things fell together so well and at the turnout, considering the shopping center appears to be breathing its last. Again our booth drew 'em in and generated much interest. Special thanks to Aaron Peterson for the club donation from the sale of his famous line of kits.

The indoor season is all but over. I guess it was fun but also very frustrating for the prez. The rubber I have been using went kaput and no matter what I tried from previous batches, I had nothing that could match the times I was getting last year and earlier this year. Tried the new TAN II and things got worse. Woe is me. Ready to chuck it all when lo and behold all of a sudden times started creeping back up at the March contest. Not being a studious record keeper I can't tell you why. I suppose the next time will have me falling flat on my _a _ _ (arm) again.

The prez couldn't stand it and had to go out to the sod farm April 10. He drew first blood of the season by sticking his finger in the prop of his brand new VA .049. I can tell you these Russian engines can cut every bit as good or better than domestic issues. They run pretty good, too. There's nothing like the noise, the odor of castor oil, blood and Band-Aids. Ah, the joy of it all!

Our club meetings are also something to behold! The turnout has been outstanding. Lots of discussion, questioning, arguing, put downs, and even some good ideas presented. Show up and join in. It's a night of good entertainment that won't hurt your pocketbook.

Last time I said I would share more good stuff from Do You Speak Model Airplane, a very good book by Dave Thornburg. World War II curtailed modeling activity, no balsa, no engines, no modelers. Everything went to the war effort. Only one engine was still in production, the GHQ. Over 100,000 in use, few of which ever ran.

The first post war NATS were in Witchita, Kansas in 1946. The pylon model was "in", cabin models "out".

The 1947 NATS were held in good old Minneapolis (actually Monticello) and we again got top press. Only 800 showed up and according to reports this was too many for the site and manpower. People slept in tents and fought ticks, flies, mosquitoes, and heat. Just like today. It was also a year of testing the rules. Dick Korda entered a CO2 powered "Powerhouse" in outdoor rubber. Chet Lanzo threatened to fly a RC job in F.F. and "steer the thing into a thermal." This later resulted in rule changes.

1947 was also the year that revolutionized the model engine industry. Ray Arden developed the glow plug. Almost overnight engines got smaller and lighter and led to the 1/2 A engines. By 1950 the 1/2 A was common and gave F.F. a real shot in the arm.

From then on through 1972 when the U.S. Navy stopped sponsorship, the NATS were where it happened.

Enough of the history, if you want more, buy the book.

Don Spehn

President, MMAC



Meeting Minutes March 4, 1994

Place: Donaldson Co.

Time: 7:55 p.m.

Present: 19 members

Treasure's Report: All bills paid to date.

Clarification of the Electric rules from the January minutes, no more than 3 cells, and no greater than 110mah.

Correspondence: Don Spehn read a letter from Barry Taylor stating that the Canadian Nats Scale judging will be by FAC rules. Barry will be mailing a list of motels. A note from Bill Thomas on the following MECA meets: March 12th Apache plaza, March 26th in Milwaukee and June 11th in Madison. Entry forms for the Canadian Nats are available from prez Don. Don Patterson will be at Northview March 10th to talk about a free flight program. Call Harry Garish about the remaining dates in the dome.

Old Business: Where was everyone for the fun fly - only 10 showed up and couldn't eat all the chili if you want a sample see Hank. Mall show sign-up, set up is March 11th, show opens March 12th at 9:30. Boy Scout Jaboree is on for June 4th more details as we get closer. Trip to Wright Pat AFB starting May 25th, returning May 29th contact Harry Garish for more information. Saints game tickets go on sale May 21st, will book tickets in March for the July 15th game. Floor traffic at the Feb meet resulted in a broken parlor mite, it was suggested that visitors be kepted off the main floor.

New Business Don Spehn suggested that a raffle at the club meetings be tried, Tres and Sec will work on it.
Al Muller brought up the change in engine run vs a change in maxes when heavy winds are blowing, after much discussion it was determined to be the responsibility of the CD to determine flying safty.
Need to line up a bridge repair crew in early May.
Meeting adjourned at 8:50.

Show and Tell Herman Fessler showed us his magazine index file. If you need an article located contact Herm. Clyde displayed his Scratz, engine size 15-25 with a pink and translucent finish. Gary Oakins showed a fool proof dihedral jig and his 1/2A Bump City w/Jorge's timer,Stihls engine and a white tornado prop. Jim Ludwig had a Brig wing and related going to Mora with Greg to work with the Young Eagles. Harry Garish showed off a Don Scrull design with a micro 4 and covered with old world tissue.

Meeting Minutes April 8 1994

Place: Donaldson Co.

Time: 8:05 p.m.

Present: 18 members and 1 guest

Treasure's Report: Starbird and Freebird sales were a success at the mall show.

Correspondence: NFFS requested a donation for the '94 Symposium report. Jack O'Leary made a motion to give a donation for the report. Jack also acknowledged Aaron for his work at the Mall show. SAM FF champs are being held May 14-15th. Barry Taylor sent a packet on campground facilities for the Canadian Nats.

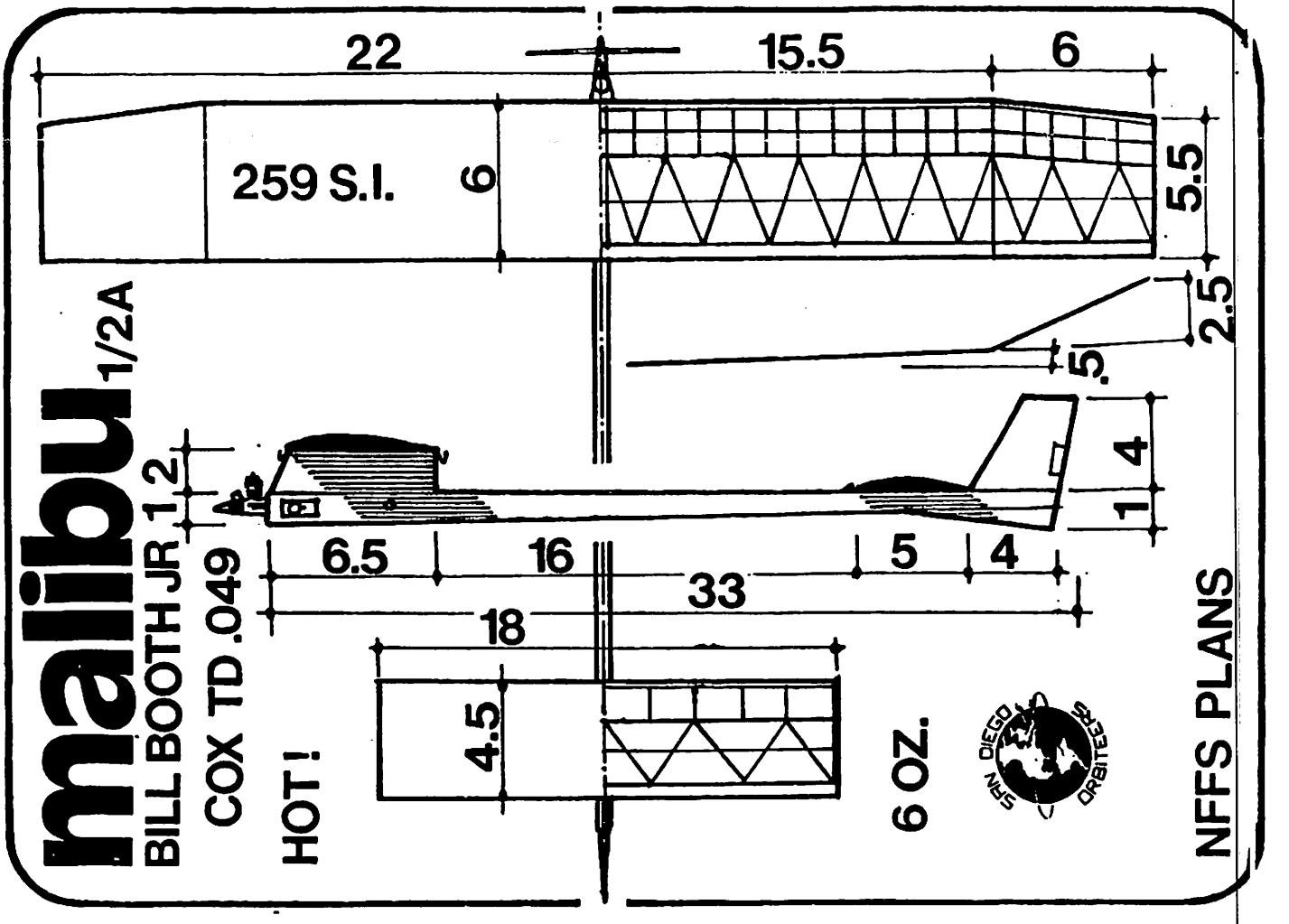
Old Business: The Mall show at Apache was a success but, the real reward was to see Aaron Petersen receive the Distinguished Service Award from the AMA for his involvement in youth programs. One date has been set for flying in the Metro Dome, April 26th @ 4:00pm. Don Patterson, Hank Lilequist, Bob Woodhouse, Jack O'Leary and Jim Ludwig took part in a building program at Brooklyn Park school, and took the group to the dome. A follow up session to build Firebirds is in the planning. Boy Scout Jamboree at Camp Ripley is a go, but the indoor facilities is out. Saints game still on for July 15th. Mpls Loons are a new class A ballclub in the milltown starting this summer, check it out. Raffle at each meeting will have 1 item each month, and 1 member will be asked to donate an item. Motion was made to postpone the bridge work till the May meeting.

New Business Hank and Aaron gave a overview of the Young Eagles program to give 1 million kids an airplane ride by 2003. The program needs to promote the building of model airplanes. Jim Ludwig mentioned the EAA young kids magazine. EAA will have a 2day fly in on May 21-22nd, there is a need to help trim and fly the Quick Bird kit. Mike Spiess will be working with the kids in the Mankato area this summer, anyone interested contact Mike. Motion made by Don Paterson and seconded to set up July 24th for a youth transition from the Freebird and Starbird kits to all types of competition airplanes. Gary Fessler will make up flyers and certificates to be give out. Kits will be furnished. Forrest Price from the Science Museum of MN builds physical exhibts for the museum. He is currently working on simulating flight characteristics of birds of prey. Forrest is looking for ideas and will be at the April 10th meet. Must go to see his exhibit. Al Muller made a motion that we follow AMA NOS gas rules, seconded. Discussion followed and the motion passed. Aaron Petersen is in the process of converting

an RC to FF more to come. Motion made by Norm Janzen to send subscriptions of Model Aviation to the schools that are participating in the current building programs. Meeting adjourned at 9:15.

Show and Tell Gary Oakins has a new Pilfered Pearl 23oz 520sq power comes from a K@B .19 color is red and yellow. See Clyde for his wing building tricks, he displayed a wing for his Scratz. Don Spehn had a .020 rep Strato Streak, weighs in at 4-1/4oz color is black and yellow with red tips. Jim Ludwig demonstrated his Red Baron project, keep looking for Jim's project in your frozen food section.

There's always time and room for another 1/2 A



Indoor Contest Results - March 20, 1994

Walnut Scale (6)

	Plane	Scale Score	Flight	Total
1. Aaron Petersen	Brown B-2	58	80.2	138.2
2. Jorge Triana	Miss Grand Rapids	57	72.9	129.9
3. Henry Liljequist	Piper Vagabond	53	53.1	106.1
4. Jim Anderson	Ord-Hume	52	37.2	89.2
5. Don Spehn	Stinson	50	18.4	68.4
6. Dave Braun	Skyfarer	48	17.5	65.5

Peanut Scale (4)

1. Aaron Petersen	Ord-Hume	54	52.9	106.9
2. Don Berggren	Ganagobie	55	46.2	101.2
3. Henry Liljequist	Fike	53	47.4	100.4
4. Jim Anderson	Fike	57	20.5	77.5

Bostonian (10)

1. Aaron Petersen	85.3
2. Jorge Triana	84.7
3. Don Spehn	80.9
4. Pete Owen	78.0
5. John O'Leary	76.2
6. Jim Anderson	70.6
7. Henry Liljequist	62.0
8. Dave Braun	56.2
9. Dell Marchant	48.5
10. Terry Taylor	43.3

No-Cal Scale (8)

1. Aaron Petersen	159.0
2. John O'Leary	153.1
3. Dave Braun	130.0
4. Jim Anderson	106.8
5. Don Berggren	104.0
6. Terry Taylor	57.9
7. Don Spehn	42.8
8. Henry Liljequist	13.1

EZB (6)

1. Jorge Triana	5:35
2. Bob Oppegard	5:08
3. Henry Liljequist	3:33
4. Jim Jorgensen	3:23
5. Pete Owen	2:41
6. Aaron Petersen	2:12

Penny Plane (5)

1. Jorge Triana	5:31
2. Bob Oppegard	4:38
3. Jim Jorgensen	3:47
4. Aaron Petersen	2:53
5. Pete Owen	1:04

Mini-Stick (4)

1. Jorge Triana	4:30
2. Dave Braun	3:19
3. Pete Owen	2:48
4. Aaron Petersen	2:18

HLG (4)

1. Gary Crawford	56.2
2. Dave Braun	49.3
3. Don Spehn	43.7
4. Dell Marchant	42.5

Junior Rubber (1)

1. Erick Sears	4:51

Daily High Point Award to Aaron Petersen with 40 Points

Indoor Contest Results - April 17, 1994

Walnut Scale (6)

	Plane	Scale Score	Flight	Total
1. Aaron Petersen	Brown B-2	58	85.3	143.3
2. Jorge Triana	Miss Gr. Rapids	57	53.2	110.2
3. Hank Liljequist	Vagabond	53	41.5	94.5
4. Dave Braun	Skyfarer	48	41.8	89.8
5. Don Spehn	Stinson	50	20.5	70.5
6. Jim Anderson	Puss Moth	59	11.0	70.0

Peanut Scale (5)

1. Aaron Petersen	Ord-Hume	54	67.8	121.8
2. Jorge Triana	Monocoupe	50	60.5	110.5
3. Hank Liljequist	Fike	53	43.0	96.0
4. Don Berggren	Ganagobie	55	33.9	88.9
5. Jim Anderson	Fike	57	15.6	72.6

Bostonian (10)

1. Jorge Triana	100.8
2. Don Spehn	90.5
3. Mike Spiess	82.4
4. Aaron Petersen	82.0
5. Jim Anderson	66.4
6. Terry Taylor	58.7
7. Dell Marchant	53.0
8. Dave Braun	45.9
9. Hank Liljequist	31.4
10. John O'Leary	17.4

EZB (5)

1. Hank Liljequist	5:00
2. Aaron Petersen	4:21
3. Jorge Triana	3:57
4. Mike Spiess	2:31
5. Jim Jorgensen	2:20

Penny Plane (3)

1. Jorge Triana	8:06
2. Jim Jorgensen	4:07
3. Aaron Petersen	3:09

Catapult Glider (6)

1. Gary Crawford	44.6
2. Dave Braun	33.5
3. Dell Marchant	33.4
4. Mike Spiess	28.1
5. Don Spehn	26.1
6. Terry Taylor	23.3

Hand Launch Glider (4)

1. Gary Crawford	54.2
2. Dave Braun	46.8
3. Don Spehn	43.3
4. Dell Marchant	38.1

No-Cal Scale (9)

1. Aaron Petersen	151.4
2. Dave Braun	137.8
3. John O'Leary	129.1
4. Hank Liljequist	122.3
5. Don Berggren	107.3
6. Jim Anderson	103.8
7. Don Spehn	85.6
8. Terry Taylor	46.0
9. Mike Spiess	14.7

Daily High Point Award to Aaron Petersen with 38 Points

Indoor Points Totals '93 - '94

1.	Aaron Petersen	191
2.	Jorge Triana	147
3.	Dave Braun	106
4.	Hank Liljequist	82
5.	Don Spehn	76
6.	Jim Anderson	57
7.	Gary Crawford	49
8.	Pete Owen	46
9.	John O'Leary	39
10.	Don Berggren	29
11.	Terry Taylor	25
	Mike Spiess	25
13.	Dell Marchant	24
14.	Bob Oppegard	15
15.	Jim Jorgensen	9
16.	Gary Oakins	4
17.	Dale Mendenhall	2
18.	Garrett Crawford	1
	Jack Hanson	1
	Harold Wachtler	1

Juniors

1.	Erick Sears	4
2.	Jackson Hanson	3
3.	Cody Spiess	3

This concludes the Indoor portion of the MMAC season. Congratulations to Aaron Petersen who finished the campaign with a remarkable total of 191 points.

He will be honored with the presentation of the MMAC Indoor High Point Trophy and dinner at home.



MMAC Indoor High Times through 4/17/94

Peanut Scale	Aaron Petersen	121.8	(Scale plus flight)
Walnut Scale	Aaron Petersen	143.3	(Scale plus flight)
No-Cal Scale	Aaron Petersen	159.0	(Flight Only)
Bostonian	Jorge Triana	100.8	
Phantom Flash	Aaron Petersen	148.6	
Penny Plane	Bob Oppegard	8:09	
EZB	Jorge Triana	8:25	
Parlor Mite	Jorge Triana	5:05	
Mini-Stick	Jorge Triana	4:30	
HLG	Gary Crawford	56.7	(Two flights)
Jr. HLG	Tim Edmonson	28.0	(Two flights)
Catapult Glider	Gary Crawford	44.6	(Two flights)
Junior Rubber	Erick Sears	4:51	

Those of you out there in free flight land who wish to compare your scores with those of the worthy members of the MMAC should know a few things about our flying site and local rules. We fly in the gym of the Mpls. Junior Academy which has a ceiling height of 21 feet. The ceiling is tiled with recessed lighting; no beams, trusses, scoreboards, or other model-snaggers. A very user-friendly site. (A hint to those clubs looking for an indoor site: Try parochial and private schools. You will generally run into someone who can make a decision without passing you off to 20 others who can't or won't. Throw in the possibility of a youth program or demonstration and you might be pleasantly surprised.)

We fly peanut scale and walnut scale to modified FAC rules with 62 max scale points. No-Cal has a 6.2 gram weight minimum and a 16" span max. We fly 14 gram minimum Bostonians and eschew (Gesundheit - ed.) charisma points; flying mallards, dog houses, and anything speckled need not apply. Parlor mite and Mini-Stick are flown to rules published by the NFFS (too numerous to mention here), and Junior Rubber is flown as an "open" event; any type of plane is eligible. Catapult glider has a 10" max span. The balance of our events follow AMA guidelines.

A Visitor for Aaron







I love rubber sport models in the 24-inch range, most notably the Flying Aces Moth, the Island Flyer, etc. It occurred to me one day: if your Bostonian is a good flier at 16 inches, wouldn't it be an even better flier at 24 inches? Well, of course! So right away I sat down and drafted a set of specs, maybe even with an eye to an outdoor contest event someday. Then I built one, blew up Walt Mooney's Hyannis Helio 1.5 times. (Took it to KINKO's, told them what I wanted, and got it in two minutes for about $1.35 or so.) Made the necessary tweaks on the plan to keep it "legal." Came out at 52 grams, less rubber, with ballast, no special effort. Mostly 3/32 square sticks, 1/16 ribs, etc. So 50 grams seems right as a minimum weight, fits the formulas, too. Took it to the sod farm, loaded it with a 4-strand 3/16 TAN II motor 30 inches long, braided. In cool air at sundown, got 1:55! This is just <u>super</u> for a model with this wing loading, with a fat body, wheels, and free-wheel plastic prop. I still can hardly believe it. (As to the TAN II, see below.) Try a 1.5X. You'll love it! — *A.P.*

OUTDOOR 1.5X BOSTONIAN

FAC event?

1. Maximum Wing Chord = 4.5"
2. Maximum Projected Wingspan = 24"
3. Maximum Wing Area = 108 sq. in.
4. "Cargo Box" = 2.25" X 3.75" X 4.5" (Minimum dimensions)
5. Windshield Areas = 2.25 sq. in. forward, 2.25 sq. in./side (mir
6. Propeller = 9" maximum diameter, free-wheel only
7. Minimum Weight = 50 grams (less rubber motor)
8. Maximum Length (Front of nose button to rearmost pt.) = 21"
9. Rubber Power, Stick and Tissue construction.
10. Fixed Functional Landing Gear, with at least 2 rotating wheels 1.125" diameter or larger.
11. ROG when possible, hand launch when not.
12. No lifting airfoil on the stabilizer.
13. Dethermalizer OK (and recommended).
14. Motor braiding OK, motor tensioning not OK.
15. No adjusting tabs may extend beyond legal dimensions.
16. Flight Rules: Unlimited attempts for 3 official flights. An attempt is 20 seconds or more. Two-minute max. Score is total of 3 official flights. Flyoffs: Increase max time by 30 seconds for each round. All flyoff flights are official.
17. For Biplanes: Pro-rate by factor of 1.5, following regular Bostonian rule provisions.

Notes: A plastic P-30 prop may be cut down to 9" and bent open to a higher pitch if desired. A motor weight of 15 grams would seem a good starting point. Some sample sizes:

2 loops X 3/16 X 30"
2 loops X 1/4" X 23"
2 loops X 5/32" X 36"

FAI TAN II

1 loop X 3/16" X 26" <u>PLUS</u> 1 loop X 1/4" X 26"

<u>TAN II - The Next Generation and a New World</u> by Aaron Petersen

Except for Leon Bennett's fine article in the FAC Newsletter, haven't seen much yet in the FF model press about TAN II. My suspicion is that a lot of the experts sense that TAN II is Huge step forward, but they are afraid maybe they just got a red hot batch and that the rest may not turn out to be so hot and if they praise it to the skies and it turns out to be flat they'll end up with egg on red faces. Maybe they don't <u>want</u> to spread the word. Whatever. I'll be careful, too: based on what I've seen <u>so far</u>, TAN II is the biggest news to hit free flight in maybe 30 years. To hit me, anyhow. Examples: My Phantom Flash time with TAN II jumped from 2:01 to 2:27 -- 21.5%. My Hughes Racer No-Cal time jumped from 2:06 to 2:39 -- 26.2%. I have a Comet Piper Cub that does about 70 sec. in the Metrodome with TAN I. Took it to the park one cool evening and got TAN II flights of 82, 85, 90 seconds -- max. jump of 28.6% In no case have I seen a degradation of performance. The stuff really stretches, and you can get 20-25% more turns into it vs. TAN I. Its strength is a <u>long</u> cruise mode. You may have to shorten some motors (and widen them) by about 15%, especially indoors. TAN II seems very durable. As with TAN I, break it in and <u>wind it to the max</u>! Two words come to mind: buy, and hoard. Eh?

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Bloomington, Mn.
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All my men wear MMAC Club Jackets, or they wear nothing at all