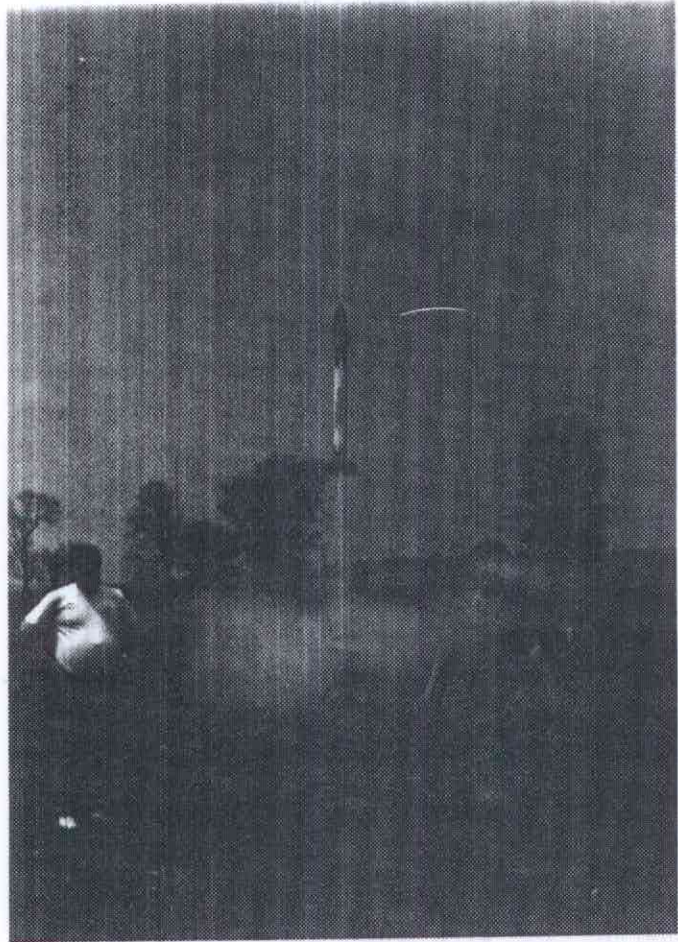


COUNTDOWN

OFFICIAL NEWSLETTER OF
THE SOUTHERN PENNSYLVANIA AREA ASSOCIATION OF ROCKETRY

MAY/JUNE 1992 VOLUME 5, ISSUE 3

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SPAARSEC-VI SECTION MEET

SPORT LAUNCH COVERAGE

** Plus **

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The COUNTDOWN
Volume 5, Issue 3
May/June 1992

The Countdown is the newsletter of SPAAR, the Southern Pennsylvania Area Association of Rocketry, NAR Section #503, PO Box 127, Reamstown, PA 17567
Non-member subscription rate, \$6.00 per year, six issues. Contents may be used with proper credit. Please make all submissions in English or Klingon.

Cover Logo: Bob Stott Wrapper: Bruce Canino Editor: George Beaver
Contributors: Roger Dwyer, Ed Miller, Glenn Feveryear (Thanks Guys!!)
Thanks also to Bob Sanford (Aerotech) and Mike Hellmund (Estes)

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Note - This issue's Sport Plan, The Infinite Square, is used here courtesy of Lawrence Bercini and American Spacemodeling. Submitted by Roger Dwyer.
Our thanks to Lawrence!

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NARAM 34 AND NATIONAL SPORT LAUNCH WILL BE HELD IN NEARBY LAS VEGAS.

SPORT LAUNCH:

AUGUST 1 & 2, 1992

NARAM:

AUGUST 2 - 7, 1992

NARAM HQ:

Gold Coast Hotel/Casino
\$35.00 per room, per night
Sunday thru Thursday;
\$50.00 per room, per night
Friday & Saturday. No
Saturday check-in/out

RESERVATIONS:

Matlock Travel (800) 336-0666

EVENTS: (A-C Divisions)

1/4A RG; 1/2A BG; A PD; B SD;

C EGGLOFT ALT.; D FLEX BG;

E SUPERROC ALT.;

(C Division Only): F HD; G RG

(R/C Okay); R&D; PMC; SUPER-

SCALE.

(A & B Division only): C RG;

D HD; SCALE

SCHEDULE

June 13, 14: WUBBA-15 Regional, Centre Valley.
Events: B HD(M), 1/2A RG(M), 1/4A PD(M), 1/2A FW(M),
E SRD, FAI S6A (A SD M).

June 13, 14: Central Virginia/Tripoli #25
High Power Launch, Culpeper, VA. FAA Waiver.
For info, call: Ed Miller, (717) 865-6829.

June 15 (Monday): Section Meeting, 7-9PM,
Lancaster County Public Library.

June 21 (Sunday): SPAAR Sport Launch, 3-7PM,
Cocalico HS, Denver. NOTE - Patriot & SCUD Day.

July 19 (Sunday): SPAAR Sport Launch, 3-7PM,
Cocalico HS, Denver. NOTE - Manned Space
Vehicle Day, altitude tracking available.

July 20 (Monday) Section Meeting, 7-9PM,
Lancaster Public Library.

NOTE: SPAAR has been requested to do a demo
in conjunction with Hobby World R/C, sometime
in late June or in July. Date and time to be
determined. For more info, call George Beaver
(717) 733-4170.

FOR NARAM: Call BOB SANFORD, (702) 452-1796,
after 10:30 EST.

EDITORIAL

Much has already been said and written concerning the recent problems that arose in early April at a meeting of the National Fire Protection Association Committee of the NAR. The committee had met to consider the reloadable motor technology developed and being marketed by ISP/Aerotech. What happened next is something that I am not going to get into in this column. Within a couple of weeks of this meeting, we had received a copy of Apogee, the newsletter of the Miami Valley Rocket Society (MIVARS), edited by Fred Williams. This newsletter has about as clear of an explanation as I have seen regarding the events that transpired during the weekend of April 6-8. I have made copies available to all SPAAR members who want one; if anyone wants a copy, please let me know. Our hats go off to Fred and the members of MIVARS who put together this report so quickly.

Not intending to belabor the point, if and when this mess gets straightened out, all of us who enjoy the various facets of our hobby, whether it be sport, competition, or high power, will owe a debt of gratitude to people like J. Pat Miller and Tripoli president Chuck Rogers. I cannot even imagine the number of "volunteer" hours it will take in dealing with a number of Federal agencies, most of whose employees know nothing of rocketry as a hobby.

On to more happy things.....

On May 3, SPAAR reached a milestone of sorts. After 4 years and a couple of false starts, we hosted a succesful Open Meet, SPAMO-1. Our guests were all members of GSSS, the Garden State Spacemodeling Society. From what we have heard, they enjoyed their day of flying, even if the weather did not cooperate 100%. At the risk of sounding like a mutual admiration society, it says here that the credit for this success goes for the most part to four people: Glenn Feveryear, John Yost, Ed Miller, and Art Babiarz.

The reasons that Glenn deserves credit are somewhat obvious. He's been our Competition Committee chairman since January 1989, in fact since the post was created. Since that time, he's put together a very succesful series of Section Meets (SPAARSEC), which are held each Memorial and Labor Day weekends. Organizing an NAR contest is more involved than simply saying "let's have a contest", as I'm certain Glenn will tell you.

As for John, Ed, and Art, their contribution may not be as obvious, but is certainly as important. Figure this one out: John has flown NAR competition as long as, if not longer than anyone else in SPAAR; Ed likes big honkin' rockets, but does very well for himself in competition, witness the fact that he took the most points in SPAARSEC-III. And Art, well, he knows what it's all about, and one of these days we'll talk him into flying a contest. With all of that in mind, these three gentlemen, between them, flew one flight on May 3, the date of SPAMO-1. This flight netted no points whatsoever, because it was a sport flight by Ed Miller. One flight; no points. So why do they deserve credit? Because, between the three of them, almost all of the range duties, from Range Safety, to Safety Check-in, to timing, were done by these guys. When Art was timing, Ed was helping an A divisioner put a model on the rod, and John was Launch Control Officer. It went like that all day, from 9AM until 5PM. In doing this, they freed up those of us who were flying (or, in my case, trying to fly). I am certain that all NAR clubs have folks like these; without them, I'm equally certain that the clubs will fall apart. They did it because this was a club activity, whether they were flying or not. Thanks guys! We'll return the favor!



SECTION MEETINGS

APRIL 20, 1992

Present: Glenn Feveryear, Art Babiarz, Dale Greene, Roger Dwyer, Ed Miller, Rick Hackman, George Beever.

I. Treasurer: Ed Miller reported that there were 42 paid members; the balance at the end of the last meeting was \$212.36. Since that time, incomes were \$25.00 in dues, \$6 in newsletter subscriptions, and \$6 for patches; disbursements included \$27.60 for postage. Current balance is \$221.76.

II. Newsletter: G. Beever reported that 54 copies of the March/April Countdown were distributed to members, subscribers, and other sections.

III. Competition: Glenn Feveryear discussed the upcoming Open Meet, SPAMO-1; the rain date will be May 3. Also:

- The NARTS order was received after a call to the NAR's "800" number.
- Reminded those present that SPAARSEC-VI will be on May 24, Memorial Day Weekend.
- "Cluster Day" will be on May 10.
- Discussed plans for SPAARSEC-VII.

IV. Section Advisor: G. Beever discussed the NFPA situation.

V. High Power: Ed Miller discussed the Tripoli launch held April 11/12 in Culpeper, VA.

- Invited members to NORLEBCO H.S. on Monday, May 25, at 8AM for a launch.
- Announced that the next Tripoli launch in this area will be in Culpeper over the weekend of June 13/14.

VI. Education: Art Babiarz asked for help in finishing the new club launch system.

- Various ideas for next winter's workshop series were discussed, including building "Flying Saucer" models, a kitbash, and a scale project. Please communicate your ideas to Art.

General discussion followed, and the meeting adjourned at 8:45PM.

MAY 18, 1992

Present: Glenn & Rita Feveryear, Gary Feveryear, D. Greene, R. Dwyer, B. Rhoat, D. Rhoat, P. Boyle, E. Miller, J. Yost, G. Beever.

I. Treasurer: Ed Miller reported that there are 42 paid members; the current balance is \$234.26; this reflected an income of \$12.50 in dues.

II. Newsletter: G. Beever stated that the May/June Countdown would be out...well, whenever.

III. High Power: Ed Miller discussed the May 10 Falcon flights. All were successful. Also:

- Reminded the members of the May 25 launch at Northern Lebanon High School, at 8AM.
- Tripoli/Virginia is hosting an HPR launch in Culpeper, VA., on June 13/14. Roger Dwyer wanted to leave right away. There will be a 35,000' FAA waiver.

IV: Education: No report.

V. Competition: Glenn Feveryear reported on the results of the SPAMO-1 Open as well as the Return Of Fly High meet in New Jersey.

- WUBBA-15 will be held the weekend of June 13 & 14.
- The tracking results from May 10 were good, with a 5% closure rate.
- The SPAARSEC-VI Section Meet will be May 24.
- Passed around groups of choices of events for the SPAARSEC-VII meet, August 30.

VI. Section Advisor: G. Beever proposed a \$25 donation to the WSMC fund. A motion to that effect was made by John Yost, seconded by Rita Feveryear; the motion was passed by voice vote. Also:

- The club Sport launch originally scheduled for June 14 will be moved to June 21. The motion was made by Rita Feveryear, seconded by G. Beever. Passed by voice vote.

Gen'l discussion centered on a proposed demo in July, and the proposed Pink Book revisions. the meeting adjourned at 8:50PM.

SPAMO-1 OPEN MEET

After a postponment due to weather problems, SPAAR held the SPAMO-1 Open Meet on Sunday, May 3 at Cocalico. Our guests that day were Tom Whymark and the GSSS A Division crew. The scheduled events were C Helicopter, $\frac{1}{4}$ A Streamer Multi, $\frac{1}{4}$ A RG, $\frac{1}{4}$ A BG, B Egg-loft Duration, and A Superroc Duration. The day was clear and sunny, but the stiff breeze (read that "wind") caused Contest Director Glenn Feveryear to invoke the "one flight per event" rule, with the exception of $\frac{1}{4}$ A SD Multi. The three required flights would have to be attempted in that event.

SPAAR had no A Divisioners to go up against those from Garden State, but even if we did, they would have had their hands full. These young flyers are, for the most part, contest veterans. It showed, too. Matthew Whymark had the most total points in A Division, with 652. He took first in $\frac{1}{4}$ A SDM with 2 qualified flights totaling 32s; first in $\frac{1}{4}$ A RG; first in $\frac{1}{4}$ A BG; third in C HD; third in B ELD; and second in A SRD. Not bad! Brother Jason had 396 total points, comprising a first in C HD (40s), second in $\frac{1}{4}$ A SDM, third in $\frac{1}{4}$ A RG, and second in B ELD. Maureen Musarra showed that the ladies know what they are doing, too, with a second in C HD, a third in $\frac{1}{4}$ A RG, and a first place in B ELD with 18s. This gave her a total for the day of 366 points. Matthew and Jason's sister Erin went home with 208 total points, the highlight of which was a first place in A Superroc. Maureen Musarra's brother John took second in $\frac{1}{4}$ A BG and third in A SRD, on his way to 136 points. Andrew Snook, flying his first contest, qualified in $\frac{1}{4}$ A SDM and B Eggloft, totaling 42 points.

After the performance of the younger GSSS members, Tom Whymark showed that he was no slouch (not that we thought he was, of course. But, you know what they say about newsletter editors....)

Tom Took the most points of anyone, in any division, with 680 total points.

Tom took C HD with an 82s flight that was as amazing for it's recovery as it was for it's duration. The wind carried the model towards the "soy bean field of no return", but Tom found it regardless. George Beever flew a Tom Whymark-designed Romulan Revolver, losing it in the aforementioned soy beans. Glenn's Rotaroc flew straight up, and the same way straight down without deploying it's rotors. It landed on the school roof, so it could not be returned to determine if the ejection charge had failed to go off, as suspected.

SPAAR's Gary Feveryear took $\frac{1}{4}$ A SDM with 3 solid flights totaling 89s, including 1 42s max. George took 2nd at 72s, Glenn 3rd with 65s, and Tom 4th with 28s, despite one DQ/SEP.

In $\frac{1}{4}$ A RG, as well as $\frac{1}{4}$ A BG, it was really a matter of survival; the winds were not kind to the little $\frac{1}{4}$ A gliders. Tom found a novel way to deal with it; he flew the same model for both events. After all, it says that in BG, the motor may separate; it doesn't have to. He used a QCR slide-winger for both. A first in RG and a second in BG resulted. Glenn took first in $\frac{1}{4}$ A BG, with a design that ejects it's motor (with streamer attached, of course). Despite the wind, the model turned in a 26s performance.

Glenn came back and took first in B Eggloft, with 34 seconds, George second with 24s, and Tom third with 11s. The trick here appeared to be a very quick recovery by the flyer. In other words, be around the landing spot in a hurry, so that the wind doesn't drag your egg all over the place!

In A SRD, streamers became the recovery device of choice, due to the wind. As the saying goes, what comes around, goes around. I had first seen this Superroc/streamer combo in a meet in Jersey in '89. Tom took first with 316 points total.

SOUTHERN PENNSYLVANIA AREA ASSOCIATION OF ROCKETRY
SECTION 503
SPAMO-1 RESULTS

C HD (sec)	FLHT1	FINAL	PLACE	POINTS	
A DIVISION					
Jason Whymark	39.53	40	1	220	
Maureen Musarra	33.39	33	2	132	
Matthew Whymark	19.0	19	3	88	
Erin Whymark	DQ/EJ	-	-	-	
John Musarra	DQ/NDP	-	-	-	
C DIVISION					
Tom Whymark	81.72	82	1	220	
George Beever	72.5/NR	-	FP	22	
Glenn Feveryear	DQ/NDP	-	-	-	
1/4A SD MULTI (sec)	FLHT1	FLHT2	FLHT3	FINAL PLACE	POINTS
A DIVISION					
Matthew Whymark	DQ/SEP	16.37	15.23	32 1	100
Jason Whymark	CATO	20.00	7.49	28 2	60
Andrew Snook	DQ/UNS	DQ/SEP	DQ/SEP	- -	-
C DIVISION					
Gary Feveryear	29.03	29.84	41.99	89 1	100
George Beever	19.24	35.00	22.35	72 2	60
Glenn Feveryear	19.90	15.00	29.60	65 3	40
Tom Whymark	DQ/SEP	14.90	12.73	28 4	20
1/4A RG (sec)	FLHT1	FINAL	PLACE	POINTS	
A DIVISION					
Matthew Whymark	5.15	5	1	180	
Erin Whymark	3.60	4	2	108	
Jason Whymark	DQ/NG	-	-	-	
C DIVISION					
Tom Whymark	15.05	15	1	180	
George Beever	10.36	10	2	108	
1/4A BG (sec)	FLHT1	FINAL	PLACE	POINTS	
A DIVISION					
Matthew Whymark	16.44	16	1	160	
John Musarra	13.27	13	2	96	
Maureen Musarra	5.59	6	3	64	
Erin Whymark	DQ/NG	-	-	-	
Jason Whymark	DQ/SEP	-	-	-	
C DIVISION					
Glenn Feveryear	25.89	26	1	160	
Tom Whymark	17.70	18	2	96	
Gary Feveryear	DQ/SEP	-	-	-	
George Beever	DQ/NG	-	-	-	
B ELD (sec)	FLHT1	FINAL	PLACE	POINTS	
A DIVISION					
Maureen Musarra	17.88	18	1	160	
Jason Whymark	12.50	13	2	96	
Matthew Whymark	7.65	8	3	64	
Andrew Snook	5.60	6	4	32	
Erin Whymark	DQ/BRK	-	-	-	
John Musarra	DQ/NDP	-	-	-	
C DIVISION					
Glenn Feveryear	33.70	34	1	160	
George Beever	24.13	24	2	96	
Tom Whymark	11.30	11	3	64	

SPAMO-1 RESULTS cont'd:

A SRD (pts)	LENGTH	FLHT1	FINAL	PLACE	POINTS
A DIVISION					
Erin Whymark	150.0	11.30	311	1	100
Matthew Whymark	149.5	11.20	310	2	60
John Musarra	150.0	6.18	306	3	40
Jason Whymark	150.0	4.50	305	4	20
Andrew Snook	148.5	6.66	304	5	10
Maureen Musarra	100.0	29.75	229	6	10
C DIVISION					
Tom Whymark	150.0	16.00	316	1	100
George Beever	145.0	15.34	305	2	60
Glenn Feveryear	100.0	33.58	234	3	40
Gary Feveryear	144.0	36.63	324	DQ/SEP -	-

FINAL POINTS

A DIVISION	POINTS
Matthew Whymark	652
Jason Whymark	396
Maureen Musarra	366
Erin Whymark	208
John Musarra	136
Andrew Snook	42

SECTION POINTS

GSSS	2480
SPAAR	846

C DIVISION	POINTS
Tom Whymark	680
Glenn Feveryear	400
George Beever	346
Gary Feveryear	100

It should be noted that, in spite of the high winds, the A Superrocs in both divisions flew relatively straight; there were no loopy-loops to speak of.

More importantly, we must mention the fact that the Garden State A Division people conducted themselves extremely well, and were very polite. We are happy that they were our guests, and hope they come back

again for another meet. Of course, we hope that we have some A Division people of our own to provide some competition.

And to Tom, who rode herd on this bunch during what had to have been a long day: next time, leave your winning models at home, will ya? Yeeesh. See you at WUBBA!

SPAAR POINT TOTALS THROUGH 5/27/92:

Glenn Feveryear	1204	Ed Miller	146
George Beever	554	Mark Snyder	98
Dale Greene	345	Dick Rhoat	33
Gary Feveryear	291	Dennis Stauffer	11
John Yost	172		

Total points to Section: 2854

SPAARSEC-VI SECTION MEET

SPAAR's second contest within the month of May was SPAARSEC-VI, our bi-annual Section Meet. The number of entrants was down from last September's record turnout for SPAARSEC-V, but the meet was a good one just the same. Only four events were scheduled, which meant that the stakes were high for each one. Two of the four events, $\frac{1}{4}$ A Rocket Glide and D Dual Eggloft Altitude, were new to our Section Meet series.

The weather, always a major factor in any contest, was rather, well... weird. May 24 dawned warm and sunny, with virtually no breeze whatsoever. But by around 1PM...

The first event that most people flew was the D Dual Eggloft Altitude. Five people flew this event, with 8 flights attempted. However, only one flight, Glenn Feveryear's, was successfully tracked without having an egg or two broken. His flight figured out to 293.64 meters for first place. Dale Greene's first flight had a 15% closure rate, outside of the 10% limit; his second flight had a 3% closure rate, but he broke an egg. John Yost had tracks lost on two flights; George Beever had broken eggs flying all over the place, and Ed Miller had a flight tracked to 217.78 meters, but he also cracked up. This event was surprisingly frustrating!

C Helicopter provided it's usual thrills and chills, especially because the wind had started to blow by the time most people got around to flying this event. The temperature dropped about 20 degrees, too. (Can you say "front moving in"?) But before this all happened, however, Ed Miller flew one to 197.7s, a pending US C HD Record. The model, his own design, caught a thermal over a freshly plowed corn field. However, Glenn got in 2 C HD flights which totaled out to 221s, good for first place. Gary Feveryear, John Yost, and George Beever flew QCR Rotarocs to 3rd, 4th, and 5th place finishes, with Dale Greene flying his own design to sixth place at 48 seconds.

$\frac{1}{4}$ A Rocket Glider attracted only three entrants. Dale Greene took first place with two flights good for 27 seconds total. George Beever flew a QCR model on flight one to 16 seconds, and a home-brew on his second flight for 9 seconds. Should have stayed with the Ken Brown model! John Yost converted a small boost/glider to a rocket glider in the same fashion that some of the GSSS people did at SPAMO-1, and qualified at 5 seconds.

Open Spot Landing was last, and provided the most amusing event of the day. George Beever was leading the pack, with a flight that landed 8.9 meters from the section flag that was serving as the spot. The only person who hadn't flown the event was John Yost. Just as the weather started to get really ugly, with the wind picking up and the rain just starting to come down, John flew something that kind of resembled an Estes Alpha from Skid Row...on a $\frac{1}{2}$ A3-2 no less. Up goes the model; down comes the model, with no deployment of it's streamer. Too bad, too, because it looks like it will be darn close to the flag. Poor John. Too bad. Uh-hu. At the very last second, when the model is all of about 2 feet off of the ground,...POP!...out comes the streamer, which all but wraps itself around the flag pole. First place, no question about it! John, of course, says it is luck. Don't you believe him! He planned it that way! It has to be all those years of contest experience. Well, it sounds good, anyway...

Our newest member, Patrick Boyle, also tried his hand at Spot Landing. Patrick is in A Division, and his result cannot be added to the official NAR point totals, but he had fun anyway. Patrick's flight came within 30.7 meters of the spot, good for a club A Division record.

The range closed a bit early, due to rain. However, SPAARSEC-VII is coming up on August 30, and the events should be announced soon. As we've said many times before, a Section Meet is the ideal place to get started in competition.

SOUTHERN PENNSYLVANIA AREA ASSOCIATION OF ROCKETRY
SECTION 503
SPAARSEC-6 RESULTS

C HD (sec)	FLHT1	FLHT2	FINAL	PLACE	POINTS
Glenn Feveryear	99.07	122.20	221	1	110
Ed Miller	197.70*	-	198	2	66
Gary Feveryear	82.11	55.63	138	3	44
John Yost	54.14	62.75	117	4	22
George Beever	DQ/DEP	103.20	103	5	11
Dale Greene	48.44	DQ/SEP	48	6	11

Notes:

Ed Miller: 197.70sec, Pending US Record

D DEL (meters)	FLHT1	FLHT2	FINAL	PLACE	POINTS
Glenn Feveryear	293.64	-	294	1	140
Dale Greene	NC	DQ/EGG	NC	FP	14
John Yost	TL	DQ/EGG	TL	FP	14
George Beever	DQ/EGG	DQ/EGG	DQ	-	-
Ed Miller	DQ/EGG	-	DQ	-	-

Notes:

Glenn Feveryear: FLHT1 293.64, 5%
Dale Greene: FLHT1 226.33, 15%, FLHT2 239.55, 3%
John Yost: FLHT2 TL
George Beever: FLHT1 229.75, 38%, FLHT2 TL
Ed Miller: FLHT1 217.78, 5%

1/4A RG (sec)	FLHT1	FLHT2	FINAL	PLACE	POINTS
Dale Greene	14.37	12.49	27	1	90
George Beever	16.12	9.28	25	2	54
John Yost	5.05	-	5	3	36

OPEN SPOT LANDING (meters)	FINAL	PLACE	POINTS
John Yost	1.9	1	20
George Beever	8.9	2	12
Ed Miller	10.6	3	8
Dale Greene	19.9	4	4
Glenn Feveryear	32.7	5	2
Gary Feveryear	42.1	6	2
Patrick Boyle	30.7	*A Division*	

FINAL POINTS

Glenn Feveryear	252
Dale Greene	119
John Yost	92
George Beever	77
Ed Miller	74
Gary Feveryear	46

SPORT LAUNCH

MAY 3, 1992

Contests weren't the only things being flown during the month of May. While the SPAMO-1 Open was being flown, so were some sport flights.

Our newest member, Patrick Boyle, flew the upper stage of his Estes Magnum on a B6-4 and two C6-5s. All flights were succesful. Ed Miller flew one of his UFOs with an Aerotech E16 reload, also for a nice flight. Garden State's Andrew Snook enjoyed the B Eggloft Duration so much that he made a second attempt as a sport flight.

SPAAR's Rick Hackman showed up with some new sport models, all oldies but goodies. Rick brought out an Estes USS Enterprise Star Trek model. The interesting thing about this one was the fact that it was the original version, not the recently re-released one. Unfortunately, the model hung on the rod. It was, however, rather impressive, and put Rick in the early lead for the '92 Rocket-Lok Award. Rick also flew some Centuri classics, such as the Vector-V, Nova, and Groove Tube. All flew well.

MAY 10, 1992

On Mother's Day, the weather could not have been better. The temps were in the low 80's, with no breeze to speak of. Great flying weather at last! We took advantage of it, too, putting up 35 flights by 9 flyers.

May 10 was set aside as the day that those who had built the THOY Falcon kits during the Winter Workshop series would fly them on G motors, gaining certification in that engine class. Ed Miller, John Yost, Fred Hoke, and George Beever made their flights. Unfortunately, Dale Greene had to work and was not there. All flights were made with the Aerotech G80-4T Blue Thunder motors, and all were succesful.

Prior to his Falcon flight, John Yost finally got the chance to fly his new Aerotech Mustang, on an E30. A perfect

flight.

It was also "Cluster Day". Only 7 out of a total of 35 flights were made with cluster powered models. Ed Miller flew his Armacron III on 3 B8-5s. He also launched his famous Magnum Wizard on 3 D12s. Unfortunately, one of the D12s CATO'd, causing severe damage. Ed vowed to build a better, stronger version to carry on the tradition of the "big Wiz".

Glenn Feveryear contributed his Ranger on 3 B4-4s; and George Beever flew his Landviper (3 B8-5s), Estes Cobra clone (3 B6-4s), Ranger (3 B6-4s), and the homebrew GT-3 GB on 1 B8-5 and 2 B6-0s.

Dave Bender flew some familiar models such as the Mega Sizz and Air Mail, as well as an old Centuri Ozone Project. Dan Weinhold brought out an Estes Phoenix for it's maiden voyage. After 'chute deployment problems on it's first flight, the second try was perfect. Rita Feveryear received an Estes Astrocram 110 for Christmas, and finally had a chance to fly it on Mother's Day. She made 3 flights, and we can't wait to see the pictures.

What may have been the most impressive flight of the day was made by Gary Feveryear, flying his North Coast Big Brute on an Aerotech G25-10WL. The 5-second burn on this motor produced a beautiful flight, and due to the great weather, the model came down close to the launcher. He later repeated the performance with an F25. Brother Glenn had another good flight on his Arreaux, with an E15-4WL. Ed also flew his homebrew Azinon on a F25-4WL, which all but landed on the launcher. This model features a metallic maroon finish that must be seen. Rumor has it that Ed is considering a kit version.....

MAY 24, 1992

Some sport flying was also going on during SPAARSEC-VI, too. In particular, Ed made an F Streamer Duration Record Attempt. His F32-10 powered model posted a mark of 230s. Ed already holds the F SD record, so he just upped the ante. The Rubright brothers also came to do some sport flying, as did Bill Rhoat. Patrick Boyle had a 2-stage Magnum flight tracked, too.

FLIGHT LOGS

SPORT FLIGHTS, 5/3/92, SPAMO-1 OPEN

<u>#</u>	<u>NAME</u>	<u>MODEL</u>	<u>MANU/SB</u>	<u>MOTOR(S)</u>	<u>RESULT</u>
1	Ed Miller	UFO-24	SB	AT E16-4RMS	GF
2	Rick Hackman	Vector-V	Centuri	E A8-3	GF
3	" "	Nova	Centuri	E 1/2 A3-2	ND
4	" "	Nova	Centuri	E 1/2 A3-2	GF
5	" "	USS Enterprise	Estes	E B4-2	Hung On Rod
6	" "	Groove Tube	Centuri	E A8-3	GF
7	Patrick Boyle	Magnum	Estes	E C6-5	GF 16.4s
8	" " "	Magnum	Estes	E B6-4	GF
9	" " "	Magnum	Estes	E C6-5	GF
10	Andrew Snook	B Eggloft	SB	E B6-2	GF

Models Flown:

Estes - 2
Centuri - 3
Scratchbuilt - 2

Motors Flown:

Estes - 9
Aerotech RMS - 1

Motor Failures:

None

SPORT FLIGHTS, 5/10/92

1	Dave Bender	Flying Saucer	SB	AT E25-4	GF
2	" "	Sky Demon	SB	E C6-0/C6-7	GF
3	" "	Air Mail	SB	AT E15-4WL	GF 104.6m
4	" "	Mega Sizz	Estes	E D12-5	GF
5	" "	Ozone Project	Centuri	E C5-3	GF
6	Dan Weinhold	Phoenix	Estes	E D12-3	CHU
7	" "	Phoenix	Estes	D12-3	GF
8	Rita Feveryear	Astrocam 110	Estes	E B8-5	GF
9	" "	Astrocam 110	Estes	E B8-5	GF
10	" "	Astrocam 110	Estes	E C6-7	GF
11	Fred Hoke	Falcon	THOY	AT G80-4T	GF
12	John Yost	Mustang	Aerotech	AT E30-7T	GF
13	" "	Falcon	THOY	AT G80-4T	GF
14	Ed Miller	Armacron III	SB	E (3) B8-5	GF
15	" "	Falcon	THOY	AT G80-4T	GF
16	" "	Trailblazer	MRC	AT D13-4RMS	SEP
17	" "	Azinon	SB	AT G42-4WL	GF
18	" "	Magnum Wizard	SB	E (3) D12-5	CATO
19	" "	Nike-Smoke	SB/Centuri	E C6-5	GF
20	Gary Feveryear	Corsair	Estes	E B6-4	GF
21	" "	Mean Machine	Estes	E D12-5	GF
22	" "	IRIS	Estes	E B6-4	GF
23	" "	Big Brute	North Coast	AT G25-10WL	GF
24	" "	Big Brute	North Coast	AT F25-6WL	GF
25	Glenn Feveryear	Grumpy Dog	SB	E D12-0/D12-3	GF
26	" "	Ranger	SB	E (3) B4-4	GF
27	" "	Arreaux	Aerotech	AT E15-4WL	GF
28	George Beever	Rampage	Estes	Q A6-4	SEP
29	" "	Cobra	SB	E (3) B6-4	GF
30	" "	GT-3 GB	SB	E B8-5/(2) B6-0	GF
31	" "	Landviper	Custom	E (3) B8-5	GF
32	" "	Ranger	SB	E (3) B6-4	GF

33	George Beever	Nike-K	Quest	Q B6-4	GF
34	" "	Nike-K	Quest	Q C6-5	GF
35	" "	Falcon	THOY	AT G80-4T	GF

Models Flown:
 Scratchbuilt - 11
 Estes - 10
 THOY - 4
 Quest - 1
 Aerotech - 2
 Custom Rocket Co. - 1
 Centuri - 2
 North Coast Rocketry - 1
 MRC - 1

Motor Usage:
 Estes - 36
 Quest - 3
 Aerotech - 11 (single use)
 Aerotech - 1 (RMS)

Cluster Day Flights: 7

Motor Failures: 1 (D12-5 CATO on flight #18)

SPORT FLIGHTS, 5/24/92

1	Patrick Boyle	Magnum	Estes	E D12-0/C6-7	GF
2	" "	Magnum	Estes	E D12-0/C6-7	GF
3	" "	Magnum	Estes	E C6-5	GF
4	Bill Rhoat	Red Alert	Estes	E 1/2A3-4	GF
5	" "	Scout	Estes	E 1/2A6-2	GF
6	" "	Sprint	Quest	E A8-3	GF
7	" "	Phoenix	Estes	E D12-3	GF
8	Gary Rubright	Athena	Estes	E B4-4	GF
9	" "	Athena	Estes	E B4-4	GF
10	" "	Cajun	Estes	E B4-4	GF
11	" "	Cajun	Estes	E B6-4	GF
12	Alan Rubright	America	Estes	E B4-4	GF
13	Ed Miller	Rascal	Estes	E C6-5	GF
14	" "	F SD	SB	AT F32-10WL	GF

Models Flown:
 Scratchbuilt - 1
 Quest - 1
 Estes - 9

Motor Usage:
 Estes - 15
 Aerotech -1

Motor Failures: 0

SECTION NEWS NOTES

New Members: Since the first of this year, we have added a number of new members to SPAAR. Patrick Boyle, 12, joins us from Birdsboro, Berks County. Gary and Alan Rubright, Lancaster, are somewhat familiar, having flown with us last summer. Rita and Renee Feveryear, mother and daughter, are very familiar faces; they Glenn's wife and daughter, and now official members. Welcome to all!

Date Change: As many already know, the Sport Launch scheduled for Sunday, June 14 (Patriot & SCUD Day), has been rescheduled for Sunday, June 21, at Cocalico High School, from 3PM to 7PM. Please take note of the time change. And bring those Patriots!



MANUFACTURER'S NEWS

ESTES: A phone call to Mike Hellmund at Estes Industries, Penrose, Co., was pleasant, as usual. Mike says that the Astroblaster R/C RG, as well as the new D11P motors to power it, are now being shipped. In addition, the new Pro Series launch pad and controller will be available by late summer.

Also, Mike stated that at NARCON-92, held in Colorado in mid-May, Estes flew a test model powered by an F80-8 composite motor, made "in-house".

CUSTOM ROCKET CO.: Custom Rocket has a new address as well as a new product flyer. Custom offers 6 kits, all attractive sport flyers. They can be contacted at: 335 Water St., Augusta, ME 04330 (207) 623-4114.

Aerotech: Aerotech Consumer Aerospace, Las Vegas, NV., has announced the release of a ton of new products, as well as a new catalog.

According to a press release, "...the 1992 Aerotech catalog contains a thorough and complete explanation of Aerotech products, concepts and technologies... Described within the new catalog are five new rocket kits, a new starter set incorporating the Reloadable Motor System (RMS), over 40 new reload kits for the RMS motors ranging from 'B' to 'G' performance, a special boxed set of the three different case size Aerotech RMS motors, new reloads for the Phoenix radio controlled rocket launched glider including the SKY'RITER reload that permits the pilot to make a smoke trail in flight, and the release of the much requested ASTROBEE D scale rocket."

As for the new kits, "...the CHEETAH is 32" long...capable of reaching altitudes over 2/3 of a mile on Aerotech 'G' motors". The BARRACUDA is 1.9" X 56"; the STRONG ARM "... is styled after the real military Standard ARM missile." [This kit shows,

to me at least, a very strong Enertek heritage - ED] It is 44" long, based on the 2.6" body tube. The MIRAGE is a 3-finned, 2.6 X 87" sport model. The WART HOG also features military styling, and is 37" tall. The long-awaited ASTROBEE D is 68" tall, and uses the 2.6" diameter airframe tube.

As for the new reloads, the new offerings span the spectrum from 18mm through 29mm. The new 18mm reloads include a 'B6' in 2, 4, & 6 second delays; a 'C4' (4,7,10), 'C6' (3,5,7); a 'C12' (4,7,10); a 'D24' (4,7,10), and an 'E27' (4 second delay only). The B6, C12, D24, and E27 are Blue Thunder motors, while the C4 and C6 use White Lightning.

The 24mm RMS has six new reload kits. They are the 'D9' (4,7), 'D15' (4,7,10), 'E11' (3,5), 'E28' (4,7,10), 'F12' (3,5), and the 'F39' (6,9,12). The D15, E28, and F39 reloads are Blue Thunders, while the E11 and F12 use the 'Black Jack' propellant. All the rest are White Lightnings.

The RMS-29/40-120 also will have a number of new reloads. They are: 'E23' (5,8,11); 'F22' (5,7); 'F52' (5,8,11); and 'G33' (5,7). The E23 and F52 are Blue Thunders; The F22 and G33 are Black Jacks.

Also available will be a new starter set, the INITIATOR SYSTEMS PACKAGE-RELOADABLE MOTOR SYSTEM (ISP-RMS). This set features all of the items of the standard Aerotech starter outfit, however incorporates an RMS-29/40-120 instead of the 2 single use motors. The original set is still available. In addition, a boxed set containing the 18mm, 24mm, and 29mm RMS sets will be offered.

A recent call Aerotech's Bob Sanford indicates that the CHEETAH and BARRACUDA kits are now being shipped. The MIRAGE will follow in June, as will the boxed set. The B and C reloads will be out in early June also. Late in the month, the STRONG ARM and WART HOG will follow, and the ASTROBEE D in late July.

MANUFACTURER REVIEWS

by Ed Miller

INNOVATIONS

1455 Magellan Circle
Orlando, FL 32818

INNOVATIONS is the newest high power kit manufacturer to come on the market. Their line-up includes nine kits. All feature LOC/Precision tubing, custom turned nose cones, through-the-wall plywood fins, and nylon chutes. The first kit is a "two-in-one". It can be built as either a "Hurricane Recon" or a "Tempest Fighter". They both look like futuristic fighter planes. Both versions have a cluster configuration, one 24mm motor and eight 13mm motors. The price is \$35.00. The "GTX" is 32" long by 3" in diameter, and has a custom turned boat-tail. It sells for \$30.00. The "Devastator" is 44" long by 2.5" diameter, and has a 4" diameter payload section on a turned reducer, and sells for \$40.00. The "Ring Leader" is 23.5" long by 2.5" in diameter, and has a tail ring. It sells for \$30.00. The "Canberra II", 28" long and 3" in diameter, is an interplanetary light bomber. It's price is \$45.00. The "Sidewinder" is 59" long and is 3" in diameter, and is a semi-scale model. It sells for \$55.00. The "Sea Dart" is another semi-scale model, and is 50" by 4"; it sells for \$80.00.

The most expensive kit listed, at \$99.00, is a "Little Joe II". This kit is 29" tall, and 4" in diameter. It is the same size as the old Centuri kit, but flies on a single 'G' motor. It includes a corrugated body wrap and pre-shaped fins. The last kit is the Juggernaut Cruise Missile. No specs are given. INNOVATIONS can also make custom nose cones up to 16' in diameter. The catalog is free.

VINYWRITE

16043 Tulsa St.,
Granada Hills, CA 91344
(818) 363-7131

VINYWRITE specializes in making self adhesive lettering and logos for the R/C aircraft hobby. Included with each catalog is a small sample of their product. I tested it and found it to be of high quality. I liked it so much that I ordered two sets of print to name two rockets that I was painting at the time.

The catalog is a little confusing. There are 15 styles of lettering, available in 24 colors. Sizes range from ¼" high to 12" high. There are many options available. Forward slant, rearward slant, pinstripe outline, condensed text, stencil mask, mirror image, multi-line, arch text, column format, and stylized text are some.

Prices are very reasonable. I ordered two seven letter sets, one inch high, and the total was only \$4.50 plus shipping.

VINYWRITE offers a quality product that can be used to dress up that special product that you are working on.

Catalog and color samples: \$2.00

SPAMO-1 Open, May 3:

Left, "Dueling CDs": Glenn Feveryear of SPAAR and Tom Whymark of C.S.S.S.

Right, Tom Whymark readies a glider, while Gary Feveryear loads a 1/4A Streamer model into his tower.

FRONT COVER: Rita Feveryear's Astrocam 110 at launch, May 10.

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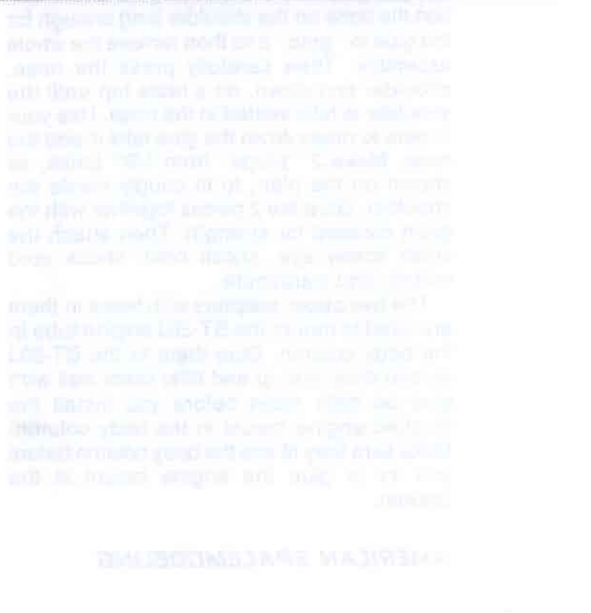
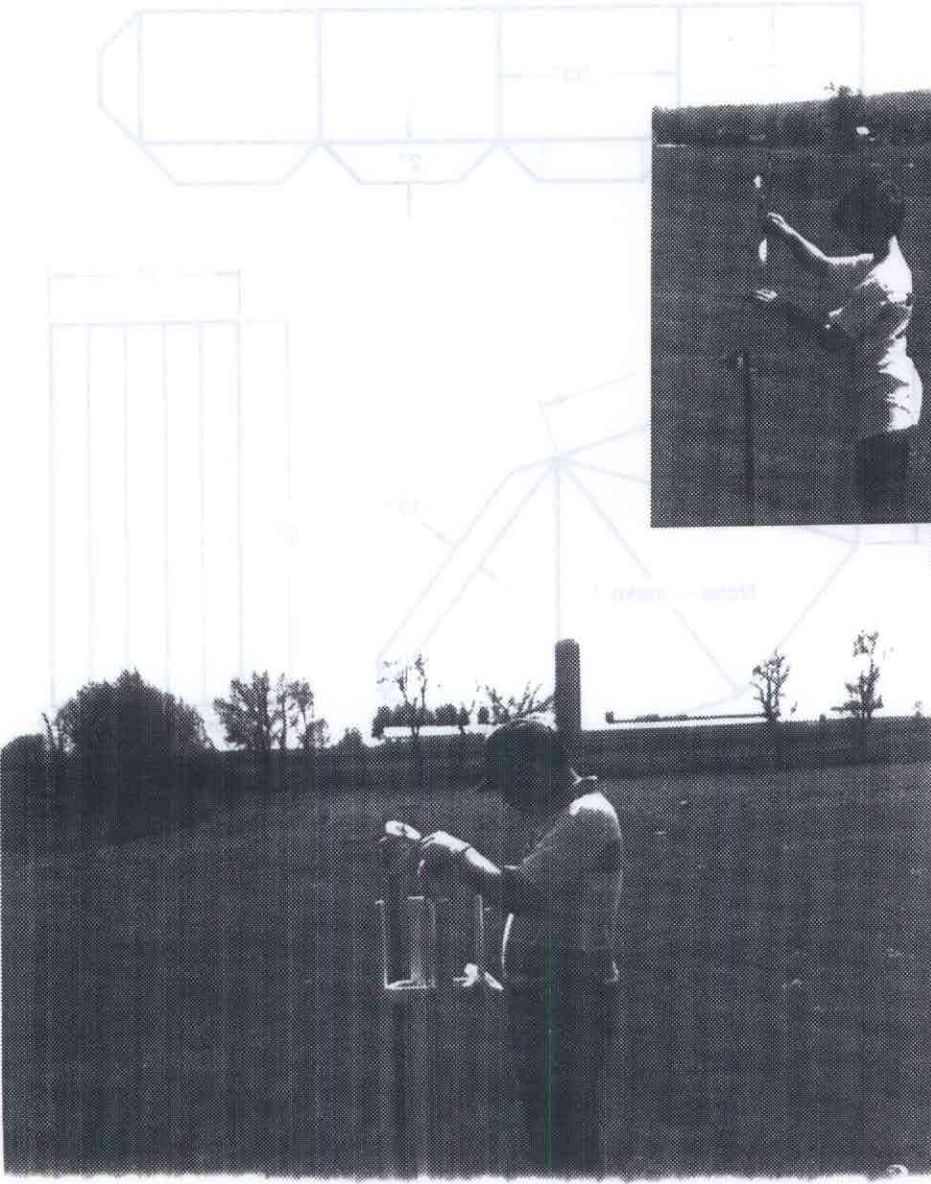
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The INFINITE SQUARE

ODDROC MODEL WITH "INFINITE LOOP" ANCESTORY

By Lawrence Bercini

The Infinite Square is a somewhat unusual rocket [and fitting for end-of-the-month October festivities— Ed.] that is made solely from paper— and is obviously a squared-off Infinite Loop!

Construction

The parts required to build your Infinite Square are (one of each):

- Poster paper
- BT-20J engine tube (2¾" long)
- EB-20A engine block
- 1/8" wide elastic shock cord
- 12" parachute kit
- 1/8" balsa
- small screw eye
- aliphatic glue (Elmer's or the like)

Build and assemble the pieces of the Infinite Square in the following order:

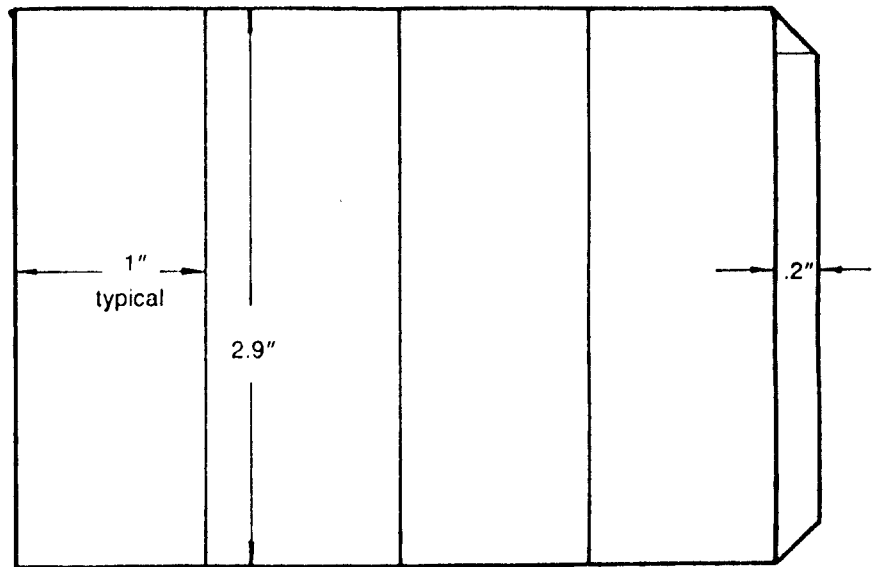
1. body column
2. stabilizer columns and their attachment to the body column
3. nose and adapter
4. engine mount and its attachment to the body column
5. launch lugs

Cut out all of the pieces from poster paper before beginning construction and make a few practice folds to get the feel of the paper. The folds will be more accurate— and the pieces more likely to stay together— if you pre-crease the fold lines from the *inside* of the fold before you make the fold. Do this with a straight edge and a non-serrated butter knife.

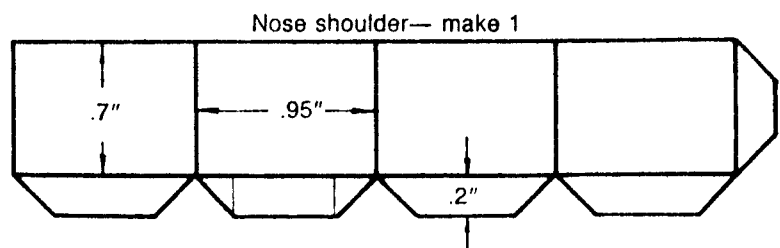
When you attach the stabilizer columns, glue four of them on the flat faces of the body column first. Then hold them in place with paper clips or tape until the glue dries. Glue the four corner stabilizer columns to the body column when the others have dried.

When installing the nose shoulder in the nose, slip the shoulder into the body column and put glue on the exposed glue tabs. Position the nose on the shoulder long enough for the glue to "grab" and then remove the whole assembly. Then carefully press the nose, shoulder end down, on a table top until the shoulder is fully seated in the nose. Use your fingers to press down the glue tabs inside the nose. Make 2 "plugs" from 1/8" balsa, as shown on the plan, to fit snugly inside the shoulder. Glue the 2 pieces together with the grain crossed for strength. Then attach the small screw eye, shock cord, shock cord mount, and parachute.

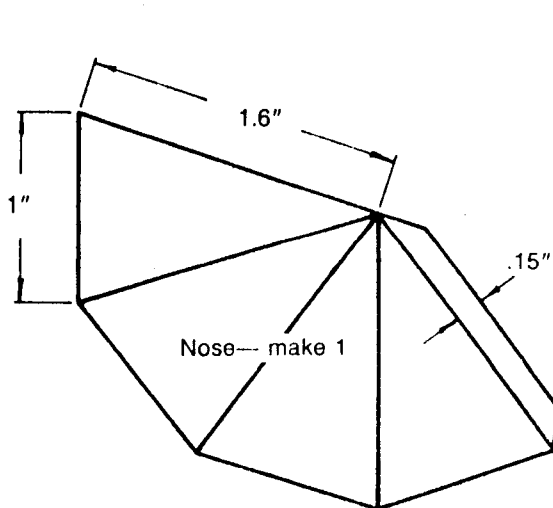
The two paper adapters with holes in them are used to mount the BT-20J engine tube in the body column. Glue them to the BT-20J so that they line up and fillet them well with glue on both sides before you install the finished engine mount in the body column. Make sure they fit into the body column before you try to glue the engine mount in the column.



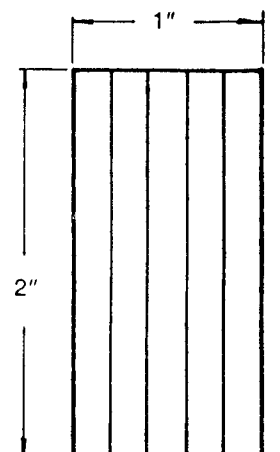
Stabilizing Columns— make 8



Nose shoulder— make 1



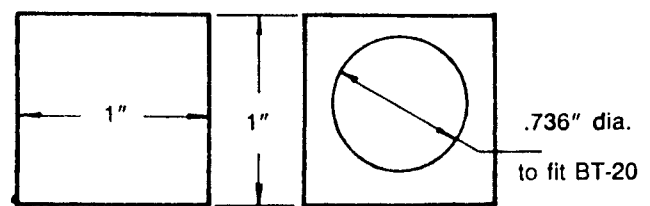
Nose— make 1



Launch Lug make 2

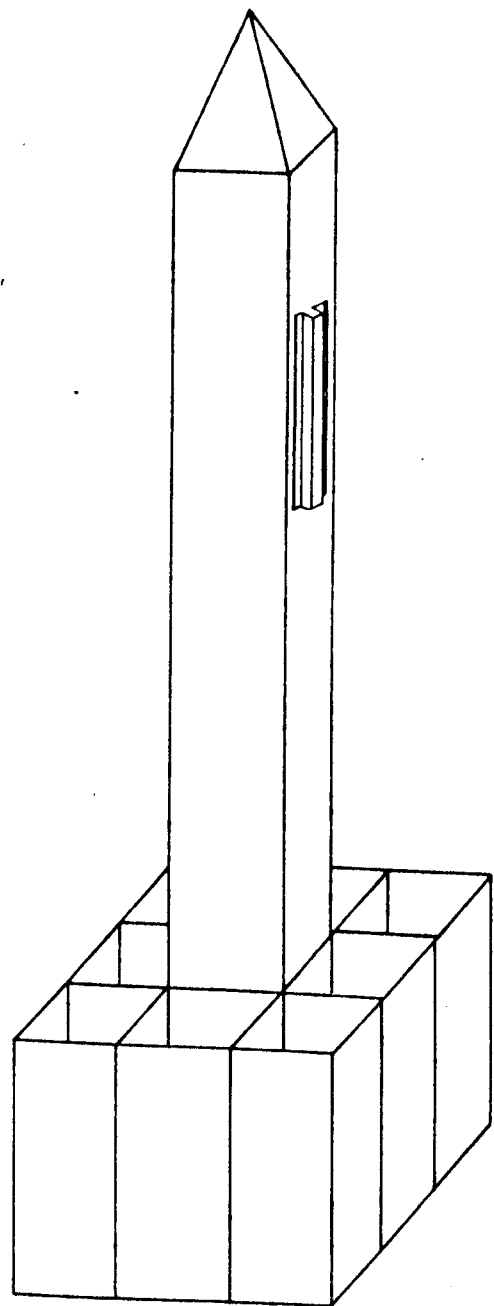
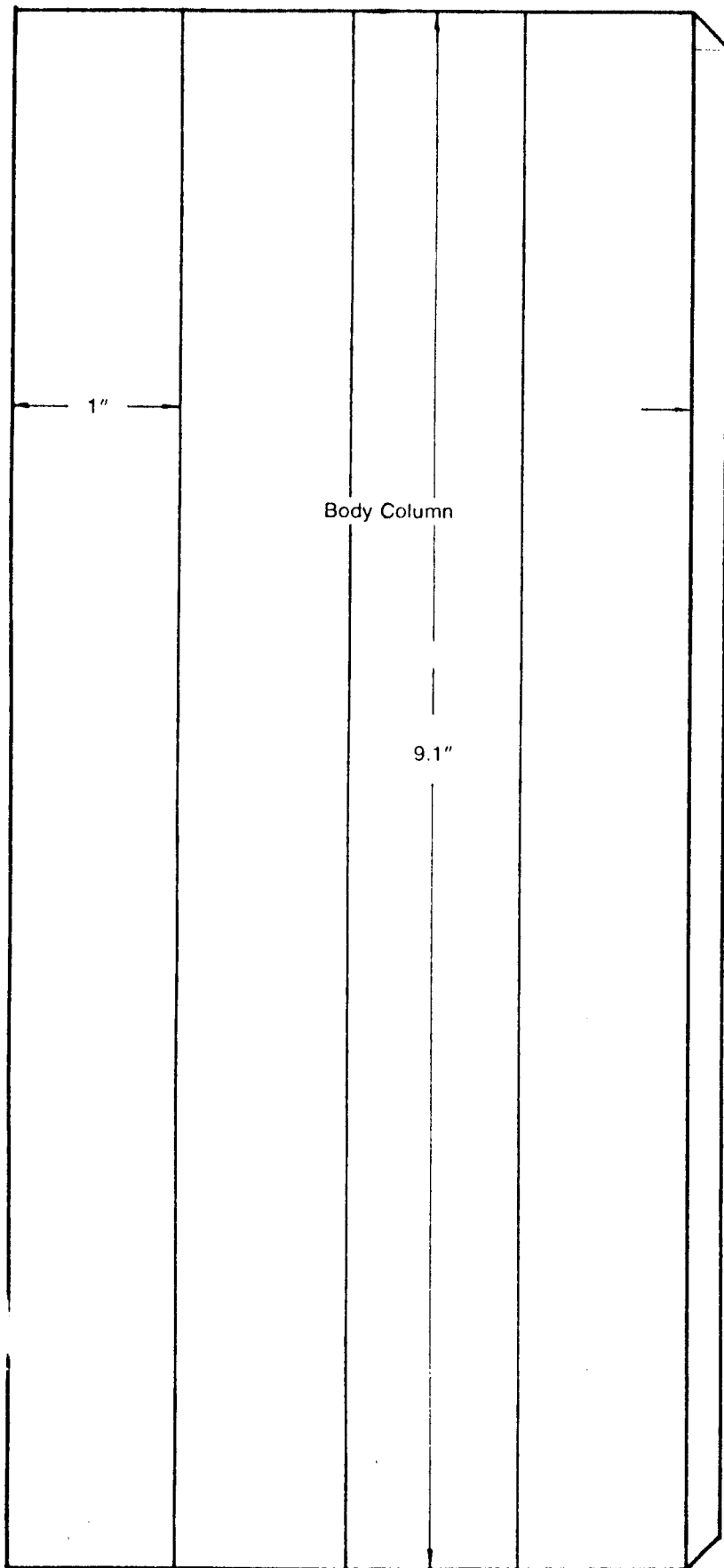


Folded View



Balsa Nose Plug
make 2

Engine Mount Adapter— make 2



Attach one of the launch lugs inside one of the stabilizer columns and the other up near the nose as shown on the plan. The launch lugs are purposely designed a little big to insure they will be large enough to fit easily on the launch rod.

Paint the Infinite Square any way you want— be creative! Fly with an A8-3. You could use a B6-4, but a C6 engine will cause problems unless you use balsa or plywood for the engine mount adapters. Build— and fly— carefully and you'll have lots of fun!

**SOUTHERN PENNSYLVANIA AREA
ASSOCIATION OF ROCKETRY**
NATIONAL ASSOCIATION OF ROCKETRY, SECTION 503
PO BOX 127, REAMSTOWN, PENNSYLVANIA 17567

_____ YES, I WANT TO JOIN SPAAR! HERE ARE MY DUES

_____ PLEASE CONTACT ME WITH MORE INFORMATION

NAME _____

STREET ADDRESS _____

CITY _____ STATE _____ ZIP _____

PHONE: AREA CODE () _____ AGE _____

DATE OF BIRTH _____

_____ I HAVE NEVER FLOWN ROCKETS. _____ I HAVE BEEN FLYING
MODEL ROCKETS FOR _____ MONTHS/YEARS.

_____ I AM A MEMBER OF THE NAR. MY NAR NUMBER IS _____
_____ I AM NOT YET AN NAR MEMBER.

DUES: _____ 14 YEARS OF AGE OR YOUNGER, \$5.00
 _____ 15, 16 OR 17 YEARS OF AGE, \$7.00
 _____ 18 YEARS OF AGE OR OLDER, \$10.00
 _____ FAMILY PLAN: OLDER MEMBER JOINS AT THE FULL RATE
 THEN ALL YOUNGER MEMBERS JOIN AT HALF PRICE.
 (FAMILY PLAN PROVIDES ONLY ONE COPY OF THE
 NEWSLETTER PER FAMILY.)

DUES ARE PAYABLE FOR 12 MONTHS. RETURN THIS FORM TO:
 SPAAR, PO BOX 127, REAMSTOWN, PENNSYLVANIA 17567

Membership Application

NATIONAL ASSOCIATION OF ROCKETRY
 1311 EDGEWOOD DRIVE, DEPT M
 ALTOONA, WI 54720

NAME _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

DATE OF BIRTH: Month _____ Day _____ Year _____

I pledge to conduct all my model rocket activities in compliance with the NAR/HIA
 Safety Code. I will never fly model rockets at the same time or in the same vicinity
 as other types of rockets.

SIGNATURE: _____

DATE: _____

MEMBERSHIP CATEGORY (Check one only):

- JUNIOR MEMBERSHIP (Under 16 as of January 1)..... \$15.00
- LEADER MEMBERSHIP (Under 21 as of January 1)..... \$15.00
- SENIOR MEMBERSHIP (21 or over as of January 1)..... \$25.00

FOR OVERSEAS MEMBERS ONLY

- SURFACE POSTAGE (Required)..... \$ 6.75
- OPTIONAL AIRMAIL POSTAGE (Replaces surface)..... \$33.00

OPTIONAL MEMBERSHIP SERVICES

- FAI STAMP for US Team eligibility and world records \$10.00
- FIRST-CLASS POSTAGE (U.S. & Canada only) .. \$10.50

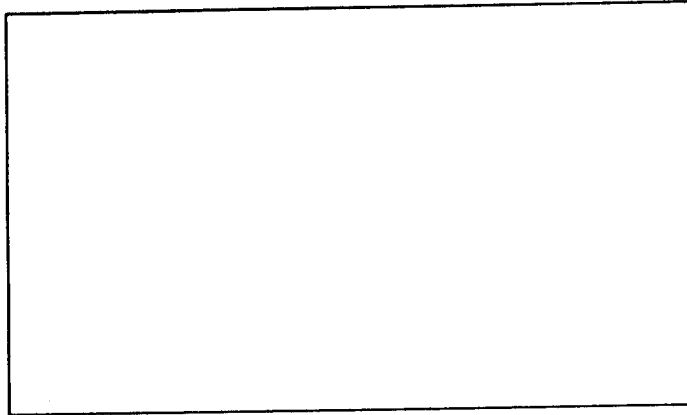
DISCOUNTS (Select only one)

- RENEWAL (NAR # _____ Section # _____); Deduct \$1...\$ _____
- FAMILY PLAN (Details below); Deduct \$8.....\$ _____

Amount Enclosed.....\$ _____

Family Plan: Full rate for one family member, others at \$8 discount — one American Spacemodelling per family.
 NAR Membership dues include \$8.88 for a subscription to American Spacemodelling.

Canadian Modelers: Write to the Canadian Association of Rocketry, P.O. Box 1031, Postal Station B, Mississauga, Ontario, Canada L4Y 3W3.
 Rights, privileges, and responsibilities of membership begin upon acceptance of this application by the NAR. All memberships are for twelve months
 from the date of acceptance. Rates and services subject to change without notice. Please allow 6-8 weeks for delivery of of American Spacemodelling.



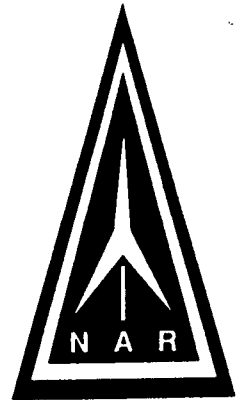
TO:

SPAAR
P.O. Box 127
Reamstown, PA. 17567



**SOUTHERN PENNSYLVANIA
AREA ASSOCIATION
OF ROCKETRY**

PROMOTING SAFE MODEL ROCKETRY
IN SOUTHERN PENNSYLVANIA
AND NORTHERN MARYLAND



*The Southern Pennsylvania Area
Association of Rocketry*

COUNTDOWN

VOLUME 5 ISSUE 3
MAY/JUNE 1992