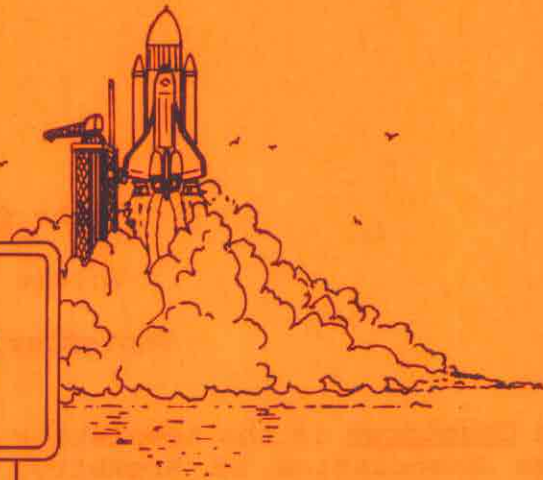


COUNTDOWN



OFFICIAL NEWSLETTER OF
THE SOUTHERN PENNSYLVANIA AREA ASSOCIATION OF ROCKETRY

VOLUME 8, ISSUE 4 September/October 1995

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Special Feature:



MOUNTAINSIDE HOBBIES

PLUS

Sport Launch Coverage.....B & C Eggloft Altitude Plan.....

Altitude Prediction Charts.....The SPAAR Forum

The Countdown

Volume 8, Issue 4

September/October 1995

The Countdown is the newsletter of SPAAR, the Southern Pennsylvania Area Association of Rocketry, NAR Section #503, as well as of Tripoli Susquehanna/#71. Mailing address for both is: PO Box 127, Reamstown, PA 17567. Material in this newsletter may be reprinted with proper credit.

Section President: Glenn Feveryear
Tripoli Prefect: Ed Miller
Newsletter Editor: George Beever

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Thanks this time to:

Glenn Feveryear, George Fetter, Mark Kamide, & Doug Gardei

SCHEDULE

SUNDAY, OCTOBER 29, 1 - 5PM: SPAAR SPORT LAUNCH, COCALICO HIGH SCHOOL, DENVER, PA.

SUNDAY, NOVEMBER 12, 1 - 5PM: SPAARSPAM-7, SPORT LAUNCH & TAILGATE PICNIC, COCALICO HIGH SCHOOL, DENVER, PA.

FRIDAY, NOVEMBER 17, 7 - 9PM: SPAAR BUSINESS MEETING, HOMEDCO COMMUNITY ROOM, HARRISBURG AVE., LANCASTER.

FRIDAY, NOVEMBER 24: COCALICO HIGH SCHOOL, THANKSGIVING DAY + 1 SPORT LAUNCH, TIME TO BE ANNOUNCED

SPAAR NEWS NOTES

Club Meetings: Make a note to attend the upcoming club meetings. They are on Friday, October 20 and Friday, November 17, from 7 to 9PM at the HOMEDCO Community Center, Harrisburg Ave., Lancaster.

Special note to new members: the club meetings are a great way to get to know other members, show off your latest projects, share information, have your questions answered, and to have a say in the direction of your club. Please make an effort to attend. For directions from north of Lancaster, call George Beever at 733-4170; from the south, call Glenn Feveryear at 717-456-5570.

Sport Launches: Our upcoming launches will be on Sunday, October 29 and Sunday, November 12. Both will be from 1 to 5PM. The November 12 launch is our annual SPAARSPAM tailgate picnic. Bring along goodies of your choice to share.

Club Launch System: will be used through November 12. From then until spring, bring your own launch pad and power source. This has been the club's practice for about 5 years, and was done so that we wouldn't have to assemble the club's launch system in cold weather.

Altitude Predictions: Pages 7, 8, and 9 of this issue contain the results of some altitude

calculations that George Fetter worked out on his PC using a program that he worked out. It should be helpful in motor selection for some basic models. Thanks George!!

SPAARSEC-XIII Results: Can be found on page 16 of this issue. For better or worse, this will be the last Section Meet competition until 1997 at the earliest. The reason? Lack of participation.

Competition Plan: Is on page 15. This is one of Glenn Feveryear's successful designs, for the B and C Eggloft Altitude events. The egg capsule is from Apogee, and even though they might be out of production, a large number are probably still on the market. If you cannot locate one, the shroud can be adapted to other egg capsules.

Newsletter Submissions: Yea, here it is again. And again. And again. Please send articles, plans, or whatever to PO Box 127, Reamstown, PA 17567. Thanks. This is a recording...this is a recording...this is a recording....

Estes/NCR: Well, most people have heard that Estes has bought out North Coast Rocketry. The competition line is history, the larger kits will remain under the NCR logo, who knows about the Impulse motors.

THE SPAAR FORUM:**FLYING THE FIELD**

Is it a challenge or is it bull?

[Editor's note: I wrote this article in the hope of stimulating debate or discussion, or at least to get people to think. Written replies are very much welcome, and will be printed.]

"Flying the Field" is a term most often heard in competition circles, often with disdain. What does it mean? Well, simply put, "flying the field" means that a contest's events, or just how they are flown by the contestant, are dictated by the physical size of the field or area in which the contest is being held. At first glance, one might think that this is a no-brainer. Well, maybe....

There is a train of thought that says that contest directors should pick only those events which can be flown in their fields with the highest known performance expected; in other words, assume that only high-performance contest models can, or should be used. For example, a CD should not list C Parachute Duration as an event if the contest is to be held in a schoolyard-size field. No one would ever get a model back, and in duration events except for eggloft, at least one model must be returned.

I have to admit that I subscribe to most of this, but for some I say "horse feathers!"

What happened to that mystical sounding thing that competition gurus discuss, sometimes for hours on end, called "strategy"? Would not "Flying the Field" fall under the umbrella of strategy?

If high performance is what it takes to win, then I wonder why the NAR even lists events such as C Parachute Duration? You can fly C PD with high-performance models using the latest motor and airframe technology in oh, say, the Black Rock Desert in Nevada. I'm afraid I don't get there too often. Let's face it, if the only way to possibly win is to go all out every time, then us East Coasters are limited to 1/2A Streamer, 1/2A Boost/Glider, B Eggloft, and the like. Oooh, sounds thrilling.

If competition flyers must take variables such as the strength and direction of the breeze, air temperature, thermal activity, level of competition, and the events themselves into their overall strategy going into a meet, why not the size of the field? Anyone want to explain this to me?

SPECIAL FEATURE:**MOUNTAINSIDE HOBBIES**

Many SPAAR members have visited Mountainside Hobbies over the past few months. Some of you joined the club after purchasing model rocket items at Mountainside. Some may have even read references to the shop here in the Countdown. Whatever the case, an in-depth look at Mountainside Hobbies is long overdue.

Mountainside Hobbies is located at 25 East Main Street in Ephrata, which makes it almost next door for most SPAAR members. Mark Kamide, the owner, opened the doors for business on August 1, 1994, specializing in radio control hobbies.

Mark is a native of Carthage, New York. He is employed by a Mt. Joy company as an engineer, doing design work in progressive tooling. Mark has been in this line of work for 15 years.

Mark says that Mountainside Hobbies is simply a "natural extension" of his interest in hobbies, "to get kids away from the TV, to get them to think". In regards to model rocketry, Mark's career began when he was 8 years old, when he purchased an Estes starter kit through the mail [sound familiar?-editor]. Mark's major rocketry interest continues to be scale or scale-like models.

George Fetter is the other half

of the SPAAR/Mountainside connection. George is an engineer/computer software designer by trade, and is currently Mountainside's only fulltime employee. George's hobby background includes R/C aircraft and sailplanes, but you have to draw the conclusion, based on the sheer number of newtons that he flies, that rockets are at the top of George's list.

Currently, Mountainside carries the most extensive line of model rocketry products in Lancaster, Berks, or Lebanon Counties. Available are Estes kits, motors, and parts, which include body tubes, parachutes, motor mounts, and the hard to find balsa nose cones and transitions. North Coast Rocketry kits, soon to be available through Estes, are on the shelves at Mountainside. They also stock Aerotech kits and motors, both single use and reloads. A selection of Quest kits are available, and Mark and George state that they plan to stock kits from The Launch Pad in the near future.

Other products that are available at Mountainside Hobbies that are of interest to rocket modelers include the full line of ZAP cyano and epoxies; X-acto and Dremel tools; Futaba radio gear; Testors Paints; Top Flight products; and Great Planes hobby products. Oh, did we

forget to mention that Mountainside is a SIG dealer, too?

In addition to everything that is in the store, Mark and George want people to know that they mail order, also. "If we don't have it, we'll get it for you, no problem" says Mark.

Even though the shop opened with the R/C hobbyist in mind, Mark and George both say that the model rocketry market appears to be the fastest growing. A walk down the aisles at Mountainside will tell you that. Mark's goal is to carry a complete, full line of kits, motors and products to serve the youngest rocketeer, to the old pro who wants a challenge. Hence, the Estes and Quest lines for the newcomers, and the North Coast [soon Estes/NCR], Aerotech, and The Launch Pad items for the more experienced.

Mark and George are also committed to after the sale support, too. Mark states that he has been turned off by hobby products, particularly model rocketry items, being sold by large department stores. "Who at Walmart is going to show the father and son how to put together and fly that Estes kit?" Mark wonders. "Is there anyone at the JC Penny catalog place that can give you advise on what motor to use?" At Mountainside, they'll go over your new purchase with you and answer your questions. And if they can't answer them, they'll

find someone who can.

It's no secret that the rise in SPAAR's membership these last twelve months [and the rejuvenation it's brought to the club] and the arrival of Mark, George, and Mountainside Hobbies to the scene are related. In addition, any story about Mountainside Hobbies would not be complete without a mention of Mark's wife Cindy. You have to meet Cindy one time to know that she must have a ton of the virtue most important to any hobbyist's wife - patience. And she builds a nice flying Anubis, too. Then there is Schweitzer, the family cocker spaniel, who isn't scared of rockets...

Mountainside Hobbies initiated new hours recently:

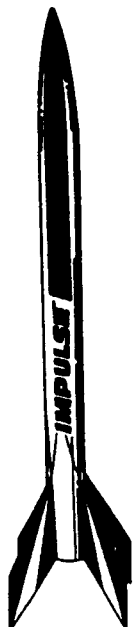
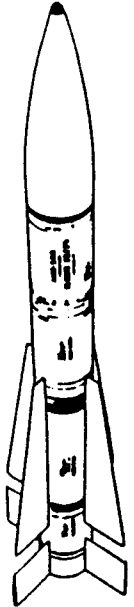
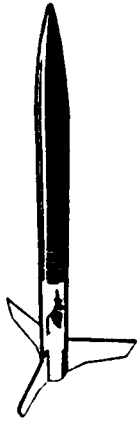
Monday, 12 - 9PM
Tuesday, 12 - 5PM
Wednesday, 12 - 7PM
Thursday, 12 - 9PM
Friday, 12 - 9PM
Saturday, 10AM - 4PM

Phone number [717] 733-4140
25 East Main St., Ephrata, PA
17522.

We in SPAAR are lucky to have a full service hobby shop in our area, run by a couple of guys who like rockets and the people who fly them. Take advantage of the situation; it will benefit everybody!

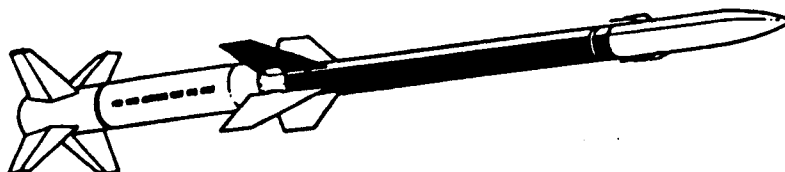
AEROTECH ENGINE/ALTITUDE DATA FOR A 5 OZ ROCKET.

ENGINE SIZE	VELOCITY MPH	ALTITUDE @ BURNOUT FT.	MAXIMUM ALT	COAST TIME SECONDS.
D9	196.82	324.76	1295.23	7.76
D13	228.29	259.78	1565.43	9.01
D15	220.07	213.60	1426.90	8.68
D21	259.75	182.38	1872.60	10.25
D24	247.60	151.31	1687.08	9.77
E11	341.13	790.52	3705.87	13.46
E15	440.14	854.40	5707.60	17.36
E16	318.59	584.08	3126.78	12.57
E23	338.59	429.75	3301.75	13.36
E25	282.50	181.27	2180.50	11.14
E27	289.84	181.19	2285.64	11.43
E28	449.47	470.87	5531.82	17.73
E30	467.59	460.61	5938.01	18.44
F12	417.46	1099.83	5465.72	16.47
F14	572.87	1916.74	10138.36	22.60
F22	511.80	1118.31	7680.41	20.19
F24	527.55	802.40	7774.62	20.81
F25	787.36	1855.91	17386.28	31.06
F39	559.26	521.98	8357.46	22.06
F40	683.28	1002.14	12698.10	26.95
F50	839.86	989.83	18660.42	33.13
F52	696.77	786.10	12948.57	27.49
G33	780.82	1741.02	17014.62	30.80
G40	1076.83	2369.03	31418.16	42.48
G64	989.74	1360.90	25901.45	39.04
G80	1125.11	1237.62	32949.96	44.38



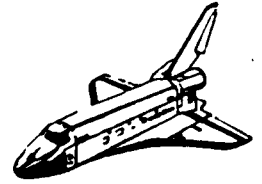
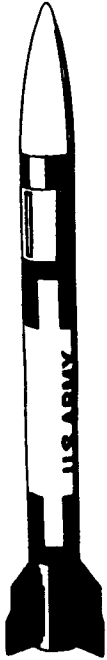
AEROTECH ENGINE/ALTITUDE DATA FOR A 10 OZ ROCKET.

ENGINE SIZE	VELOCITY MPH	ALTITUDE @ BURNOUT FT.	MAXIMUM ALT	COAST TIME SECONDS.
D9	89.02	146.88	345.41	3.51
D13	109.31	124.39	423.72	4.31
D15	110.28	107.03	411.68	4.35
D21	127.68	89.65	498.07	5.04
D24	126.13	77.08	475.62	4.98
E11	166.60	386.06	1081.37	6.57
E15	220.55	428.13	1646.70	8.70
E16	179.90	329.82	1140.64	7.10
E23	198.02	251.33	1233.65	7.81
E25	141.58	90.85	592.99	5.58
E27	148.56	92.87	645.74	5.86
E28	241.76	253.28	1717.55	9.54
E30	248.81	245.09	1795.91	9.81
F12	208.30	548.79	1635.78	8.22
F14	306.22	1024.55	3373.64	12.08
F22	303.95	664.13	2978.49	11.99
F24	286.05	435.08	2484.92	11.28
F25	440.58	1038.51	5901.34	17.38
F39	308.32	287.76	2669.20	12.16
F40	417.79	612.75	4985.41	16.48
F50	481.93	567.99	6386.35	19.01
F52	429.27	484.31	5100.68	16.93
G33	484.98	1081.38	6973.78	19.13
G40	647.25	1423.94	11918.82	25.53
G64	626.75	861.78	10702.44	24.72
G80	686.13	754.74	12548.30	27.07



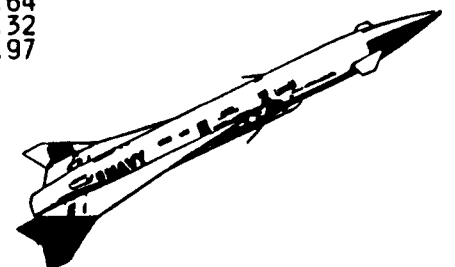
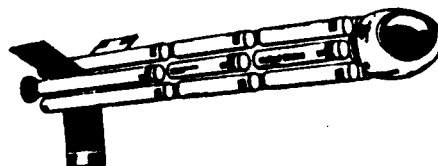
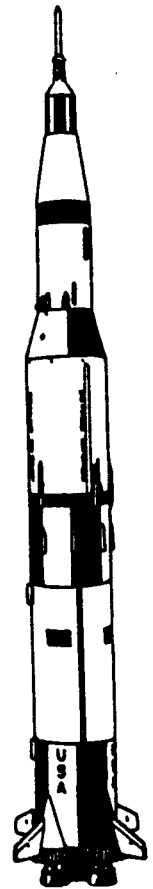
AEROTECH ENGINE/ALTITUDE DATA FOR A 20 oz ROCKET.

ENGINE SIZE	VELOCITY MPH	ALTITUDE @ BURNOUT FT.	MAXIMUM ALT	COAST TIME SECONDS.
D9	24.40	40.26	55.17	0.96
D13	41.12	46.79	89.14	1.62
D15	45.00	43.68	94.40	1.78
D21	55.60	39.04	116.49	2.19
D24	57.17	34.94	116.83	2.26
E11	58.15	134.76	219.48	2.29
E15	90.00	174.70	377.61	3.55
E16	79.84	146.38	306.09	3.15
E23	97.14	123.29	359.66	3.83
E25	63.92	41.02	143.38	2.52
E27	68.60	42.88	160.77	2.71
E28	115.17	120.65	452.94	4.54
E30	118.52	116.75	468.63	4.68
F12	76.96	202.76	351.15	3.04
F14	126.56	423.45	824.71	4.99
F22	149.30	326.23	884.68	5.89
F24	134.40	204.42	656.93	5.30
F25	212.08	499.91	1626.72	8.37
F39	153.36	143.14	732.33	6.05
F40	222.94	326.97	1572.06	8.79
F50	249.21	293.71	1849.58	9.83
F52	233.52	263.46	1629.58	9.21
G33	258.16	575.64	2245.31	10.18
G40	341.19	750.62	3666.92	13.46
G64	350.75	482.28	3564.31	13.84
G80	376.05	413.66	3956.38	14.83



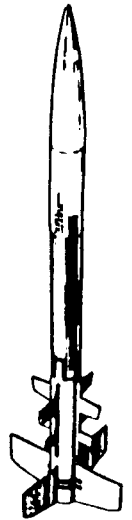
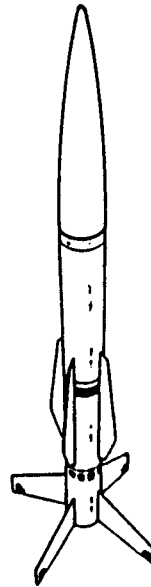
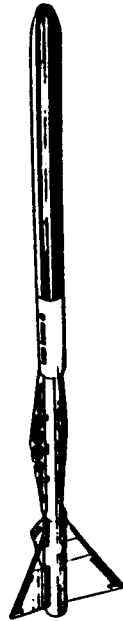
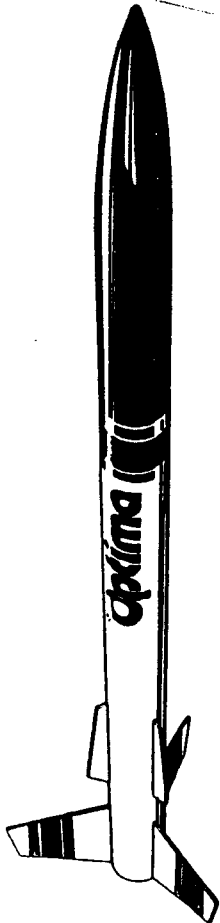
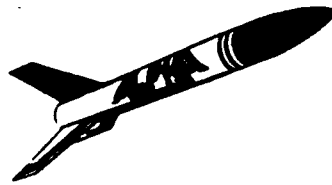
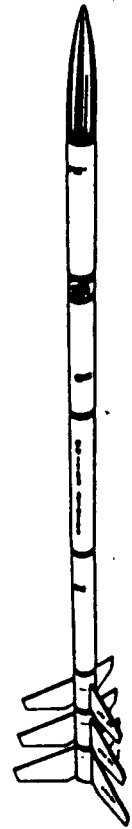
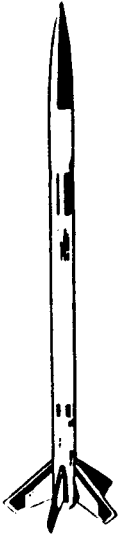
AEROTECH ENGINE/ALTITUDE DATA FOR A 30 oz ROCKET.

ENGINE SIZE	VELOCITY MPH	ALTITUDE @ BURNOUT FT.	MAXIMUM ALT	COAST TIME SECONDS.
D9	0.91	1.50	1.53	0.04
D13	16.88	19.21	26.35	0.67
D15	21.37	20.74	32.19	0.84
D21	30.59	21.48	44.91	1.21
D24	32.79	20.04	46.97	1.29
E11	18.00	41.71	49.83	0.71
E15	42.74	82.98	128.75	1.69
E16	39.58	72.57	111.82	1.56
E23	56.67	71.93	152.38	2.24
E25	36.85	23.64	57.66	1.45
E27	40.36	25.23	66.04	1.59
E28	68.76	72.04	190.48	2.71
E30	71.32	70.26	197.68	2.81
F12	28.06	73.92	93.64	1.11
F14	57.05	190.89	272.44	2.25
F22	85.94	187.78	372.79	3.39
F24	77.93	118.53	270.68	3.07
F25	124.76	294.09	684.05	4.92
F39	96.17	89.76	321.44	3.79
F40	143.74	210.82	728.44	5.67
F50	160.93	189.66	838.44	6.35
F52	154.10	173.85	768.74	6.08
G33	163.51	364.57	1034.30	6.45
G40	218.95	481.69	1682.68	8.64
G64	236.16	324.71	1721.84	9.32
G80	252.83	278.11	1879.47	9.97



AEROTECH ENGINE/ALTITUDE DATA FOR A 40 OZ ROCKET.

ENGINE SIZE	VELOCITY MPH	ALTITUDE @ BURNOUT FT.	MAXIMUM ALT	COAST TIME SECONDS.
D9	0.00	0.00	0.00	0.00
D13	4.46	5.08	5.58	0.18
D15	9.18	8.91	11.01	0.36
D21	17.89	12.56	20.57	0.71
D24	20.31	12.41	22.75	0.80
E11	0.00	0.00	0.00	0.00
E15	18.35	35.62	44.06	0.72
E16	17.85	32.72	40.71	0.70
E23	34.85	44.24	74.67	1.37
E25	23.08	14.81	28.15	0.91
E27	25.92	16.21	33.04	1.02
E28	44.68	46.81	96.81	1.76
E30	46.95	46.25	101.46	1.85
F12	2.52	6.63	6.78	0.10
F14	20.17	67.47	77.66	0.80
F22	51.45	112.42	178.73	2.03
F24	48.44	73.68	132.46	1.91
F25	78.66	185.42	340.43	3.10
F39	66.40	61.98	172.44	2.62
F40	100.80	147.83	402.36	3.98
F50	114.46	134.90	463.10	4.51
F52	111.06	125.30	434.31	4.38
G33	111.56	248.74	560.51	4.40
G40	153.17	336.98	924.76	6.04
G64	173.41	238.44	991.81	6.84
G80	186.66	205.33	1078.23	7.36



SEPTEMBER SPORT LAUNCH

The September 3 Sport Launch was the best attended launch in SPAAR's 7 year history. A total of 22 flyers combined to make a total of 126 flights. In addition, an NAR sanctioned Section Meet was flown in the morning, to add to the total of flights.

There were a lot of new club members at the launch, and it was great to see them. Rich "Mr. Mean Machine" Good and his son Marcus had a total of 15 flights between them. You really can't overplay the father-son or family aspect of this hobby! So it was with Casey and Andy Miller, Mike and Ron Raush, Glenn and Daniel Feveryear, Doug and Bill McClearn, and Mark and George Beever. How about a husband/wife team? There's Mark and Cindy Kamide. Brothers? Gary and Alan Rubright fit the bill.

Andy Miller flew his North Coast Patriot a couple of times on Aerotech G40s. That model was made for the G40, turning some great flights.

Ed Miller [no relation] snapped everyone's neck with a an Estes Streak powered by an Aerotech E25-10. Believe it or not, he actually got it back! Ed also got everyone's attention when he launched his North Coast Phantom 2600 on a Rocketflight F104-5 Silver Streak motor. More like a orange boom motor. A bulkhead failure led to one

of the more interesting CATOs seen and heard for a while.

George Fetter tempted fate not once, not twice, but three times by launching his scratchbuilt ASP scale model on Estes C5-3s. Incredibly, not one CATO! Glenn Feveryear then provided George with an Aerotech D21-7T, and the model really moved out for an awesome flight.

Glenn got another great flight out of his rebuilt [again] Grumpy Dog. You can almost hear the poor thing groan as it climbs out.

Cindy Kamide flew her door prize Launch Pad Anubis twice on D12s for nice flights. Her husband Mark got two beautiful flights on his Estes Broadsword powered by Aerotech E15 White Lightning motors.

Bill McClearn got some great flights, too, with is Estes Skywinder. His worked, too. Hmm. Maybe I just didn't put mine together right. Oh well.

This was really a great Sport Launch. The weather was great, the kids had fun, the dads and moms had fun. With so many new members in attendance, everyone had a chance to show off their latest models, check out what the other guy was doing, and to see some great flights.

FLIGHT LOG

September 3, 1995

<u>#</u>	<u>FLYER</u>	<u>MODEL</u>	<u>MANUF</u>	<u>MOTOR[S]</u>	<u>RESULT</u>
1	Mark Beever	Crayola	QCR	E D12-5	Good Flight
2	Daniel Fevryr	Gnome	Estes	E 1/2A3-4	Good Flight
3	Daniel Fevryr	Gnome	Estes	E 1/2A3-4	13.5s-GF
4	Daniel Fevryr	Gnome	Estes	E ?	?
5	Daniel Fevryr	Alpha III	Estes	E A8-3	Good Flight
6	Daniel Fevryr	Alpha III	Estes	E A8-3	Good Flight
7	Daniel Fevryr	Alpha III	Estes	E A8-3	Good Flight
8	Daniel Fevryr	Crayon	QCR	E C6-3	SEP
9	Gerard Hertzog	Tomcat	Estes	E C6-3	Splatcat
10	Gerard Hertzog	Mean Machine	Estes	E D12-5	Good Flight
11	Gerard Hertzog	Mean Machine	Estes	E D12-5	Good Flight
12	Gerard Hertzog	Wizard	Estes	E C6-5	Good Flight
13	Gerard Hertzog	Starfighter	?	E A8-3	Good Flight
14	Marcus Good	Mini Patriot	Estes	E A10-3	Good Flight
15	Marcus Good	Gnome	Estes	E A10-3	Good Flight
16	Marcus Good	Mini Patriot	Estes	E A10-3	Good Flight
17	Marcus Good	Gnome	Estes	E A10-3	Good Flight
18	Marcus Good	Mini Patriot	Estes	E A10-3	Good Flight
19	Marcus Good	Mini Patriot	Estes	E A10-3	Good Flight
20	Marcus Good	Mini Patriot	Estes	E A10-3	Good Flight
21	Marcus Good	Gnome	Estes	E A10-3	Good Flight
22	Doug McClearn	Bailout	Estes	E C6-5	Good Flight
23	Doug McClearn	Bailout	Estes	E C6-5	Good Flight
24	Doug McClearn	Super Shot	Estes	E C6-7	Good Flight
25	Doug McClearn	Super Shot	Estes	E B6-4	Good Flight
26	Doug McClearn	Bailout	Estes	E C6-7	Good Flight
27	Doug McClearn	Bailout	Estes	E C6-7	Good Flight
28	Doug McClearn	Super Shot	Estes	E B4-2	Good Flight
29	Casey Miller	Black Brandt	IIEstes	E D12-5	Good Flight
30	Casey Miller	Big Bertha	Estes	E B6-2	Good Flight
31	Casey Miller	Super Shot	Estes	E B6-2	Good Flight
32	Casey Miller	Alpha	Estes	E A8-5	Good Flight
33	Casey Miller	Alpha	Estes	E B6-2	Good Flight
34	Casey Miller	Super Shot	Estes	E B8-5	Good Flight
35	Casey Miller	Super Shot	Estes	E B8-5	Good Flight
36	Joshua Snyder	Skywinder	Estes	E B4-2	Good Flight
37	Joshua Snyder	Skywinder	Estes	E B4-2	Good Flight
38	Mike Raush	Air Walker	Estes	E B6-4	Good Flight
39	Mike Raush	Bull Pup 12D	Estes	E B6-4	Good Flight
40	Mike Raush	Skywinder	Estes	E B6-4	Good Flight
41	Mike Raush	Bull Pup 12D	Estes	E C6-5	No Chute
42	Mike Raush	Skywinder	Estes	E B6-4	Good Flight
43	Mike Raush	Bull Pup 12D	Estes	E C6-3	Good Flight

44	Brandon Tabutt	Phoenix	Estes	E B4-2	Good Flight
45	Brandon Tabutt	Corsair	Estes	E A8-3	Good Flight
46	Brandon Tabutt	Manta	Estes	E B6-4	Good Flight
47	Brandon Tabutt	NASA	SB	E B4-2	Good Flight
48	Brandon Tabutt	Big Bertha	Estes	E C6-5	Good Flight
49	Brandon Tabutt	Reliant	Estes	E A8-3	Good Flight
50	Brandon Tabutt	Phoenix	Estes	E C6-5	Good Flight
51	Brandon Tabutt	Darkstar	Estes	E C6-5	Good Flight
52	Ron Raush	Air Walker	Estes	E C6-5	Good Flight
53	Ron Raush	Skywinder	Estes	E C6-3	Good Flight
54	Cindy Kamide	Anubis	TLP	E D12-5	Sep
55	Cindy Kamide	Anubis	TLP	E D12-5	Good Flight
56	Mark Kamide	Mini Patriot	Estes	E A10-3	Good Flight
57	Mark Kamide	Broadsword	Estes	AT E15-4W	Good Flight
58	Mark Kamide	Saturn 1B	Cox	E D12-5	Good Flight
59	Mark Kamide	Broadsword	Estes	AT E15-4W	Good Flight
60	Glenn Fevryr	Grumpy Dog	SB	E D12-0/D12-3	Good Flight
61	Ed Miller	Spr Big Bertha	Estes	FSI F100-6	Good Flight
62	Ed Miller	Magnum	Estes	E D12-0/C6-5	Good Flight
63	Ed Miller	Streak	Estes	AT E25-10T	Whooooosh!
64	Ed Miller	Strong ARM	Aerotech	AT G64-7RMS	Great Flight
65	Ed Miller	Phantom 2600	NCR	RF F104-5SS	CATO!!!!
66	Ed Miller	Javelin	FSI	AT F52-4RMS	Good Flight
67	Ed Miller	Tekyon	SB	AT G64-4RMS	Good Flight
68	Rick Hackman	XR-55	SB	E C6-3	Good Flight
69	Rick Hackman	XR-49	SB	E C6-3	Good Flight
70	Rick Hackman	XR-54	SB	E D12-3	Good Flight
71	Rick Hackman	XR-55	SB	E D12-5	Good Flight
72	Rick Hackman	XR-64D	SB	E C6-5[2]	Unstable
73	Rick Hackman	F-3A Tiger	SB	E D12-5	Good Flight
74	Rick Hackman	F-3A Tiger	SB	E D12-5	Good Flight
75	Bill McClearen	Skywinder	Estes	E B6-4	Good Flight
76	Bill McClearen	Skywinder	Estes	E B6-4	Good Flight
77	Bill McClearen	Maniac	Estes	E E15-6	Good Flight
78	Bill McClearen	Twister	Estes	E B6-4	Good Flight
79	Bill McClearen	Maniac	Estes	E D12-5	Good Flight
80	Bill McClearen	Skywinder	Estes	E C6-5	Good Flight
81	Bill McClearen	Twister	Estes	E B6-4	Good Flight
82	Bill McClearen	Skywinder	Estes	E C6-5	Good Flight
83	Andy Miller	Patriot	NCR	AT G40-7WL	Great Flight
84	Andy Miller	Phoenix	Estes	E D12-5	Good Flight
85	Andy Miller	Patriot	NCR	AT G40-4WL	Good Flight
86	Rich Good	Mean Machine	Estes	E D12-5	Good Flight
87	Rich Good	Gnome	Estes	E A10-3	Good Flight
88	Rich Good	Alpha III	Estes	E C6-5	Good Flight
89	Rich Good	Mean Machine	Estes	E D12-5	Good Flight
90	Rich Good	Mean Machine	Estes	E D12-5	Good Flight
91	Rich Good	Mean Machine	Estes	E D12-5	Good Flight
92	Rich Good	Mean Machine	Estes	E D12-5	Good Flight
93	Alan Rubright	Alpha	Estes	E B4-4	Good Flight
94	Alan Rubright	Rainmaker	Estes	E B4-4	Good Flight

95	Alan Rubright	Rascal	Estes	E C6-5	Good Flight
96	Alan Rubright	Mega Sizz	Estes	E D12-5	Good Flight
97	Alan Rubright	Magnum	Estes	E D12-0/C6-7	Great Flight
98	Gary Rubright	NASP	Estes	E B6-4	Good Flight
99	Gary Rubright	Bailout	Estes	E B4-4	Good Flight
100	Gary Rubright	Nova Payloader	Estes	E C6-5	Good Flight
101	Gary Rubright	Athena	Estes	E B4-4	Good Flight
102	Gary Rubright	Rascal	Estes	E B6-4	Good Flight
103	Gary Rubright	Tornado	Estes	E A8-3	No deploy
104	Gary Rubright	Cajun	Estes	E C6-5	Good Flight
105	Gary Rubright	Bailout	Estes	E B6-4	Good Flight
106	Gary Rubright	NASP	Estes	E C6-5	Good Flight
107	Gary Rubright	Nova Payloader	Estes	E C6-5	Good Flight
108	Gary Rubright	Tornado	Estes	E A8-3	Good Flight
109	Bill Rhoat	Wasp	THOY	AT D15-4RMS	Good Flight
110	George Fetter	ASP	SB	E C5-3	Good Flight
111	George Fetter	ASP	SB	E C5-3	Good Flight
112	George Fetter	ASP	SB	E C5-3	Good Flight
113	George Fetter	ASP	SB	E C6-3	Good Flight
114	George Fetter	ASP	SB	AT D21-7T	Good Flight
115	George Fetter	Mirage	Aerotech	AT F25-4W	Good Flight
116	George Fetter	Mirage	Aerotech	AT F25-4W	Good Flight
117	George Fetter	Mirage	Aerotech	AT G80-7T	Good Flight
118	George Fetter	Phantom 400	NCR	AT F25-4W	Good Flight
119	George Fetter	Phantom 400	NCR	AT F25-4W	Good Flight
120	George Fetter	Astrobee-D	Aerotech	AT F40-4RMS	Good Flight
121	George Fetter	Space Clipper	Quest	E C6-3	Good Flight
122	George Fetter	Astrobee-C	Aerotech	AT F25-4W	Good Flight
123	George Beever	Tempest	NCR	AT F25-6W	Good Flight
124	George Beever	Patriot	Estes	E D12-7[4]	Good Flight
125	George Beever	Maxi Force	Estes	E D12-7[3]	Good Flight
126	George Beever	Maxi Alpha	SB	E D12-7	Good Flight

Launch StatisticsMotor Usage:

Models Flown:	113	Estes	
51	Estes	13	Aerotech Single Use
1	Quest	5	Aerotech RMS
4	North Coast [NCR]	1	Flight Systems Inc.
1	The Launch Pad [TLP]	1	Rocket Flight
4	Aerotech		
7	Scratchbuilt [SB]	2	1/2A
1	THOY	19	A
2	QCR	26	B
1	Cox	32	C
1	Flight Systems [FSI]	33	D
1	Unknown	4	E
		10	F
		1	G
		1	Unknown

Sport Launch - August 6, 1995

by Doug Gardei

[Editor's note: Due to weird weather on August 6, many members, including the prez and yours truly, figured nobody would show up to fly. Not!]

Even though there was a threat of rain, five diehards showed up for the August Sport launch. However, no club officers showed up. [so? - editor] Luckily, Ed Miller came and had his launch system, and combined with Doug's 1/4-inch rod, we were able to launch.

After we flew a few models, the rocket gods smiled and pushed the rain clouds away and summoned some more rocketeers and their families to attend the launch. Since there were no club officers at the launch [enough already!-editor] and there were no flight cards, your author didn't get the names of all the families that showed.

George Fetter from Mountainside Hobbies flew his NCR Phantom 4000 at least two time, once on an Aerotech G40 and another time on an F40 reload. All were great flights. George also flew his Aerotech Astrobee D on a G40 and an Estes Terrier-Sandhawk on an Aerotech E11 reload, which crashed after a separation.

Doug Gardei pushed his whimpy 18mm blackpowder models aside and burned up all of his D through G motors. Doug flew his

Phantom 4000 on a G40 and was recovered from the corn. He had several nice flights with his Broadsword, D powered Jupiter-C, Initiator, Super Big Bertha, and Strong ARM. Then the rocket gods punished him for not coming to the last launch by crashing his Shadow after a cool flight on an Aerotech E11. Then his Astrobee-D was smashed like an eggshell after a fast flight on an F52. After that, his Super Big Bertha suffered major burns [or a hawkeye pierce-editor] when the E11's forward closure became a nozzle.

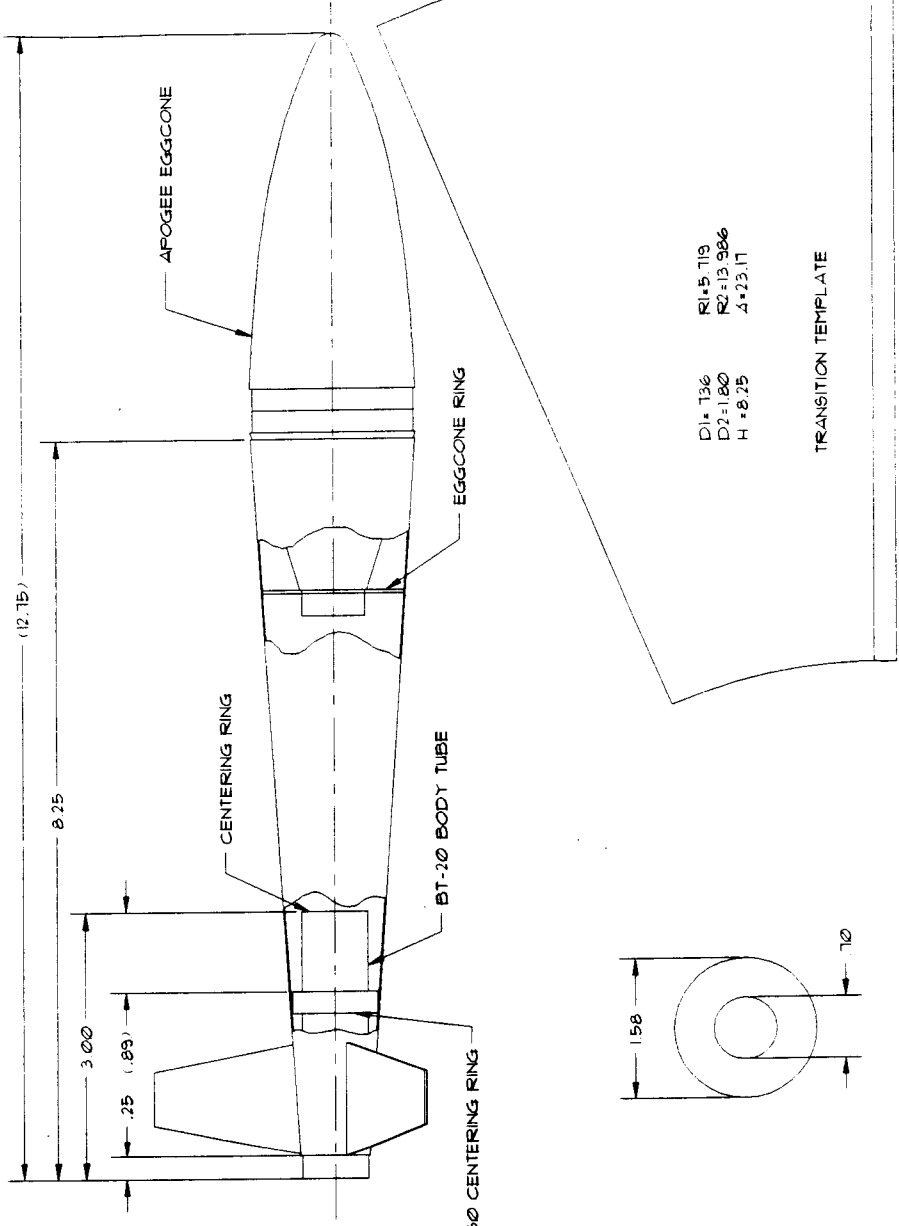
Ed Miller flew his Micro UFO on an A10. Then he flew his Flight Systems Hercules on an F100. Then his G64 blew a nozzle on his last flight attempt.

There were several other flights, from Mean Machines, Mini Cobras, Mini Patriots, an Airwalker, Sparrows, and a Reliant. Unfortunately, I didn't catch the names of the persons who flew them and what motors they used.

Overall, I think this launch was a success. If you flew any models, but your name was not mentioned, please write and tell your story. See you at the next launch.

NOTES:

1. SHROUD TO BE FABRICATED FROM MAGAZINE COVER
2. RECOMMENDED MOTOR: APOGEE C10-1, ESTES C6-5
3. USE 11016 KEVLAR FOR SHOCK CORD. ATTACH SHOCK CORD AROUND THE MOTOR TUBE CENTERING RING USING EPOXY
4. AIRFOIL FIN. COAT WITH ONE COAT OF CYANOACRYLATE AND SAND SMOOTH WITH 400 GRIT SAND PAPER
5. USE A REINFORCED 18" DIA PARACHUTE
6. WEIGHT w/o MOTOR + EGG: 25g



D1 = 1.36
D2 = 1.80
H = 8.25

R1 = 5.719
R2 = 13.986
A = 23.17

TRANSITION TEMPLATE

EGGCONE RING
.031 THK PLYWOOD

FIN
.031 THK PLYWOOD
MAKE 3

0 1" 2"

18mm EGGLOFT
ALTITUDE

EGG18

SCALE 1/1

SHEET 1 OF 1

THIS IS A REDUCED
PRINT IF LESS THAN
11" x 22"

ZONE	REV	DESCRIPTION	DATE	APPROVED

EGG18

SOUTHERN PENNSYLVANIA AREA ASSOCIATION OF ROCKETRY

SECTION 503

SPAARSEC-XIII Plus

Results

<i>1/2A SD (MR)</i>	FLT1	FLT2	FLT3	TOTAL	PLACE	PTS
Glenn Feveryear	MAX	45.22	MAX	165 sec	1	120
Flirt'n w/Disaster	DQ(Sep)	34.50	35.90	71 sec	2	144
Bill Rhoat	DQ(Uns)	-	-	DQ	-	-

<i>B ELA</i>	FLT1	FLT2	BEST	PLACE	PTS
Glenn Feveryear	54.75m	106.1m	106m	1	190
Flirt'n w/Disaster	DQ(Egg)	69.29m	69m	2	114

<i>1/2A ALT</i>	FLT1	FLT2	BEST	PLACE	PTS
Glenn Feveryear	162.88m	134.88m	163m	1	90
Flirt'n w/Disaster	133.63m	133.83m	134m	2	54
Bill Rhoat	109.80m	-	110m	3	36

Total Points

Glenn Feveryear	400
Flirt'n w/Disaster	240
Bill Rhoat	36

THE SOUTHERN PENNSYLVANIA AREA ASSOCIATION OF ROCKETRY

Membership Application

Name _____ Address _____
Phone _____ Age _____ Date of Birth _____
NAR # _____ Tripoli # _____

I have been flying rockets for _____ years. I have not yet flown
a model rocket _____.

DUES: 18 years of age or older: \$10 per year.

15,16,17 years of age: \$7 per year.

16 and under: \$5 per year

Family Plan: Oldest member joins at full price, all other family
members 1/2 price; one issue of the Countdown per family.

Return this form to: SPAAR, PO Box 127, Reamstown, PA 17567.

THE NATIONAL ASSOCIATION

OF ROCKETRY

For more information on the
NAR, write:

NAR Headquarters
PO Box 177
Altoona, WI 54720
1-800-262-4872

TRIPOLI ROCKETRY ASSOCIATION

[HIGH POWER ROCKETRY]

For more information on the
TRA, write:

Tripoli Rocketry Assn.
PO Box 339
Kenner, LA 70063-0339

