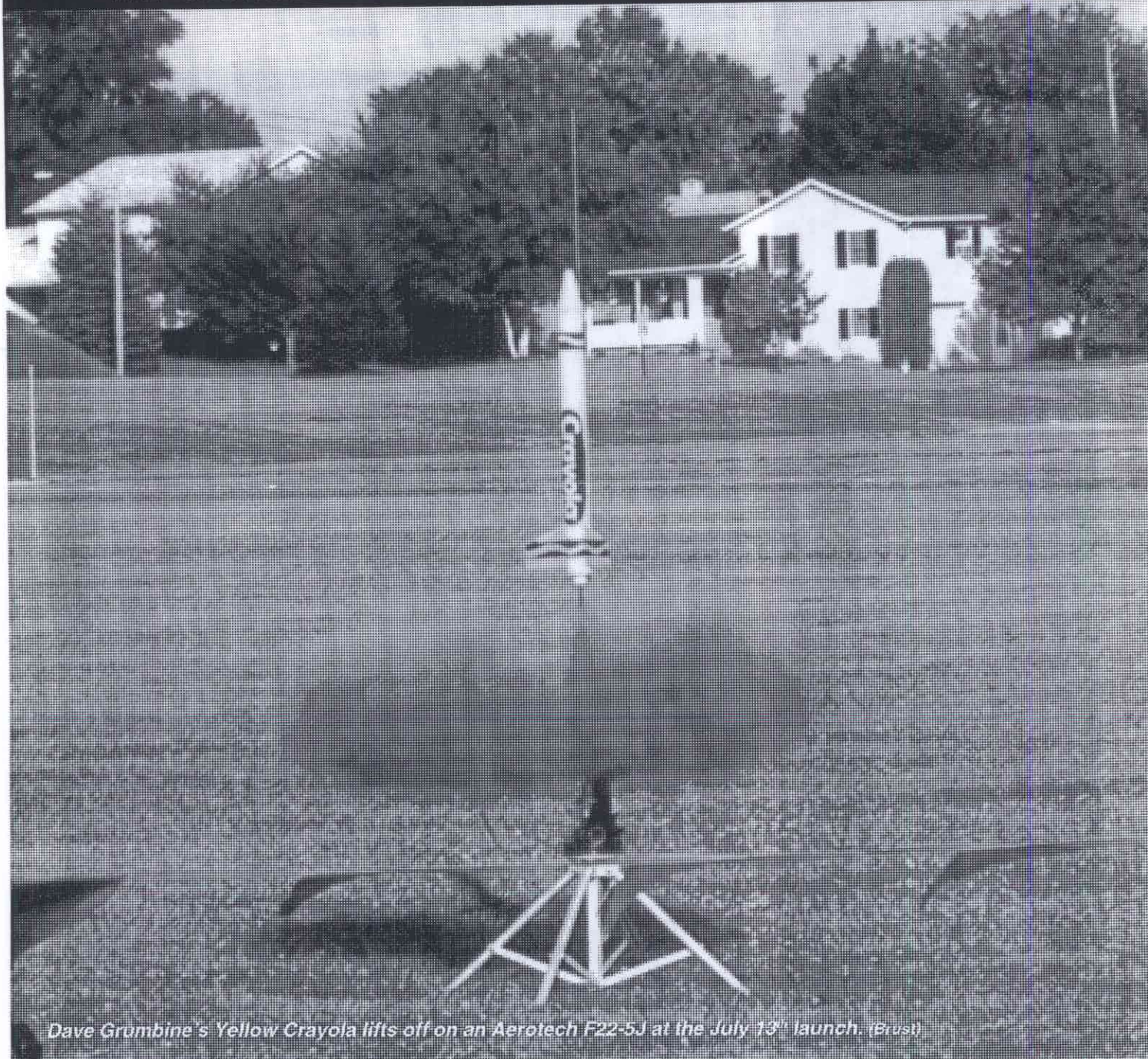


COUNTDOWN

Official Newsletter of SPAAR

THE SOUTHERN PENNSYLVANIA AREA ASSOCIATION OF ROCKETRY



Dave Grumbine's Yellow Crayola lifts off on an Aerotech F22-5J at the July 13th launch. (Brusi)

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COUNTDOWN

Volume 10, Issue 4
July/August 1997

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Secretary-Treasurer

George Beever

Section Advisor

Glenn Feveryear

Member at Large

Mark Kamide

Tripoli Prefect

Ed Miller

Newsletter

George Beever, Randy Brust

COUNTDOWN is the newsletter of SPAAR, the Southern Pennsylvania Area Association of Rocketry, NAR Section #503, as well as Tripoli Susquehanna #71. **COUNTDOWN** is published 6 times a year for the benefit of SPAAR club members. Any information contained in **COUNTDOWN** may be used as long as proper credit is given. Please address all correspondence to:

SPAAR

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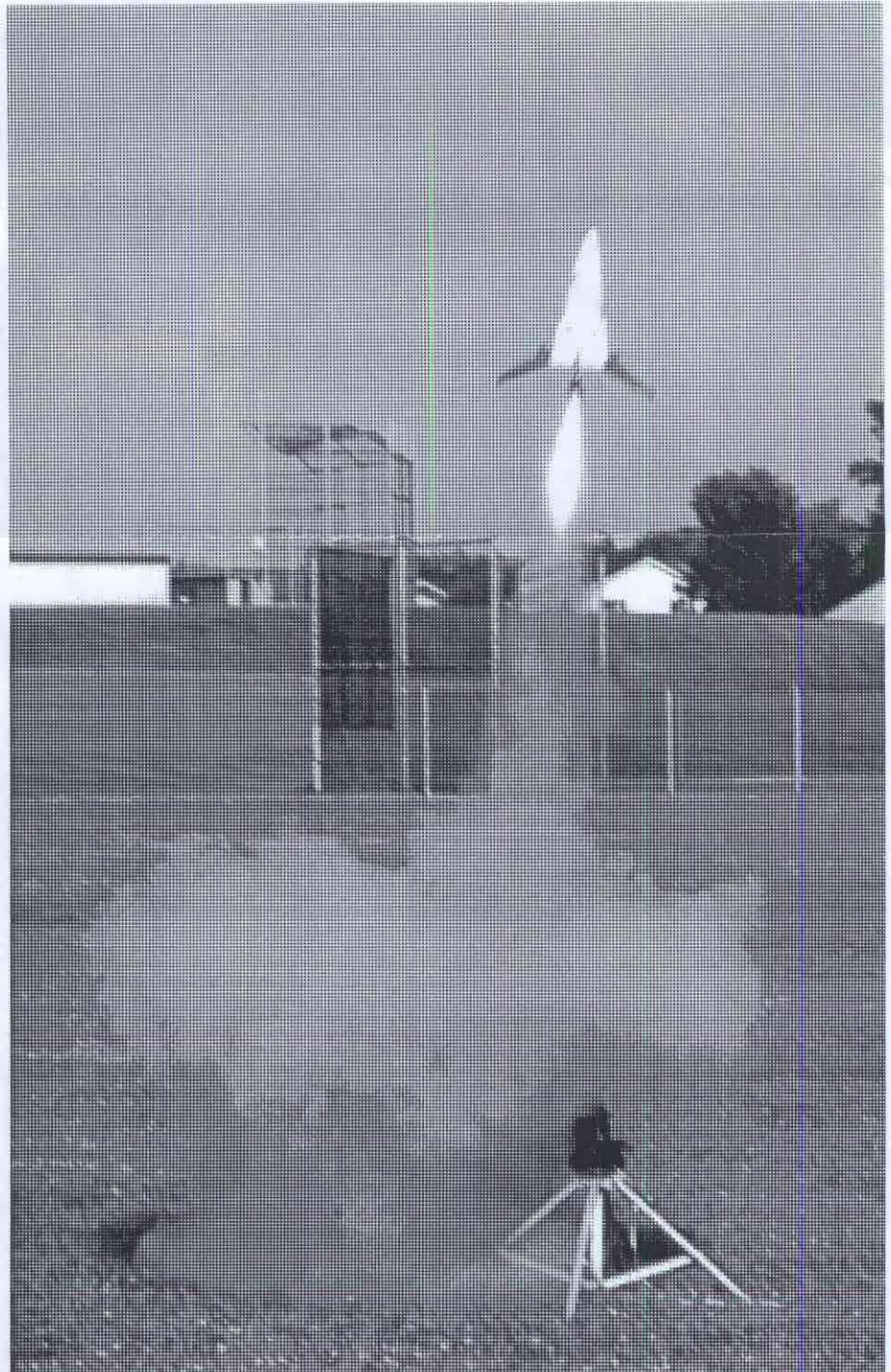
**The Editors' Corner**

This month, thanks go out to Rick Hackman, Glenn Feveryear, Ed Miller, and Mark Kamide for contributing to this issue of the Countdown. Rick and Glenn submitted pictures for the SPAAR launches, Ed contributed to the Section News Notes, and Mark supplied material

for the Winter Workshop Program.

A note for internet users. Starting with the special RAMTEC issue, the electronic versions of the Countdown on the World Wide Web are now in full color! Check it out at: <http://members.aol.com/r Brustee/index.html>.

Randy



Mark Kamide's MK4 Lander is off on a G40-4W at the July 13th launch. (Brust)

Section News Notes

by George Beever & Randy Brust

Ed Miller gets Level 3 Cert:

Ed Miller, SPAAR member and our Tripoli Prefect, recently attained his Level 3 High Power Certification with, get this, a flying saucer. And not just any flying saucer, but a *48 inch, 50 pound flying saucer* powered by an Aerotech M1939! The flight, remember this is an M motor we're talking about here, went about 800-1000 feet high! Ed used Adept timer deployment with a Pratt radio backup. We hope to have the full story with pictures in the next issue. Congratulations Ed!

Additional Kirkwood Farms Info:

To make finding Kirkwood Farms easier, Roger Dwyer will be placing a sign at the end of the farm's driveway on Providence Road. Roger says that the sign should say **SPAAR** and/or **Launch** on it. Remember that Kirkwood Farms is the location of the September and October launches.

Raffle Results:

The raffle to help pay for the launch system improvements was held at the August 31st Sport Launch. All told, the raffle raised \$60. A number of items were not claimed. Here is a list of prizes, along with the winning ticket numbers:

581264 - QCR Moving Piston kit
 581265 - QCR Egglofter kit
 581267 - QCR wadding
 581269 - Alfa Romeo model car kit
 581270 - Estes Astrocram 110 kit
 581277 - JU-88C plastic aircraft kit

If you have any of these tickets, call George Beever at 717-733-4170 prior to October 31, 1997 to claim your prize. All unclaimed prizes will be *recycled* for a future raffle.

SPAARSPAM-8:

Don't forget our annual tailgate picnic and launch, to be held on Sunday,

November 2, from 1PM to 5PM at Cocalico High School. Bring something tasty to share with others. Bring your own drinks and eating utensils (unless, of course, you don't bother with those things). This year's *event* will be: *Best Rocket Photo from 1997*. The judge will be Randy Brust, who claims the right to print the winning photo in the Countdown. The prize? The winner gets to pick out whatever Ed Miller model they want, free! OK, just dreaming. Uh... well... we haven't figured a prize out yet, but we will, honest!

1998 SPAAR Elections:

Now hear this, now hear this! To forestall any claims (cue laugh track here) that things are *done in secret*, nominations for the 1998 Board of Directors will be taken at the November 21st meeting. Those positions are: President, Vice-President, Secretary/Treasurer, Member-at-Large, and Section Advisor. The elections themselves are done by written ballot, counted at the December meeting.

Winter Workshop Program:

The Winter workshop Program was begun during the winter of 1988-89 as a way to share information among club members and to keep active as a club during the cold weather months. Topics covered included Basic Construction and Finishing, Competition Rocketry, High Power Rocketry Construction Techniques, Scale Building Techniques, and Old Rocket Junk. In recent years, most Workshops have been *Work On what Ya' Brung* affairs, with no real theme.

Mark Kamide has taken on the challenge of reinvigorating this program. Mark has devised a kit and building plan for a 4" diameter Mercury-Redstone model. A plan and parts list is featured in this newsletter. Simply circle or note the items that you do **not** need, and send the form, along with payment to Mark. He'll take care of the rest. The kits can be built at the January, February, and March workshops, which follow the meetings on Saturday mornings. Here's a hint: order a second Mercury capsule, set of tower parts, centering rings, and motor mount tube, and you'll be able to build a Little Joe I. Have

your orders to Mark by October 31st to ensure that the kits will be available for the January workshop.

Reloadable Motor Course Offered:

Atlantic Coast Tripoli and Thunder Flame Associates are presenting the class: *A Basic Course in Propellant Processing for a Reloadable Motor System*. The course will cover the design, formulation, mixing, casting, curing, and mechanical processing of solid propellant grains, and ignitor formulations and fabrication. The course will take place November 8th and 9th in Orangeburg, SC and is offered to Tripoli members with at least a level 2 certification. For more information, contact James Mitchell at 901-986-2893 or Sonny Thompson at 804-733-8500.

Upcoming SPAAR Events:

Friday, September 19th, 1997 - SPAAR Monthly Meeting, 7PM to 9PM, APRIA Community Room, Lancaster, PA.

Sunday, September 28th, 1997 - SPAAR Sport Launch, 9AM to 5PM, Kirkwood Farms, Chester County, PA.

Friday, October 17th, 1997 - SPAAR Monthly Meeting, 7PM to 9PM, APRIA Community Room, Lancaster, PA.

Sunday, October 19th, 1997 - SPAAR Sport Launch, 9AM to 5PM, Kirkwood Farms, Chester County, PA.

Sunday, November 2nd, 1997 - SPAAR Sport Launch/SPAARSPAM, 1PM to 5PM, Cocalico High School, Denver, PA.

Other Upcoming Events:

Sunday, September 14th, 1997 - METRA High Power Launch, 10AM to 5PM, Vernon, NJ. Up to K motors. 5000 ft. waiver. Contact Ted Apke at 201-631-1628.

Saturday, September 20th thru Sunday, September 21st, 1997 - MARS Finger Lake Fall Classic VII Regional Meet, Geneseo, NY. Contact John DeMar at 315-451-6470. **CD**

Section Meeting Minutes

by George Beever

June 20, 1997

Present: G. Beever, R. Dwyer, G. Feveryear, D. Greene, M. Kamide, D. O'Neal, D. Weinhold, J. Yost.

Committee Reports:

Section Advisor: Glenn Feveryear advised that he has received a copy of the NAR Section Manual, and will make it available to anyone who wants to see it.

HPR: Roger Dwyer, for Ed Miller, reported that waivers will be sought for the Chester County site for the following dates: September 21st, September 28th, and October 19th.

Competition: Glenn advised on an upcoming NAR contest, NICE-19, to be hosted by NOVAAR.

Old Business: Glenn reported that the launch equipment that was ordered from Vaughn Brothers has arrived and will be put into use soon.

New Business: Mark Kamide proposed reinstating *special* launches, as had been the case in the past. After discussion, he and Roger Dwyer volunteered to coordinate this program, with the first few special launches being: August 31st, Best Sport Scale; September 28th, Best Non-Ed Miller Paint Job; and October 19th, Best Cluster. The judging will be done by Mark and Roger, and will be totally subjective. Mark advised that the judges can be bought and/or bribed.

Mark Kamide then gave a presentation on his *Mark IV Lander* model, and offered to distribute the plans to those who attend the next meeting. CD

July 18, 1997

Present: G. Beever, R. Dwyer, G. Feveryear, R. Feveryear, D. Greene, R. Hackman, M. Kamide, G. Kulp, D. O'Neal,

D. Weinhold, J. Yost.

Committee Reports:

Section Advisor: Glenn reported on a new section that has been formed in the upstate New York area.

HPR: Roger Dwyer, for Ed Miller, advised he is still waiting on a reply on his waiver application reported on at the last meeting.

Competition: Glenn Feveryear provided information on upcoming contests: MARS-22, September 13th-14th, Manassas, VA. NOVAAR. Events: C Eggloft Altitude, B Payload, 1/2A Boost Glide, 1/2A Rocket Glide, 1/2A Parachute Duration, Parachute Spot Landing. ECRM-25, May 16th-17th, 1998, Middletown, MD. NARHAMS. Events: B Eggloft Duration, 1/2A Flex Wing, 1/4A Scale Altitude, 6C Cluster Altitude.

New Business: An extensive discussion was held regarding the incident that occurred at the July 13th launch, in which a G powered model landed in the back yard area of a home in the housing development across the street from Cocalico High School. The model had an erratic flight path, and its recovery system did not deploy. The homeowner complained to the Denver Borough Council, the Cocalico School Board, and the Cocalico School District Administration. On Tuesday, July 15th, the club was advised by the District that rocket launching would be prohibited. This was later rescinded, providing that the club confine its launch activities to the west side of the high school, and review the July 13th incident, as well as the club's policy on motor power limits.

Two major issues were discussed: 1) what will the club do regarding power limits for the August 3rd launch, and 2) site insurance for Cocalico High School.

Regarding power limits, it was decided to voluntarily limit ourselves to a maximum 20 N-s, black powder only, for August 3rd. A full discussion on what will be done in the future will be held at the August 15th meeting. On the insurance issue, several members expressed surprise that the club did not already have site

insurance at Cocalico. Section Advisor Feveryear stated that we have *section insurance* through the NAR, but we only have *site* insurance for Allentown College for RAMTEC. Motion made by Yost, seconded by Kamide, to immediately obtain site insurance for Cocalico High School. Motion passed. Glenn will handle the matter through the NAR. CD

August 15, 1997

Present: G. Beever, G. Feveryear & family, D. Greene, R. Hackman, M. Kamide, D. O'Neal, A. Shepard, R. Shepard, T. Rossi (guest), D. Weinhold, J. Yost, M. Zimmerman.

Committee Reports:

Section Advisor: Glenn stated he is working with NAR HQ on the site insurance.

HPR: It was reported that FAA waivers have been obtained for the Chester County site for September 21st, September 28th, and October 19th. Motion made by Dale Greene, seconded by Rita Feveryear, to move the September 28th and October 19th Sport Launches from Cocalico High school to Chester County. Motion passed. Membership to be advised.

Competition: Glenn discussed the MARS-22 meet, September 13th-14th. Also, Pittsburgh Space Command is hosting a Regional Meet on October 19th. Events: 1/4A Helicopter Duration, 1/4A Flex Wing Multi-round, D Eggloft Duration, Random Duration.

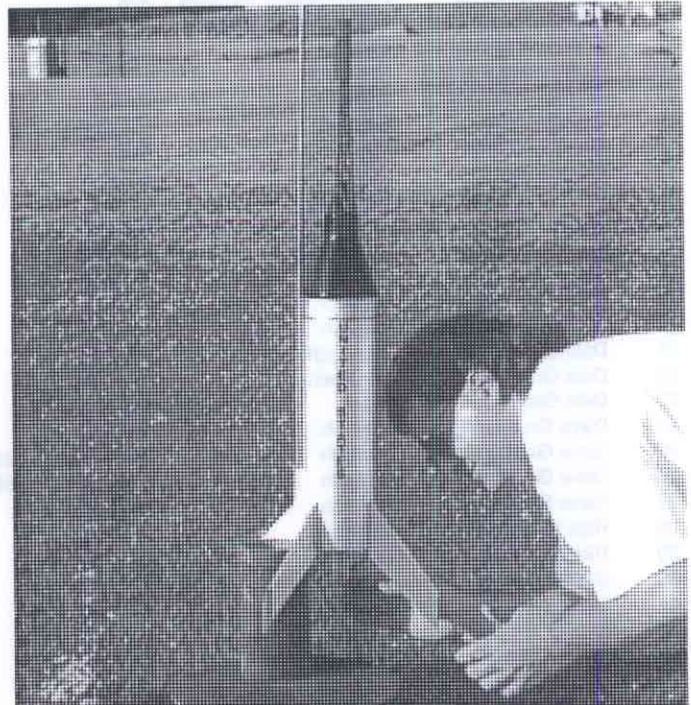
Old Business: Mark Kamide stated that trophies will be awarded to the winners of the special events at future launches. John Yost and Rita Feveryear are working on locating a site for the January family dinner.

New Business: After discussion, the decision was made to limit all future flights from Cocalico High School to 80 N-s (full F) in any combination, black powder or composite, and models will weigh no more than 30 ounces. This self-imposed limit will be reviewed at the end of each calendar year. CD

SPAAR Sport Launch June 29th, 1997 by Randy Brust



Guy DeStefano readies his IBIS with a G64-7W. (Beever)



Mark Kamide hooks up an F50 in his Little Joe I. (Beever)



Brian Royer with his Thoy Falcon on a G75. (Beever)



Robin Shepard's PML Io is off on a G40-4W. (Hackman)

Flight Log 6-29

#	Flyer	Manufacturer	Model	Motors	Result
1	Steven Bathurst	Aerotech	Strong ARM	Aerotech F14-4J	Prang
2	George Beever	Estes	Fat Boy	Estes C6-3	Good Flight
3	George Beever	Launch Pad	Hawk	Estes D12-3	Good Flight
4	George Beever	Estes	Impulse	Estes D12-5 (2)	Good Flight

5	George Beever	Aerotech	Initiator	Aerotech F20-4W	Good Flight
6	Mark Beever	Estes	R2-D2	MRC C6-3	Prang
7	LeRoy Bonawitz	Mountainside Hobbies	V-2	Estes D12-3	Good Flight
8	LeRoy Bonawitz	Mountainside Hobbies	V-2	Estes D12-3	Good Flight
9	Andrew Buffenmyer	Estes	Banshee	Estes C6-5	Good Flight
10	Andrew Buffenmyer	Estes	F-22	Estes C6-5	Good Flight
11	Andrew Buffenmyer	Estes	F-22	Estes B6-2	Good Flight
12	Guy DeStefano	Scratch	Centipede	Aerotech RMS G64-7W	Good Flight
13	Guy DeStefano	Thoy	IBIS	Aerotech RMS G64-7W	Good Flight
14	Guy DeStefano	Scratch	Juice	Aerotech RMS G64-7W	Good Flight
15	Guy DeStefano	Scratch	Juice	Aerotech G40-4W	Good Flight
16	Guy DeStefano	LOC/Precision	Legacy	Aerotech G40-10W	Good Flight
17	Guy DeStefano	Rocket R&D	Peacock	Aerotech RMS G33-7J	Good Flight
18	Glenn Feveryear	Scratch	Astrobee 1500	Aerotech F25-6W/Apogee B2-0(2)	Good Flight
19	Glenn Feveryear	Scratch	C SD	Apogee C4-7	132s-Good Flight
20	Glenn Feveryear	Scratch	D SD	Apogee D3-5	Good Flight
21	Dale Greene	Aerotech	1/2 Arreaux	Aerotech RMS G64-7W	Good Flight
22	Dale Greene	Aerotech	1/2 Arreaux	Aerotech RMS F40-7W	Good Flight
23	Dale Greene	Estes	Magnum	Estes D12-0/C6-7	Good Flight
24	Dave Grumbine	Scratch	Red Eye	Aerotech RMS E18-4W	Good Flight
25	Dave Grumbine	Scratch	Rear Facing Astrocam	Estes C6-3	Good Flight
26	Dave Grumbine	Scratch	Rear Facing Astrocam	Estes D12-3	Good Flight
27	Dave Grumbine	Scratch	Yellow Crayola	Aerotech RMS F22-5J	Good Flight
28	Rick Hackman	Scratch	F3A Tiger	Estes D12-5	Good Flight
29	Rick Hackman	Scratch	Lil Squeecker	Estes 1/2A3-2T	Good Flight
30	Rick Hackman	Scratch	T-1	Estes B4-4	Separation
31	Mark Kamide	Quest	Delta Clipper	Estes C6-3	Good Flight
32	Mark Kamide	Scratch	Little Joe 1	Aerotech F50-6T	Good Flight
33	Mark Kamide	Scratch	Viking 10	Aerotech F50-4T	Good Flight
34	Corey Kline	Estes	Alpha	Estes A8-3	Good Flight
35	Corey Kline	Estes	Alpha	Estes A8-3	Good Flight
36	Corey Kline	Estes	Alpha	Estes C6-5	Good Flight
37	Corey Kline	Estes	Bailout	Estes C6-5	Good Flight
38	Corey Kline	Rocket R&D	Sparrowhawk	Aerotech RMS F40-7W	Good Flight
39	Corey Kline	Rocket R&D	Sparrowhawk	Aerotech RMS F40-7W	Good Flight
40	Gary Kulp	Estes	Athena	Estes A8-3	Good Flight
41	Gary Kulp	Estes	F-22	Estes C6-3	Good Flight
42	Gary Kulp	Estes	F-22	Estes C6-3	Good Flight
43	Gary Kulp	Estes	Helicopter	Estes C6-5	Good Flight
44	Gary Kulp	Estes	Python	Estes D12-5	Separation
45	Gary Kulp	Mountainside Hobbies	V-2	Estes D12-5	Good Flight
46	Ed Miller	Scratch	Armacron	Estes C6-7 (3)	Good Flight
47	Ed Miller	North Coast Rocketry	Eliminator	Aerotech F25-4W	Good Flight
48	Ed Miller	Launch Pad	Sidewinder	Aerotech RMS E18-4W	Good Flight
49	Ed Miller	Estes	Sidewinder	Aerotech RMS D24-4T	Good Flight
50	Ed Miller	Scratch	Tekyon	Vulcan G200-5	Good Flight
51	Ed Miller	Estes	Venus Probe	Aerotech RMS D13-4W	Good Flight
52	Dave O'Neal	Estes	Silver Comet	Estes D12-5	Good Flight
53	Dave O'Neal	Centuri	Sky Lab	Estes C6-3	Good Flight
54	Melissa O'Neal	MRC	ASP-1	Estes A10-3T	Separation
55	Melissa O'Neal	Custom	Metrix	Estes A10-3T	Good Flight
56	Melissa O'Neal	Custom	Metrix	Estes 1/2A3-4T	Good Flight
57	Shannon O'Neal	Estes	ARV Condor	Estes B4-2	Good Flight
58	Shannon O'Neal	Estes	ARV Condor	Estes C6-3	Good Flight
59	Shannon O'Neal	Estes	Stinger	Estes B4-4	Separation
60	Tom Rhymer Jr.	Estes	Bandit	Estes B6-4	Good Flight
61	Tom Rhymer Jr.	Estes	Big Bertha	Estes C6-5	Good Flight
62	Tom Rhymer Jr.	Estes	Corkscrew	Estes B6-2	Good Flight
63	Tom Rhymer Jr.	Estes	Corkscrew	Estes C6-3	Rocket Lock
64	Tom Rhymer Sr.	Estes	Corkscrew	Estes C6-3	Good Flight
65	Tom Rhymer Sr.	Estes	Delta Clipper	Estes D12-0/D12-7	Good Flight
66	Tom Rhymer Sr.	Estes	Phoenix	Estes D12-3	Separation
67	Tom Rhymer Sr.	Estes	Phoenix	Estes D12-3	Good Flight
68	Tom Rhymer Sr.	Mountainside Hobbies	V-2	Aerotech E15-7W	Good Flight
69	Brian Royer	Scratch	Blue Plate Special	Aerotech RMS G64-7W	Good Flight
70	Brian Royer	Thoy	Falcon	Aerotech RMS G75-?J	Good Flight
71	Brian Royer	Scratch	Mile High	Aerotech G25-15W	Good Flight
72	Brian Royer	Estes	Mosquito	Estes 1/2A3-2T	Search & Rescue
73	Brian Royer	Estes	Ninja	Estes A3-4T	Good Flight
74	Brinton Schlegel	Estes	Maniac	Estes D12-5	Good Flight

75	Brinton Schlegel	Estes	Mean Machine	Estes D12-5	Good Flight
76	Brinton Schlegel	Estes	Mean Machine	Estes D12-5	Good Flight
77	Brinton Schlegel	Estes	Silver Comet	Estes D12-5	Good Flight
78	Jillane Schlegel	Estes	Cobra	Estes A3-4T	Good Flight
79	Jillane Schlegel	Estes	Flash	Estes C6-5	Good Flight
80	Jillane Schlegel	Estes	Sizzler	Estes C6-3	Good Flight
81	Robin Schlegel	Estes	Cobra	Estes A10-3T	Good Flight
82	Robin Schlegel	Estes	Flash	Estes B6-4	Good Flight
83	Robin Schlegel	Estes	Gemini DC	Estes B6-4	Good Flight
84	Robin Schlegel	Estes	Helicat	Estes C6-5	Good Flight
85	Dorran Schultz	Rocket R&D	Hornet	Aerotech F50-9T	Lawn Dart
86	Alan Shepard	Mountainside Hobbies	Aerobee 350	Aerotech RMS F24-7W	Doink
87	Alan Shepard	Estes	Big Bertha	Estes C6-3	Good Flight
88	Alan Shepard	Estes	Big Bertha	Estes C6-3	Separation
89	Alan Shepard	Estes	Hyjax	Estes C6-5	Good Flight
90	Alan Shepard	Estes	Ninja	Estes A10-3T	Good Flight
91	Alan Shepard	Estes	Ninja	Estes A10-3T	Good Flight
92	Alan Shepard	Estes	Ninja	Estes A10-3T	Good Flight
93	Alan Shepard	Estes	Yellow Jacket	Estes C6-5	Good Flight
94	Robin Shepard	LOC/Precision	Aura	Aerotech G40-4W	Good Flight
95	Robin Shepard	Estes	Firestreak	Estes C6-3	Good Flight
96	Robin Shepard	Estes	Firestreak	Estes C6-3	Good Flight
97	Robin Shepard	Estes	Gnome	Estes A10-3T	Good Flight
98	Robin Shepard	Public Missles	Io	Aerotech G40-4W	Good Flight
99	Robin Shepard	Estes	Ninja	Estes A10-3T	Good Flight
100	Courtney Sombers	Estes	Sidewinder	Estes C6-5	Good Flight
101	Frank Sombers	Scratch	Arrow	Estes D12-7	Good Flight
102	Frank Sombers	Scratch	Mini SR-71	Estes A10-3T (2)	Hmmm...
103	Frank Sombers	Mountainside Hobbies	V-2	Aerotech E30-7T	Good Flight
104	Tim Spader	LOC/Precision	Stovi	Aerotech E15-4W	Prang
105	Brandon Wolf	Estes	Yellow Jacket	Estes A8-3	Separation
106	Matt Zimmerman	Scratch	CDR	Estes C6-5	Good Flight
107	Matt Zimmerman	Estes	Nova Payloader	Estes C6-5	Good Flight
108	Matt Zimmerman	Mountainside Hobbies	Sandia Sandhawk	Aerotech RMS G64-4W	Splat
109	Matt Zimmerman	Quest	Whiplash	Estes C6-5	Good Flight

Launch Statistics - June 29th, 1997

Number of Flyers: 31 Weather: Warm, Breezy

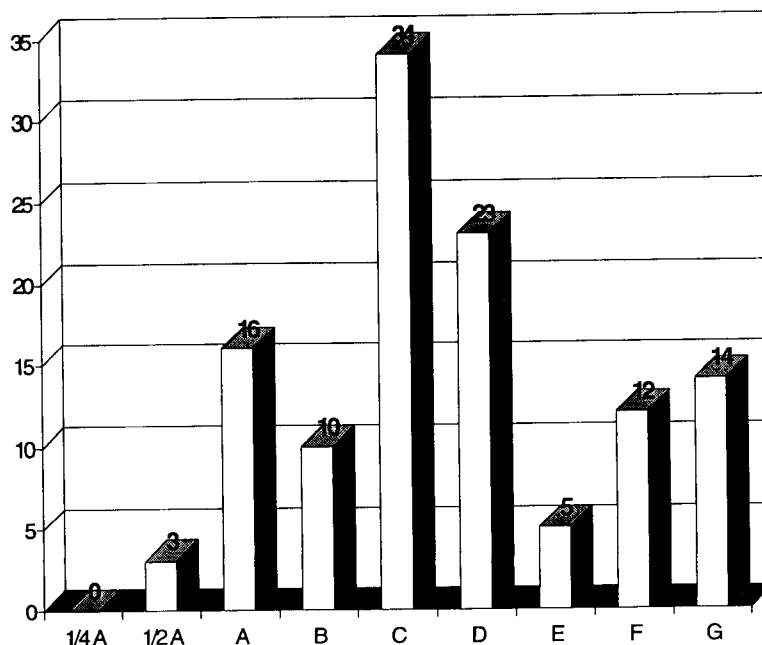
Models Flown:

Estes	46
Scratchbuilt	20
Mountainside Hobbies	6
LOC/Precision	3
Rocket R&D	3
Launch Pad	2
Quest	2
Thoy	2
MRC	1
North Coast Rocketry	1
Public Missles	1

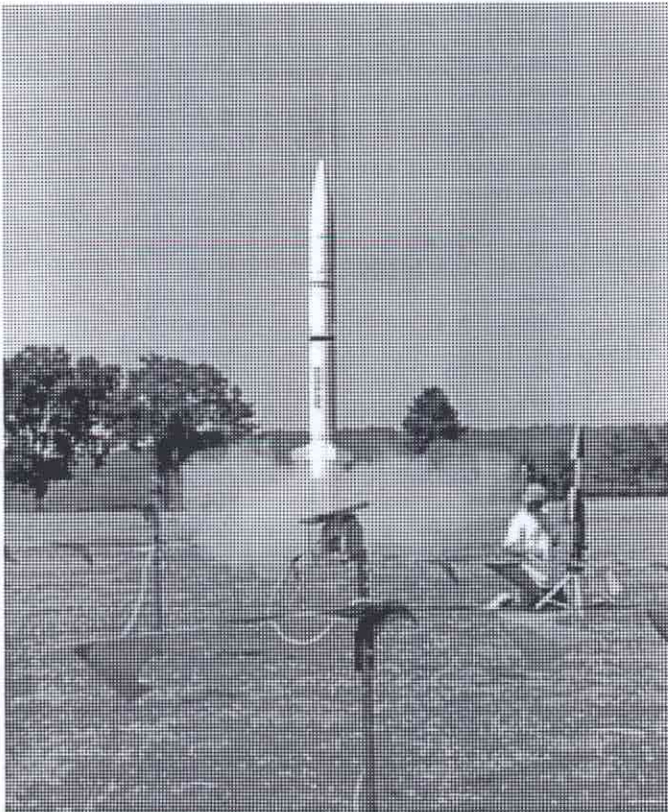
Motor Usage:

Estes	79
Aerotech RMS	17
Aerotech	15
Apogee	4
MRC	1
Vulcan	1

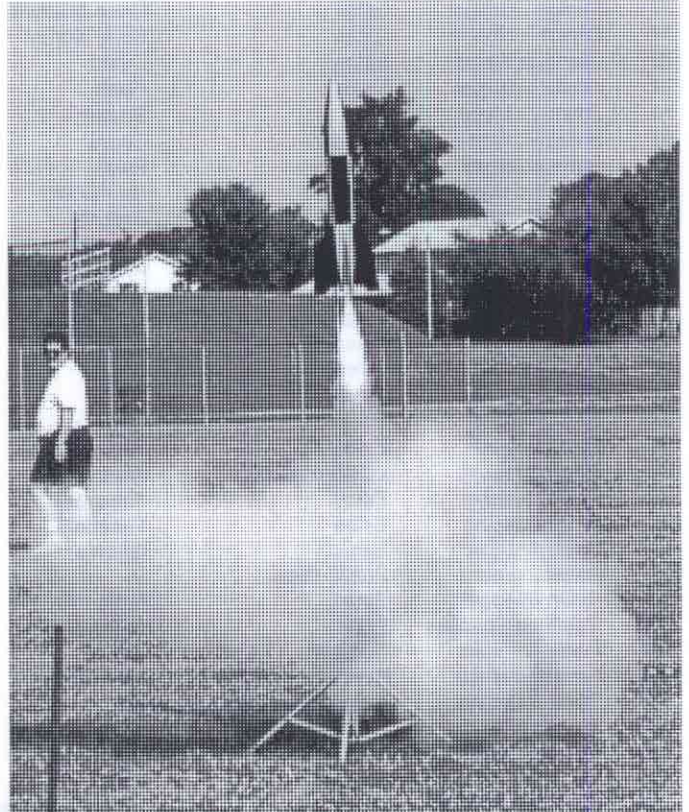
Impulse Distribution:



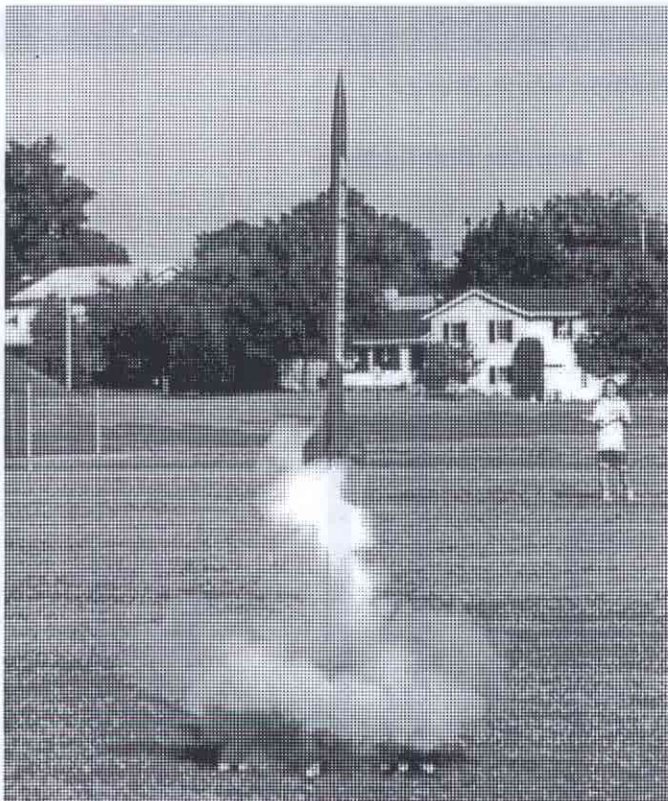
SPAAR Sport Launch July 13th, 1997 by Randy Brust



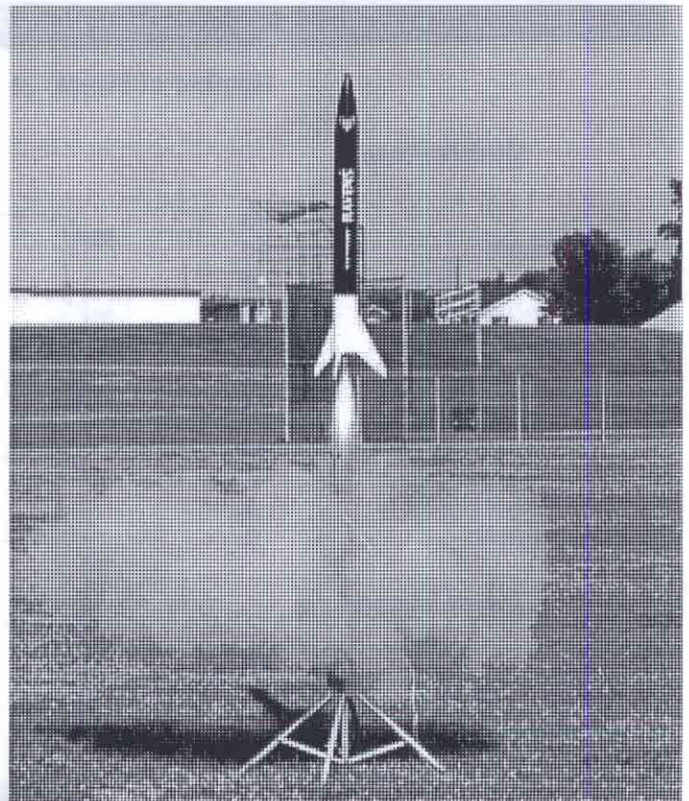
Daniel Feveryear's ASRAAM on 2 D12-5s. (Feveryear)



Matt Weaver's Mountainside V-2 with a G64-4W. (Brust)



Matt Zimmerman's John Deere on a G40-4W. (Brust)



George Beever's "The Raven" on an F25-4W. (Brust)

Flight Log 7-13

#	Flyer	Manufacturer	Model	Motors	Result
1	George Beever	Mountainside Hobbies	ADR 4.0	Aerotech F25-4W	Good Flight
2	George Beever	Mountainside Hobbies	ASP	Aerotech D21-7T	Hard Landing
3	George Beever	LOC/Precision	Aura	Flight Systems F100-6	Good Flight
4	George Beever	Scratch	Saturn V	Estes C6-5	Good Flight
5	LeRoy Bonawitz	Mountainside Hobbies	V-2	Estes D12-3	Good Flight
6	LeRoy Bonawitz	Mountainside Hobbies	V-2	Estes D12-3	Good Flight
7	Randy Brust	Scratch	Dart-24	Aerotech RMS F24-7W	Good Flight
8	Randy Brust	Scratch	Dart-24	Aerotech RMS F24-7W	Good Flight
9	Guy DeStefano	Scratch	Juice	Aerotech RMS G64-7W	Good Flight
10	Guy DeStefano	Scratch	Juice	Aerotech RMS G64-7W	Good Flight
11	Guy DeStefano	Scratch	Juice	Aerotech RMS G64-7W	Good Flight
12	Guy DeStefano	Mountainside Hobbies	V-2	Aerotech G80-4T	Good Flight
13	Roger Dwyer	Estes	Iris	Estes C5-3	Good Flight
14	Roger Dwyer	Mountainside Hobbies	V-2	Aerotech G80-7T	Prang
15	Daniel Feveryear	Launch Pad	ASRAAM	Estes D12-5 (2)	Good Flight
16	Glenn Feveryear	Scratch	Astrobee 1500	Aerotech F25-4W/Apogee B2-0(2)	Good Flight
17	Glenn Feveryear	Scratch	Gnat RG	Apogee 1/4A2-2	Good Flight
18	Glenn Feveryear	Scratch	Grumpy Dog	Estes D12-0/D12-3	Good Flight
19	Adam Gerhart	Estes	Alpha	Estes B6-4	Good Flight
20	Adam Gerhart	Estes	Alpha	Estes B6-6	Good Flight
21	Adam Gerhart	Estes	Alpha	Estes C5-3	Good Flight
22	Adam Gerhart	Estes	Twister	Estes A8-3	Good Flight
23	Adam Gerhart	Estes	Twister	Estes B4-4	Good Flight
24	Glenn Gomba	Quest	Whiplash	Estes B6-4	Good Flight
25	Michael Gomba	Quest	Whiplash	Estes B6-4	Good Flight
26	Michael Gomba	Quest	Whiplash	Estes B6-4	Good Flight
27	Dale Greene	Aerotech	1/2 Arreaux	Aerotech F50-6T	Good Flight
28	Dale Greene	Estes	Magnum	Estes D12-0/C6-5	Good Flight
29	Dale Greene	Scratch	Miss Fire	Estes B6-0 (5)/C6-7	Good Flight
30	Dave Grumbine	Scratch	Rear Facing Astrocam	Estes C6-3	Good Flight
31	Dave Grumbine	Scratch	RF Astrocam/Sigma II	Estes D12-3	Good Flight
32	Dave Grumbine	Scratch	Yellow Crayola	Aerotech RMS F22-5J	Good Flight
33	Mark Kamide	Scratch	MK4 Lander	Aerotech G40-4W	Good Flight
34	Gary Kulp	Estes	Athena	Estes A8-3	Good Flight
35	Gary Kulp	Estes	Fat Boy	Estes C6-3	Good Flight
36	Gary Kulp	Estes	Fat Boy	Estes C6-3	Good Flight
37	Gary Kulp	Estes	Helicopter	Estes C6-3	Roof
38	Gary Kulp	Mountainside Hobbies	V-2	Estes D12-5	Good Flight
39	Gary Kulp	Mountainside Hobbies	V-2	Estes D12-5	Good Flight
40	Craig Myers	Estes	Firebird	Estes B6-4	Good Flight
41	Craig Myers	Estes	Firebird	Estes B6-4	Good Flight
42	Craig Myers	Aerotech	HV Arcac	Aerotech RMS F52-5T	Good Flight
43	Craig Myers	Aerotech	Initiator	Aerotech RMS F22-5J	Good Flight
44	Craig Myers	Aerotech	Initiator	Aerotech RMS F40-7W	Good Flight
45	Craig Myers	Scratch	Matt's Machine	Estes D12-5	Good Flight
46	Craig Myers	Estes	Skywinder	Estes C6-3	Good Flight
47	Dave O'Neal	Estes	Silver Comet	Aerotech RMS E11-3J	Good Flight
48	Melissa O'Neal	Estes	Astrocam	Estes C6-5	Good Flight
49	Shannon O'Neal	Estes	Gemini DC	Estes B6-4	Good Flight
50	Alicia Papincak	Estes	Reliant	Estes 1/2A6-2	Good Flight
51	Alicia Papincak	Estes	Sparrow	Estes 1/2A3-2T	Good Flight
52	Alicia Papincak	Estes	SR-X	Estes C6-3	Good Flight
53	Alicia Papincak	Estes	SR-X	Estes C6-3	Good Flight
54	Alicia Papincak	Estes	SR-X	Estes C6-3	Good Flight
55	Steve Papincak	Estes	Jayhawk	Estes D12-3	Good Flight
56	Steve Papincak	Estes	Sparrow	Estes 1/2A3-2T	Good Flight
57	Brian Royer	Thoy	Hawk	Aerotech RMS G64-4W	Good Flight
58	Brian Royer	AAA Model Aviation	Laser Sonic	Aerotech RMS G64-7W	Good Flight
59	Brian Royer	Estes	Mosquito	Estes A3-4T	Good Flight
60	Brian Royer	Estes	Nice Machine	Estes D12-7	Good Flight
61	Brian Royer	Estes	Silver Comet	Estes D12-5	Good Flight
62	Alan Shepard	Estes	Big Bertha	Estes C6-5	Good Flight
63	Alan Shepard	Estes	Big Bertha	Estes C6-5	Good Flight
64	Alan Shepard	Estes	Big Bertha	Estes C6-5	Good Flight
65	Alan Shepard	Estes	Corkscrew	Estes C6-5	Good Flight
66	Alan Shepard	Estes	Ninja	Estes A10-3T	Good Flight

67	Alan Shepard	Estes	Ninja	Estes A10-3T	Good Flight
68	Alan Shepard	Estes	Quark	Estes A3-4T	Good Flight
69	Alan Shepard	Estes	Quark	Estes A3-4T	Good Flight
70	Alan Shepard	Estes	Yellow Jacket	Estes B6-4	Good Flight
71	Robin Shepard	Estes	Hijax	Estes C6-5	Good Flight
72	Robin Shepard	Estes	Ninja	Estes A10-3T	Good Flight
73	Robin Shepard	Estes	Trans Wing	Estes C6-3	Good Flight
74	Robin Shepard	Estes	Trans Wing	Estes C6-3	Good Flight
75	Frank Sombers	Scratch	SR-71	Estes C6-3 (2)	Good Flight
76	Frank Sombers	Mountainside Hobbies	V-2	Aerotech E30-7T	Good Flight
77	Ben Weaver	Mountainside Hobbies	ADR 4.0	Aerotech RMS G64-4W	Good Flight
78	Ben Weaver	Estes	Big Bertha	Estes C6-5	Good Flight
79	Ben Weaver	Estes	Big Bertha	Estes C6-5	Good Flight
80	Ben Weaver	Estes	Blackbird	Estes C6-5	Good Flight
81	Les Weaver	Mountainside Hobbies	ADR 4.0	Aerotech RMS G64-4W	Good Flight
82	Matt Weaver	Estes	Skywinder	Estes C6-5	Good Flight
83	Matt Weaver	Estes	Skywinder	Estes C6-5	Good Flight
84	Matt Weaver	Estes	Skywinder	Estes C6-5	Good Flight
85	Matt Weaver	Mountainside Hobbies	V-2	Aerotech RMS G64-4W	Good Flight
86	John Yost	Estes	Cato	Estes C6-0	Good Flight
87	Matt Zimmerman	Estes	Astrocam	Estes C6-7	Good Flight
88	Matt Zimmerman	Estes	Astrocam	Estes C6-5	Good Flight
89	Matt Zimmerman	Aerotech	John Deere	Aerotech G40-4W	Good Flight
90	Matt Zimmerman	Scratch	Zarconian Destroyer	Quest A6-4	Good Flight
91	Matt Zimmerman	Scratch	Zarconian Destroyer	Estes C6-5	Good Flight

Launch Statistics - July 13th, 1997

Number of Flyers: 29 Weather: Warm, Breezy

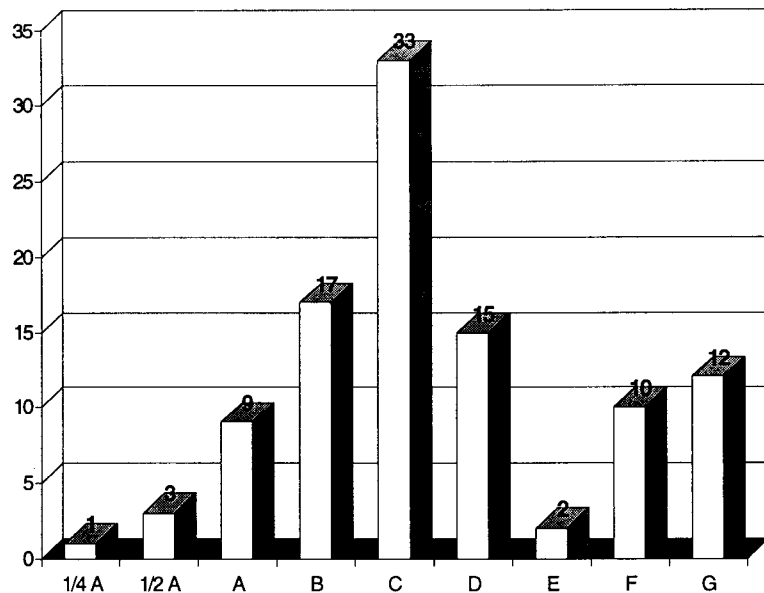
Models Flown:

Estes	33
Scratchbuilt	14
Mountainside Hobbies	9
Aerotech	4
AAA Model Aviation	1
Launch Pad	1
LOC/Precision	1
Quest	1
Thoy	1

Motor Usage:

Estes	73
Aerotech RMS	15
Aerotech	9
Apogee	3
Flight Systems	1
Quest	1

Impulse Distribution:

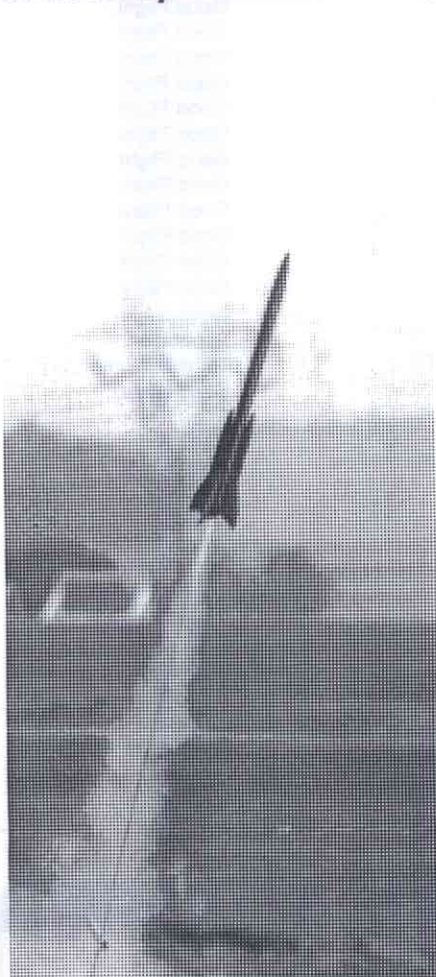


SPAARSPAM 1997

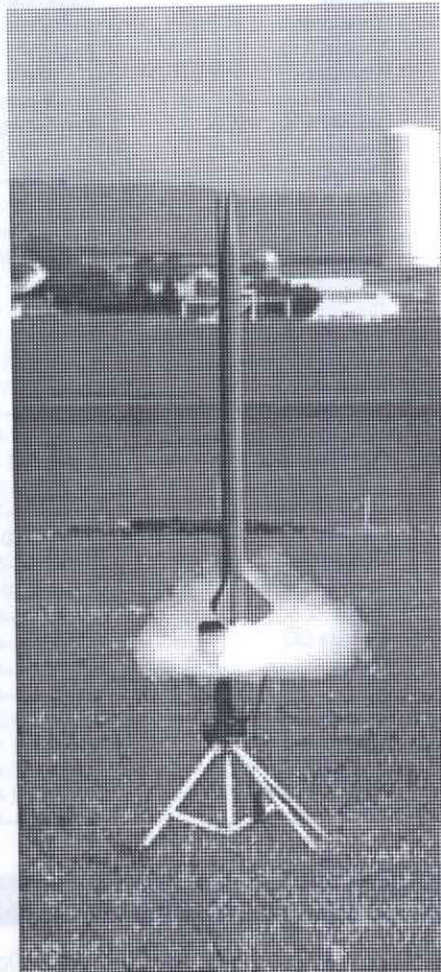
**SPAAR's annual tailgate picnic and launch!
 Sunday, November 2nd from 1PM to 5PM at Cocalico High School**

Be there for rocket launching, food, rocket talk, food, family fun, food, and of course, food! Bring along your own drinks and eating utensils, and something tasty to share with all. And don't forget your rockets and your appetite!

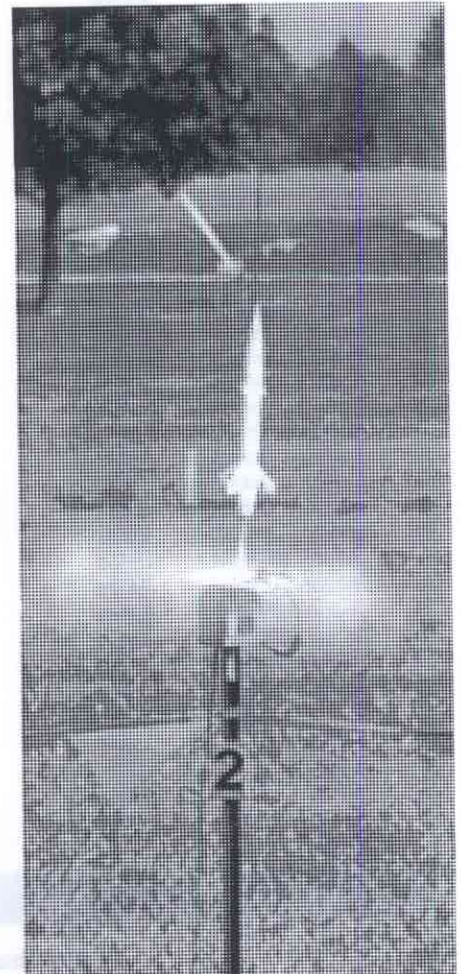
SPAAR Sport Launch August 3rd, 1997 by Randy Brust



Jillane Schlegel's Gemini DC is off on a B4-4. (Hackman)



A 3 D12-3 cluster ignites in a Thoy Snipe by LeRoy Bonawitz. (Brust)



Jeffery Aughey's Estes Bullpup 12D is off on an A8-3. (Brust)

Flight Log 8-3

#	Flyer	Manufacturer	Model	Motors	Result
1	Jeffery Aughey	Estes	A.R.V. Condor	Estes B6-4	Good Flight
2	Jeffery Aughey	Estes	Bullpup 12D	Estes A8-3	Good Flight
3	Jeffery Aughey	Club Kit	Egg Lifter	Estes B6-4	Good Flight
4	Jeffery Aughey	Estes	Strike Fighter	Estes C6-5	Good Flight
5	Karla Balogh	Estes	Turbo Copter	Estes A8-3	Good Flight
6	Laurel Balogh	Estes	Manta	Estes A8-3	Good Flight
7	Laurel Balogh	Estes	Patriot	Estes B6-4	Good Flight
8	LeRoy Bonawitz	Thoy	Snipe	Estes D12-3 (3)	Good Flight
9	Randy Brust	Estes	Fat Boy	Aerotech RMS D15-4T	Good Flight
10	Glenn Feveryear	Scratch	B Streamer Duration	Estes B6-4	Good Flight
11	Glenn Feveryear	Scratch	C Streamer	Apogee C4-7	Good Flight
12	Adam Gerhart	Estes	Alpha	Estes B6-6	Good Flight
13	Adam Gerhart	Estes	Alpha	Estes C5-3	Good Flight
14	Adam Gerhart	Estes	Alpha	Estes B4-4	Good Flight
15	Adam Gerhart	Estes	Alpha	Estes B6-6	Good Flight
16	David Grumbine	Scratch	Maxi Gyroc	Estes D12-3	Good Flight
17	David Grumbine	Scratch	Rear Facing Astrocam	Estes C6-3	Good Flight
18	David Grumbine	Scratch	Rear Facing Astrocam	Estes C6-3	Good Flight
19	David Grumbine	Scratch	RF Astrocam/Sigma II	Estes D12-3	Good Flight
20	Rick Hackman	Scratch	Corporal	Estes B4-4	Good Flight
21	Rick Hackman	Scratch	XR-49	Estes C6-5	Good Flight
22	Peter Kazlouski	Estes	Alpha	Estes B6-4	Separation

23	Peter Kazlouski	Estes	Alpha	Estes A8-3	Good Flight
24	Corey Kline	Estes	Bailout	Estes B4-4	Good Flight
25	Corey Kline	Estes	Bailout	Estes C6-5	Good Flight
26	Corey Kline	Estes	Unknown	Estes B4-4	Good Flight
27	Corey Kline	Estes	Unknown	Estes A8-3	Good Flight
28	Corey Kline	Estes	Unknown	Estes B4-4	Good Flight
29	Stephen Knight	Scratch	LRD-D-1	Estes A10-3T	Good Flight
30	Stephen Knight	Scratch	Rainbow	Estes D12-3	Good Flight
31	Stephen Knight	Scratch	Rainbow	Estes D12-3	Good Flight
32	Stephen Knight	QCR	Rotaroc	Estes B4-4	Good Flight
33	Stephen Knight	Estes	SR-71	Estes C6-3	Good Flight
34	Stephen Knight	Estes	Wizard	Estes B6-4	Good Flight
35	Dave O'Neal	Estes	Silver Comet	Estes D12-5	Good Flight
36	Chris Rhymer	Estes	Athena	Estes A8-3	Good Flight
37	Tom Rhymer Jr.	Estes	Big Bertha	Estes B6-4	Good Flight
38	Tom Rhymer Jr.	Estes	Corkscrew	Estes B6-4	Separation
39	Tom Rhymer Jr.	Estes	Shadow	Estes D12-3	Tangled Chute
40	Tom Rhymer Sr.	Estes	Phoenix	Estes D12-3	Good Flight
41	Tom Rhymer Sr.	Estes	Sidewinder	Estes B6-4	Good Flight
42	Samatha Schildt	Estes	Bailout	Estes C6-5	Good Flight
43	Samatha Schildt	Estes	Nike Arrow	Estes 1/2 A3-2T	Good Flight
44	Samatha Schildt	Estes	Sidewinder	Estes C6-5	Misfire
45	Samatha Schildt	Estes	Venus Probe	Estes C6-7	Prang
46	Brinton Schlegel	Estes	Cobra	Estes A10-3T	Good Flight
47	Brinton Schlegel	Estes	Helicat	Estes C6-5	Good Flight
48	Brinton Schlegel	Estes	Mean Machine	Estes D12-5	Good Flight
49	Jillane Schlegel	Estes	Flash	Estes C6-5	Good Flight
50	Jillane Schlegel	Estes	Gemini DC	Estes B4-4	Good Flight
51	Robin Schlegel	Estes	Alpha	Estes B4-4	Good Flight
52	Robin Schlegel	Estes	Flash	Estes B4-4	Good Flight
53	Robin Schlegel	Estes	Sizzler	Estes C6-3	Good Flight
54	Brett Shope	Estes	Gnome	Estes 1/2 A3-2T	Good Flight
55	Brett Shope	Estes	Mosquito	Estes 1/2 A3-2T	Good Flight
56	Brett Shope	Estes	Patriot Missle	Estes 1/2 A3-2T	Good Flight
57	John Yost	Estes	Neon	Estes B4-4	Good Flight

Launch Statistics - August 3rd, 1997

Number of Flyers: 22 Weather: Mid-80s, Nice, Breezy

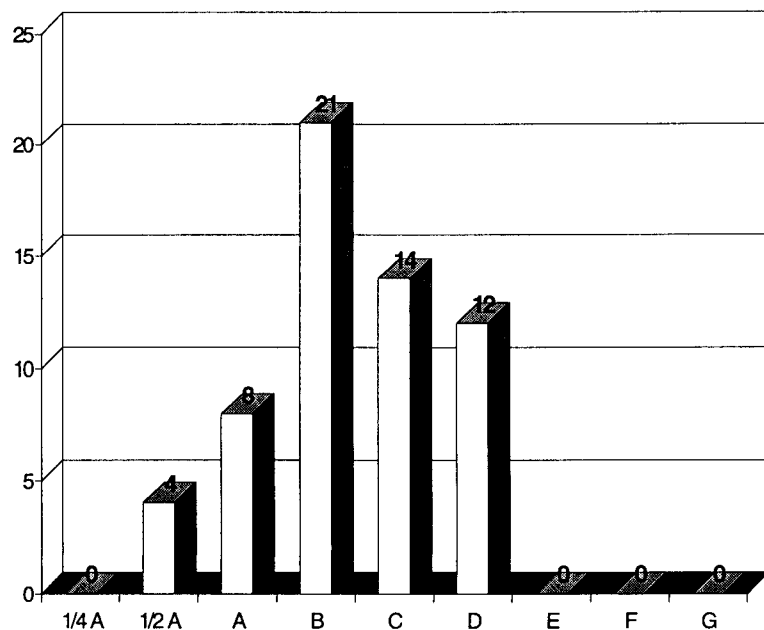
Models Flown:

Estes	35
Scratchbuilt	9
Club Kit	1
QCR	1
Thoy	1

Motor Usage:

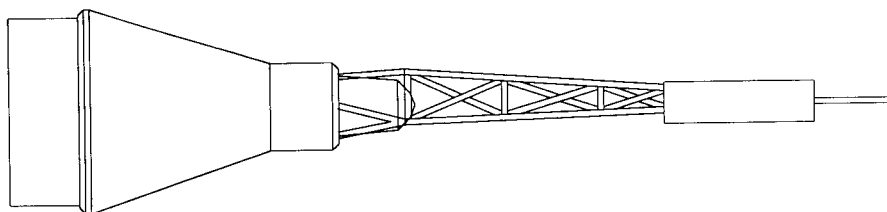
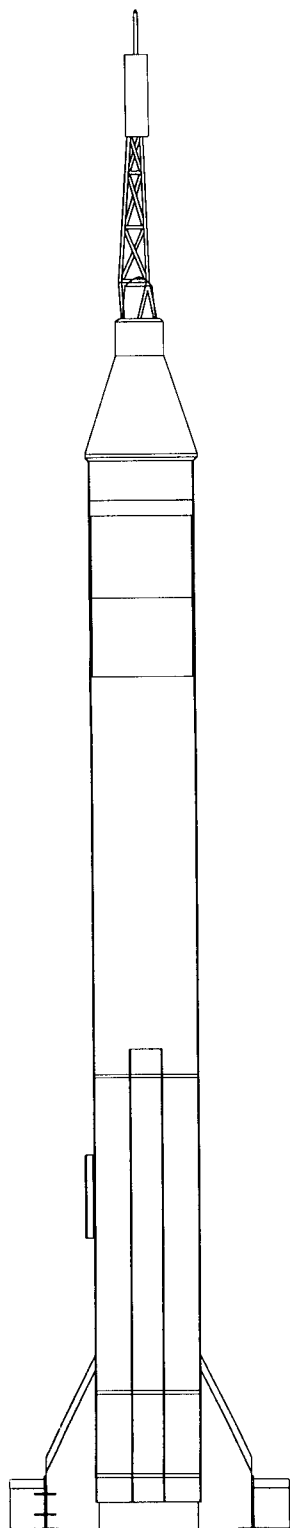
Estes	57
Aerotech RMS	1
Apogee	1

Impulse Distribution:



SPAAR Winter Workshop Program

4" Mercury-Redstone



Parts List

Description	Qty.	Size	Cost/Each	Total
Body Tube	2	4.00 Dia. x 34" Long	4.00	8.00
Capsule	1	4.00 Dia.	14.25	14.25
Barrel	1	7/8 Dia. x 36	0.20	0.20
Barrel Support Rods	1	1/8 Dia. x 36	0.20	0.20
Centering Rings	3	1/8 Thk. x 3.90 Dia.	1.50	4.50
Launch Lug	1	1/4 Dia. x 6.00 Long	0.30	0.30
Fins	4	3/16 x 6.00 x 12.00	2.20	4.40
Fins	1	1/8 x 6.00 x 12.00	2.80	2.80
Fins	1	1/16 x 6.00 x 12.00	2.04	2.04
Fin Dowel	1	1/16 Dia. x 34 Long	0.10	0.10
Steel Shock Chord	1	1/8 Dia. x 36 Long	1.00	1.00
Elastic Shock Chord	4	3/4 Wd. x 36 Long	0.50	2.00
Eye Bolt	1	3/16 Thd. x 1 Long	0.50	0.50
Screw Eye	1	1/4 Thd. x 2 Long	0.90	0.90
Tower Cross Brace	1	1/8 Square x 36 Long	0.15	0.15
Parachute	1	36" Dia.	11.99	11.99
Tube Coupler	1	4.00 Dia. x 6 Long	2.25	2.25
Steel Shock Crimp	2	1/16 Dia. Steel Crimp	0.25	0.50
29mm Motor Tube	1	1.14 Dia. x 34 Long	2.50	2.50
Decal	2	"United States"	1.50	3.00
			Total	61.58

Directions:

Circle the items you DO NOT need and subtract the cost from the Total Cost

Name:

Address:

Phone Number:

Return As Soon As Possible, So Kits May Be Started

Send To:

Mark Kamide
 Mountainside Hobbies, Inc.
 P.O. Box 343
 Ephrata Pa 17522

COUNTDOWN

is the Official Newsletter of SPAAR
THE SOUTHERN PENNSYLVANIA AREA ASSOCIATION OF ROCKETRY

Please make sure your membership is up to date!

George Beaver
231 Weidmansville Road
Ephrata, PA 17522
Membership Expires: 12/31/97

SPAAR
PO Box 127
Reamstown, PA. 17567



COUNTDOWN