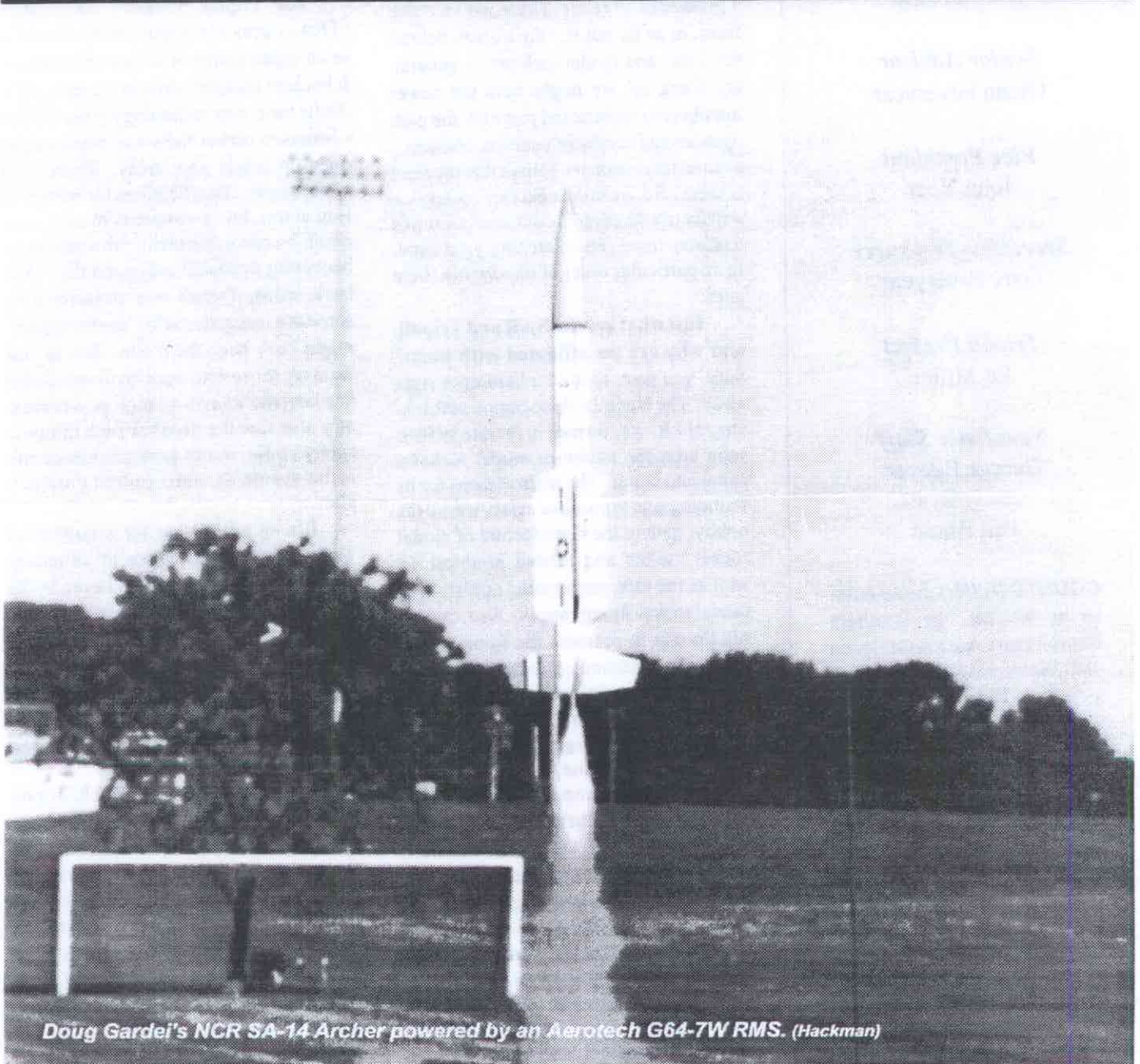


COUNTDOWN

Official Newsletter of SPAAR

THE SOUTHERN PENNSYLVANIA AREA ASSOCIATION OF ROCKETRY



Doug Gardei's NCR SA-14 Archer powered by an Aerotech G64-7W RMS. (Hackman)

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COUNTDOWN

Volume 9, Issue 6
November/December 1996

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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:

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The Editors' Corner

A member recently approached me with what I believe is a good suggestion. He said that many of the people who have recently joined SPAAR are not familiar with the reasons "why we do the things we do". He added that he thought it might be a good idea to relate where we've come from, or as he put it, "the history behind the club" and model rocketry in general. By doing so, we might help the newer members to understand just how the club operates and conducts launches. Hmm... a rather large task, but I agree that the need is there. So, over the next few issues, we will try to address some of those questions that may have you scratching your head. In no particular order of importance, here goes:

Just what are the NAR and Tripoli, and why are we affiliated with them?

Sure, you want to do the hard ones right away. The National Association of Rocketry (NAR) was formed in the late 1950's, soon after the hobby of model rocketry came into being. The main reasons for its founding was to promote safety within the hobby, both in the manufacture of model rocket motors and related products, as well as the safe, responsible operation of model rocket flying ranges. A secondary reason was to promote the formation of clubs, called sections, around the country. It's sort of a natural thing. It's been said that whenever two rocket flyers get together, the first thing they do is form a club. Also at that time, the NAR began to formulate rules for model rocket contests. It's also said that after our two rocket flyers form a club, they hold a contest. "Mine went higher than yours" kind of thing. Kind of a natural progression, so to speak. Contests were also a way of getting people to use their brains a little bit, so that rockets did just a little more than go up and come down. While that in itself can be a very satisfying state of affairs, contests provide a challenge. This is not to say, in any way, that designing, constructing, and successfully flying a high-power rocket (H or above) is not a challenge or the use of one's brains. To the contrary. But remember, we're talking early 60's here. At that time, a B motor was the last word in power! It might be hard to believe now,

but C motors didn't make their appearance until around 1961 or 1962.

Up until the last six years or so, the NAR concerned itself primarily with "model" rocketry (up to G motors), with an emphasis on competition. This is a general statement, of course, but for our purposes here an accurate one.

The Tripoli Rocketry Association (TRA) traces its origins to the late 60's, as an organization of science enthusiasts. It became rocketry-only in the early 80's. At the time, new technology in the form of composite rocket fuels was beginning to open up whole new areas. There have always been classifications for motors of H or above, but it was pretty much a mute point; no one made them. Now they were becoming available commercially. Way back when, Tripoli was considered by some as a renegade outfit, "anything goes" might have been the motto. But as time went on, those who were involved in what has become known as high power rocketry also saw the need for such things as safety codes, motor performance certification standards, and organization in general.

It's no secret that for a number of years there was a degree of animosity between the two groups. However, by the late 80's, with things like increased governmental regulation looming as a possibility, the two groups decided to act like adults and "make nice". We hobbyists knew all along that the two groups had much in common, and the powers that be listened for a change.

Why is our club, SPAAR/Tripoli Susquehanna affiliated with our two parent national organizations? The reasons are numerous and varied. Start with the inescapable fact that affiliation with an established, recognized body, by a smaller group, legitimizes both. This comes into play when securing flying sites, for instance. Along with this comes the availability of liability insurance. In this sue happy age, any group, officially organized or not, who flies on property that does not belong to them without some sort of liability protection is foolish, to say the least. Because SPAAR is an NAR Section, we are eligible for \$1,000,000 in liability protection for SPAAR sponsored launches. Five adult members must carry

the individual insurance made available through the NAR for us to be eligible. Tripoli makes flying site insurance available, which we will have for the high power launches we're planning for 1997.

This also explains why our bylaws require certain club officials to be NAR or Tripoli members. The Section Advisor, President, Vice-President, Secretary/Treasurer, and Prefect must be members of the parent organizations to maintain affilia-

tion with the NAR and TRA. In short, it's their rule, not necessarily ours, but a good one, none the less. Membership in either the NAR or Tripoli has never been a requirement to be a member of SPAAR. That decision has always been left up to the individual member, and the addresses of both are made available here in the Countdown. However, keep in mind that in order to purchase high power rocket motors, membership in one or the other is

needed.

Obviously, this has been a "cheap-and-dirty" thumbnail sketch. I hope some of the questions regarding why SPAAR is "NAR Section #503/Tripoli #71" have been answered. In the next issue, we'll look further at "why we do the things we do."

George

Section News Notes

by George Beever

Upcoming Events:

Sunday, January 5, 1997 - SPAAR Sport Launch, Cocalico High School, 1PM to 5PM. Bring your hand and bun warmers.

Saturday, January 11, 1997 - The SPAAR Family Dinner will be held at the Sunset Diner on Rothsville Rd., Ephrata, at 6PM. This enjoyable annual event allows us to do what we do best besides fly rockets - eat. Seating is limited, so call Bill Rhoat at 733-6915 ASAP.

Saturday, January 25, 1997 - SPAAR Monthly Meeting and Winter Workshop,

APRIA Community Room, 240 Harrisburg Ave., Lancaster., 9AM to 1PM. Located between Lombardo's Restaurant and Domino's Pizza. Bring whatever you want to work on after the business meeting. A good time to work on your models for the SPAARTREK program, too.

Sunday, February 2, 1997 - Annual "Ground Hog Day" Sport Launch, 1PM to 5PM at Cocalico High School. Come on out and use 'ol Punxsutawney Phil as the target for a Spot Landing Contest!

Reminder:

Please keep in mind that we are always in need of members to serve as Launch Control Officers, Range Safety

Officers, and Range Spotters. The LCO and RSO work together to run the check-in line, accept flight cards, make sure the range is clear, and "press the button". LCO's and RSO's should be 18 years of age. The Range Spotter is best described as another set of eyes and ears, and can assist some of our younger members with getting their models on the pads. Shifts are generally for a half hour. If you've never done any of these duties before, no problem. We'll show you how, it's not hard (insert your favorite "rocket scientist" joke here). Remember, by pitching in and doing your share, we all get to fly. Thanks. **CD**

Section Meeting Minutes

by George Beever

October 18, 1996

Present: D. Weinhold, D. Greene, B. Rhoat, R. Dwyer, E. Miller, J. Yost, R. Hackman, G. Feveryear, R. Feveryear, G. Beever.

Committee Reports:

HPR: Ed Miller advised that RATS IV will be held Oct. 26/27 in Cedarville, NJ. The November Culpeper launch is in doubt due to hunting on the land to be used. Roger Dwyer offered to check on some land in Chester Co. that might be used for HPR launches.

Competition: Glenn Feveryear advised that the contest sanction for RAMTEC-5 has been applied for. It will be held at Allentown College over the weekend of June 14/15, 1997. The events will be: 1/2A SD, A SRD, A RG, D HD, A PAI.

Also, NARHAMS will host ECRM-24 April 12/13 in Middletown, MD. The events: 1/4A RG, 1/2A SD, A SRA, Sp Sc, 5 B CI Alt. President Greene stated that since NARHAMS is one of the clubs that have always attended and supported RAMTEC, we should return the favor.

Senior Advisor: No Report.

Newsletter: George Beever requested help with the newsletter production, or a new editor would have to be found by next year.

Old Business: In regards to the

SPAARTREK Program that was proposed by Bill Rhoat at the September meeting, George Beever made a motion, seconded by Rita Feveryear, that the program should be adopted by the club. Motion passed. Bill Rhoat was asked to run the program.

New Business: The possible purchase of a launch system to handle high power rockets was again discussed. It was decided to purchase a commercially built system, as opposed to one being built by a member. Discussion: if the system is faulty or needs repair, the manufacturer would be responsible; a commercially available system would already be engineered; who has the time to build one, despite the best intentions; the general fund, with about \$700, can afford it. The rationale for having a club owned HPR launch system was discussed at previous meetings. As this is

another direction that the club appears to be heading in, so we need the equipment. The specs for a system were decided, and George Beever volunteered to contact Vaughn Brothers for a price quote.

General discussion followed, and the meeting adjourned at 9PM.

November 15, 1996

Present: Glenn, Rene, & Daniel Feveryear, D. Greene, Gary Feveryear, B. Rhoat, R. Dwyer, D. Weinhold, R. Brust, G. Beever.

Committee Reports:

HPR: Ed Miller, not present. However, Roger has spoken with him and plans were made for Ed, as the Tripoli Prefect, to meet with Roger at the proposed Chester County site to determine if it is suitable.

Competition: Glenn Feveryear represented SPAAR at the GSSS (NJ) Local Meet October 26/27. GSSS will host an Open

Meet March 22/23. Events: 1/2A HD(M), OSL, Sp Sc, A SRD.

Senior Advisor: No report.

Newsletter: George Beever advised that a newsletter staff has been formed by Randy Brust, Bill Rhoat, and himself. An edition should be out soon.

Treasurer: Previous balance: \$764.34. Expenditures: \$62 for copy costs & postage. Income: \$45 in dues. Current balance, \$747.38, with 74 members.

Old Business: George Beever advised that a reply was received from Vaughn Brothers on the HPR launch system. A system to meet our requirements will cost \$384.90. Discussion: the QUADCON controller proposed by VBR requires an external 12-volt DC power source. Given that we will need to purchase a second 12-volt battery for the relay, does this mean we have to purchase a third one for the controller? Or, can it be powered by the battery that

we use to power the model rocket launch system and PA? Also, the illustration appears to indicate that the QUADCON can be powered externally or internally. Which is required? Also, the quote mentions nothing about leads to the four pads specified. Are they included in the package? Glenn Feveryear volunteered to contact VBR to obtain answers. George Beever made a motion, seconded by Dale Greene, to authorize Glenn to place the order with VBR for the system, provided that the answers from VBR are satisfactory. Motion passed.

New Business: Bill Rhoat advised that he had contacted the Sunset Diner in Ephrata regarding the Family Dinner, January 11. They need a head count 30 days in advance. Contact Bill at 733-6915.

Nominations were then accepted for club offices for 1997.

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

SPAAR Sport Launch

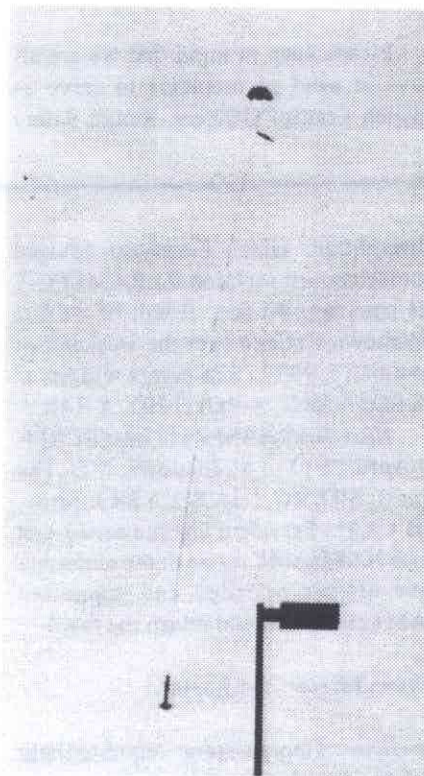
September 1, 1996

by George Beever

SPAAR's Labor Day Weekend Sport Launch always attracts a lot of flyers, and this year was no exception. During the course of the eight hour event, a total of 29 flyers made 156 flights. To top it all off, you could not have asked for nicer rocket flying weather.

An added attraction was the availability of the club's altitude tracking equipment. In all, about 17 flights were tracked, with some interesting results. Robin Shepard had a LOC Aura, powered by an Aerotech E11 reload tracked to 188.7 meters. Ted Jones flew his Aura with an E16 to an altitude of 215 meters. Nate Minnich clustered three Estes D12's in his Maxi-Force for a 210 meter flight.

The two most impressive flights, as far as altitude was concerned, were turned in by George Fetter and Brian Roger. George loaded his scratch built model, the "X-99" with an Aerotech G40-10 White Lightning. It was tracked to 1,076.8



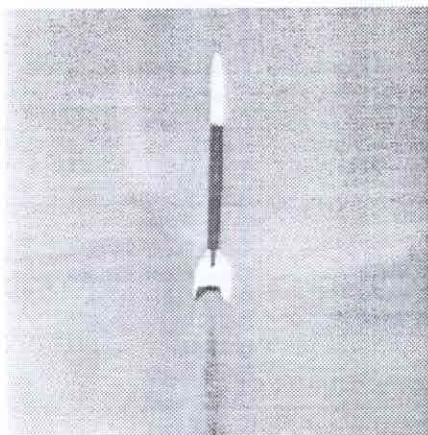
The booster of Ed Miller's rocket touched down 1 minute 37 seconds before the nose! (Hackman)

meters. Not to be outdone, Brian countered with his "Scorcher", comparable to the "X-99" as both looked like minimum diameter designs. Brian also used the G40-10WL, but his model was tracked to 1,090.7 meters.

Alan Shepard had his Estes Space Racer tracked to 106 meters, very nice considering the power was an A8-3. Ted Jones had a little problem with his AAA Lasersonic 1.6. It went unstable shortly after launch. However, it was tracked to, believe it or not, 3.4 meters. A record of sorts, I guess. Ed Miller may have attained a club record for the lowest altitude achieved with a G powered rocket: his UFO 29 was tracked to 87.6 meters.

Ed also flew a two-stage, FSI powered model he calls "Shock Wave". This model is powered by an F100-0 in the booster and an F100-6 in the upper stage. A really neat flight. George Fetter flew a scratch built Black Brant IIB, which looked like it was built around 3" diameter tubing. It flew very well on an Aerotech F25-4 White Lightning.

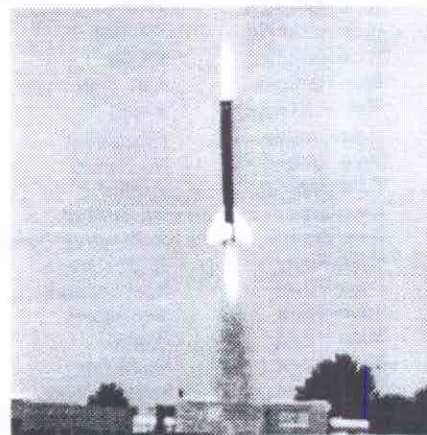
There were also a number of flights made in SPAAR's summer-long fun con-



Bill Rhoat's Mountainside Sandhawk on an Aerotech G75-6J RMS. (Hackman)

test. Dale Greene used one of the new Apogee D3 composite motors to attain an altitude of 771.7 meters in D Altitude. Glenn Feveryear used the same motor to fly to 820 meters. Glenn also used one of the new Apogee black powder A3 motors in a rocket glider for a 142 second duration flight. Roger Dwyer used a stock QCR "Easy-Slider" rocket glider, with an Estes B6-2 for an incredible 90+ second flight that thermalled away. Great flight, Roger!

CD



George Fetter's Mountainside Sandhawk on an Aerotech G64-4W RMS. (Hackman)

Flight Log

#	Flyer	Model	Manufacturer	Motors	Result
1	Nate Minnich	Maxi-Force	Estes	Estes D12-5(3)	Good Flight 210m
2	Alan Shepard	Zinger	Estes	Estes A8-3	Seperation
3	Alan Shepard	Space Racer	Estes	Estes A8-3	Good Flight 106m
4	Alan Shepard	Space Racer	Estes	Estes A8-3	Good Flight
5	Alan Shepard	T/W Glider	Estes	Estes C6-3	Good Flight
6	Alan Shepard	Corkscrew	Estes	Estes C6-5	Good Flight
7	Alan Shepard	Corkscrew	Estes	Estes B4-2	Good Flight
8	Alan Shepard	Corkscrew	Estes	Estes B4-2	Good Flight
9	Alan Shepard	Corkscrew	Estes	Estes C6-5	Good Flight
10	Alan Shepard	Corkscrew	Estes	Estes C6-5	Good Flight
11	Bill Rhoat	Sandhawk	Mountainside Hobbies	Aerotech G80-4T	Good Flight
12	Bill Rhoat	Sandhawk	Mountainside Hobbies	Aerotech G75-6J RMS	Good Flight
13	Bill Rhoat	lo	Public Missles	Aerotech G54-6W RMS	Good Flight
14	Bill Rhoat	Firestreak	Estes	Estes A8-3	Good Flight
15	Bill Rhoat	Wasp	Thoy	Aerotech F37-6W RMS	Good Flight
16	Bill Jordan	Mosquito 5X	Scratch	Aerotech F14-4J	Good Flight
17	Bill Jordan	Lil' Nuke	LOC/Precision	Aerotech F50-9T	Good Flight
18	Bill Jordan	Broadsword	Estes	Estes D12-5	Good Flight
19	Bill Jordan	Jayhawk	Estes	Estes D12-5	Good Flight
20	Ted Jones	Aura	LOC/Precision	Aerotech E16-7W RMS	Good Flight 215m
21	Ted Jones	No Name	Scratch	Estes C6-5	Good Flight
22	Ted Jones	Aura	LOC/Precision	Estes D12-5	Good Flight
23	Ted Jones	Aura	LOC/Precision	Estes D12-5	Good Flight
24	Ted Jones	No Name	Scratch	Estes B6-4	Good Flight
25	Ted Jones	No Name	Scratch	Estes B6-4	Good Flight
26	Ted Jones	No Name	Scratch	Estes D12-5	Good Flight
27	Ted Jones	No Name	Scratch	Estes C6-5	Good Flight
28	Ted Jones	No Name	Scratch	Estes C6-3	Good Flight
29	Ted Jones	Lasersonic 1.6	AAA Model Aviation	Aerotech E23-8T RMS	UNS 3.4m
30	Robin Shepard	lo	Public Missles	Aerotech G33-5J RMS	Good Flight
31	Robin Shepard	Sandhawk	Mountainside Hobbies	Aerotech G64-4W RMS	Good Flight
32	Robin Shepard	lo	Public Missles	Aerotech G33-7J RMS	Good Flight
33	Robin Shepard	V-2	Mountainside Hobbies	Aerotech E11-3J RMS	Good Flight
34	Robin Shepard	Aura	LOC/Precision	Aerotech E11-3J RMS	Good Flight 188.7m
35	Robin Shepard	V-2	Mountainside Hobbies	Aerotech E18-7W RMS	Good Flight
36	Robin Shepard	Sandhawk	Mountainside Hobbies	Aerotech G64-4W RMS	Good Flight
37	Matt Zimmerman	PA Crude	AAA Model Aviation	Aerotech G40-10W	Good Flight
38	Matt Zimmerman	PA Crude	AAA Model Aviation	Aerotech F14-6J	Good Flight
39	Matt Zimmerman	Laser	Estes	Estes C6-3	Good Flight
40	John Balmer	Astrocam	Estes	Estes C6-7	Good Flight
41	John Balmer	Astrocam	Estes	Estes C6-7	Good Flight
42	John Balmer	Astrocam	Estes	Estes C6-7	Good Flight
43	John Balmer	Astrocam Carrier	Scratch	Estes C6-7	Good Flight

44	Rick Hackman	XR-61	Scratch	Estes D12-5	Good Flight
45	Rick Hackman	XR-77B	Scratch	Estes D12-5	Good Flight
46	Rick Hackman	XR-54	Scratch	Estes D12-7	Weird Flight
47	Rick Hackman	F3A Tiger	Scratch	Estes D12-5	Good Flight
48	Rick Hackman	XR-82	Scratch	Estes D12-5	Good Flight
49	Dale Greene	F Egglofter	Scratch	Aerotech F25-9W	CATO
50	Dale Greene	No Name	Scratch	Estes D12-5	Separation
51	Dale Greene	Canard	Edmunds	Estes C6-3	Good Flight
52	Dale Greene	Big Bertha	Estes	Estes C6-5	Good Flight
53	Dale Greene	D Streamer Duration	Scratch	Estes D12-5	Good Flight 45.5s
54	Brian Royer	Sparrowhawk	Thoy	Aerotech G64-4W RMS	Good Flight 366.8m
55	Brian Royer	Sparrowhawk	Thoy	Aerotech G64-7W RMS	Good Flight 560m
56	Brian Royer	Sky Ripper	Scratch	Aerotech G64-10W RMS	Good Flight 469m
57	Brian Royer	Poppy	Scratch	Estes B6-4(3)	Unknown
58	Brian Royer	Mosquito	Estes	Estes A10-3	Good Flight
59	Brian Royer	Nice Machine	Estes	Estes D12-7	Good Flight
60	Brian Royer	Nice Machine	Estes	Aerotech E15-7W	Good Flight
61	Brian Royer	BAR-I	Scratch	Aerotech G64-4W RMS	Good Flight
62	Brian Royer	Alpha	Estes	Estes C6-5	Good Flight
63	Brian Royer	Star Shot	Scratch	Estes B6-0/C6-5	Hmmm...
64	Brian Royer	Alpha	Estes	Estes C6-5	Good Flight
65	Brian Royer	Scorcher	Scratch	Aerotech G40-10W	Good Flight 1090.7m
66	Doug Gardei	Bullpup 12D	Estes	Estes A8-3	Good Flight
67	Doug Gardei	Corkscrew	Estes	Estes B6-4	Separation
68	Doug Gardei	Patriot	Estes	Estes B6-4	Good Flight 64m
69	Doug Gardei	Phantom 4000	North Coast Rocketry	Aerotech F40-4W RMS	Good Flight
70	Doug Gardei	X-Wing Fighter	Estes	Estes C6-5	Good Flight
71	Doug Gardei	Big Bertha	Estes	Estes C6-5	Unknown
72	Doug Gardei	Helicopter	Estes	Estes Unknown	Unknown
73	Doug Gardei	Strong ARM	Aerotech	Aerotech G33-7J RMS	Good Flight
74	Doug Gardei	Initiator	Aerotech	Aerotech F52-8T RMS	Separation
75	Doug Gardei	Arreaux	Aerotech	Aerotech F22-7J RMS	Good Flight
76	Doug Gardei	Honest John	Estes	Estes D12-3	Good Flight
77	Doug Gardei	Mustang	Aerotech	Estes D12-3	Good Flight
78	Doug Gardei	Broadsword	Estes	Aerotech E11-3J RMS	Good Flight
79	Doug Gardei	SA-14 Archer	North Coast Rocketry	Aerotech G64-7W RMS	Good Flight
80	Roger Dwyer	Wren	Thoy	Aerotech E30-7T	Good Flight
81	Roger Dwyer	Wren	Thoy	Aerotech G80-10T	Good Flight
82	Roger Dwyer	Easy-Slider	QCR	Estes B6-2	Good Flight 90+s
83	Glenn Feveryear	A Streamer Duration	Scratch	Apogee A2-5	Separation
84	Jesse Stauffer	Sandhawk	Scratch	Aerotech E30-7T	Good Flight
85	Jesse Stauffer	Tomcat	Estes	Estes C6-3	Good Flight
86	Jesse Stauffer	Cheetah	Aerotech	Aerotech E30-7T	Good Flight
87	Mark Kamide	Maniac	Estes	Estes D12-7	Good Flight 245m
88	Mark Kamide	Mongoose	Estes	Estes B6-0/C6-7	Good Flight
89	Mark Kamide	Black Brant II	Estes	Estes D12-7	Cornfield!
90	John Yost	Onyx	LOC/Precision	Aerotech G40-10W	Good Flight
91	Ed Miller	Warp Drive 29	Scratch	Aerotech G25-15	Good Flight 1,527.7m
92	Ed Miller	Mini Katana	North Coast Rocketry	Aerotech F55-12, Estes C6-7(6)	Good Flight
93	Ed Miller	UFO 29-10	Scratch	Aerotech G64-4W RMS	Good Flight 87.6m
94	Ed Miller	Tekyon	Scratch	Vulcan G200-5	Good Flight
95	Ed Miller	Shock Wave	Scratch	Flight Systems F100-0/F100-6	Good Flight
96	Ed Miller	Eliminator	North Coast Rocketry	Aerotech F50-4T	Good Flight
97	George Fetter	Sandhawk	Mountainside Hobbies	Aerotech G64-4W RMS	Good Flight
98	George Fetter	Extreme 38	Vaughn Brothers	Aerotech F50-9T	Good Flight
99	George Fetter	Sidewinder	Estes	Estes B6-2	Good Flight
100	George Fetter	Sidewinder	Estes	Estes B6-2	Good Flight
101	George Fetter	Sidewinder	Estes	Estes C6-3	Good Flight 70.97m
102	George Fetter	Sidewinder	Estes	Aerotech D21-7T	Good Flight
103	George Fetter	HL-20	Quest	Estes C6-3	Good Flight
104	George Fetter	HL-20	Quest	Estes B6-2	Good Flight
105	George Fetter	HL-20	Quest	Estes C6-3	Good Flight
106	George Fetter	HL-20	Quest	Estes C6-3	Loop
107	George Fetter	HL-20	Quest	Estes C6-3	Good Flight
108	George Fetter	Sandhawk	Mountainside Hobbies	Aerotech G64-4W RMS	Good Flight
109	George Fetter	Sandhawk	Mountainside Hobbies	Aerotech G80-4T	Good Flight
110	George Fetter	X-99	Scratch	Aerotech G40-10W	Good Flight 1076.8m
111	George Fetter	Astrobee-C	Aerotech	Aerotech F25-4W	Good Flight
112	George Fetter	V-2	Mountainside Hobbies	Aerotech G64-4W RMS	Good Flight
113	George Fetter	Black Brant IIB	Scratch	Aerotech F25-4W	Good Flight

114	George Beever	Wren	Thoy	Aerotech E11-3J RMS	Good Flight
115	George Beever	Outlaw	Scratch	Aerotech G64-4W RMS	Good Flight
116	George Beever	Patriot	Estes	Estes D12-7(4)	Good Flight
117	George Beever	Impulse	Estes	Estes D12-7(2)	Good Flight
118	George Beever	Maxi-Force	Estes	Estes D12-7(3)	Good Flight
119	George Beever	EOS	Flight Systems	Estes D12-5	Good Flight
120	George Beever	1/4A RG	Scratch	Apogee 1/4A3-2	Good Flight 17s
121	Don Ewing	Wren	Thoy	Aerotech F24-7W RMS	Good Flight
122	Don Ewing	Wren	Thoy	Aerotech E18-7W RMS	Good Flight
123	Don Ewing	Ninja	Estes	Estes A3-4	Good Flight
124	Don Ewing	Ninja	Estes	Estes A3-4	Good Flight
125	Don Ewing	IRIS	Mountainside Hobbies	Aerotech E11-3J RMS	Good Flight
126	Don Ewing	IRIS	Mountainside Hobbies	Aerotech F24-7W RMS	Good Flight
127	Matt Regatano	Bailout	Estes	Estes C6-7	Good Flight
128	Matt Regatano	Maniac	Estes	Aerotech E15-7W	Good Flight
129	Matt Regatano	Graduator	LOC/Precision	Aerotech G40-7W	Good Flight
130	Matt Regatano	Bandit	Estes	Estes C6-7	Good Flight
131	Joe Regatano	Initiator	Aerotech	Aerotech G40-7W	Good Flight
132	Joe Regatano	Maniac	Estes	Estes D12-5	Good Flight
133	Adam Ortiz	Maniac	Estes	Estes C6-5	Good Flight
134	Adam Ortiz	Unknown	Estes	Estes C6-7	Good Flight
135	Adam Ortiz	Bandit	Estes	Estes C6-7	Good Flight
136	Adam Ortiz	Maniac	Estes	Estes D12-5	Good Flight
137	Adam Ortiz	Maniac	Estes	Estes C6-7	Good Flight
138	David Benedick	Big Bertha	Estes	Estes C6-7	Good Flight
139	David Benedick	Blue	Unknown	Estes C6-5	Good Flight
140	David Benedick	Big Bertha	Estes	Estes C6-5	Good Flight
141	David Benedick	Thunderhawk	Estes	Estes C6-5	Good Flight
142	David Benedick	Blue	Unknown	Estes C6-5	Good Flight
143	John Minnich	Unknown	Aerotech	Aerotech Unknown	Unknown
144	John Minnich	Maxi-Force	Estes	Estes D12-5(3)	2/3 Good Flight
145	John Minnich	Unknown	Aerotech	Aerotech Unknown	Good Flight
146	Sean Foust	Hawkeye	Estes	Estes 1/2A3-2	Good Flight
147	Dave O'Neal	Vulcan	Centuri	Estes C6-3	Good Flight
148	Christina Stauffer	Mirage	Aerotech	Aerotech G40-4W	Good Flight

Fun Contest Flights

149	Flirtin' With Disaster Team	A RG	Estes A3-4	DQ/No Glide
150	Glenn Feveryear	1/2A PD	Estes 1/2A3-4	50.23sec
151	Glenn Feveryear	1/2A PD	Estes 1/2A6-2	27.74sec
152	Glenn Feveryear	D Altitude	Apogee D3-7	820.89m
153	Glenn Feveryear	D Altitude	Estes D12-7	521.04m
154	Glenn Feveryear	A Rocket Glide	Apogee A3-2	84.74sec
155	Glenn Feveryear	A Rocket Glide	Apogee A3-2	142.27sec
156	Dale Greene	D Altitude	Apogee D3-7	771.72m

Launch Statistics

Number of flyers: 29

Weather: Nice

Models Flown:

Estes	43
Scratchbuilt	26
Aerotech	9
Mountainside Hobbies	6
Thoy	5
LOC/Precision	5
North Coast Rocketry	4
AAA Model Aviation	2
Public Missles	2
Centuri	1
Edmunds	1
Flight Systems	1
QCR	1
Quest	1
Unknown	1
Vaughn Brothers	1

Motor Usage:

Estes	107
Aerotech RMS	32
Aerotech Single Use	26
Apogee	6
Flight Systems	2
Vulcan	1

Impulse Distribution:

1/4 A	1
1/2 A	3
A	12
B	15
C	44
D	39
E	14
F	17
G	29

SPAAR Sport Launch

September 29, 1996

by George Beever

Another beautiful day, weather-wise, produced 79 flights by 23 different flyers.

Laurel Balogh flew her Estes Patriot with a C6-5 for a great flight that came down on the school roof. It was recovered the following week by school maintenance personnel, with only a slightly damaged fin.

Joel Wood, another "new" member, flew some of his beautifully finished models, such as the Mountainside Hobbies V-2 and the Gabriel III and Hawk from The Launch Pad. If you haven't seen Joel's work yet, check it out.

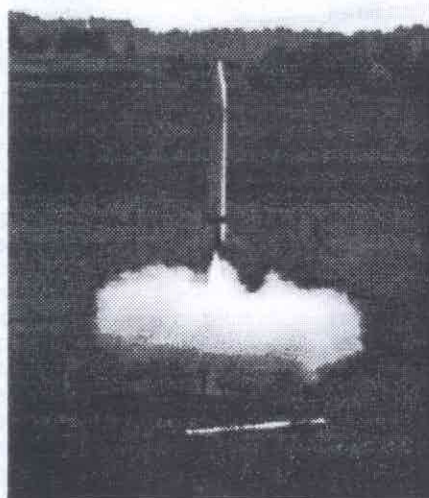
Mark Kamide flew his scratch built scale Viking 10 on Aerotech F25's. Is this a kit in Mountainside's future, Mark?

An old friend from the Allentown area, Bill Middleton, was there. One of Bill's flights was on a Quest Icarus kit, powered by a Flight Systems F7-6 motor. This long thrusting motor is referred to as "The Steam Machine" because its 9 sec-

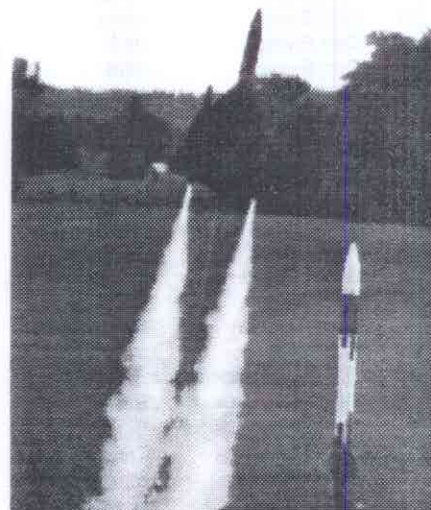
ond, low thrust burn time sounds like, well, a steam machine. The Flight Card is marked "unknown" in the flight result

column, but my guess is that the thing is still hissing over Lancaster County, somewhere!

CD



Mark Kamide's scratchbuilt Viking 10 leaves the pad on an Aerotech F25-4W RMS. (Hackman)



Frank Sombers' scratchbuilt SR-71 takes off on a pair of Estes C6-3s. (Hackman)

Flight Log

#	Flyer	Model	Manufacturer	Motors	Result
1	Laurel Balogh	Patriot	Estes	Estes C6-5	Good Flight
2	Casey Miller	Patriot	North Coast Rocketry	Aerotech F50-6T	Good Flight
3	Casey Miller	Phoenix	Estes	Estes D12-5	Good Flight
4	Casey Miller	Patriot	North Coast Rocketry	Aerotech G80-7T	Good Flight
5	Courtney Sombers	Sidewinder	Estes	Estes C6-7	Good Flight
6	Courtney Sombers	Sidewinder	Estes	Estes C6-7	Good Flight
7	Courtney Sombers	Sidewinder	Estes	Estes C6-7	Good Flight
8	Courtney Sombers	Mosquito	Estes	Estes A10-3	Good Flight
9	Steve Machonis	Mongoose	Estes	Estes C6-0/B6-6	Good Flight
10	Rob Clay	Big Bertha	Estes	Estes B6-4	Good Flight
11	Joel Wood	V-2	Mountainside Hobbies	Estes D12-5	Good Flight
12	Joel Wood	Gabriel III	The Launch Pad	Estes D12-5	Good Flight
13	Joel Wood	Big Bertha	Estes	Estes C6-5	Good Flight
14	Joel Wood	Hawk	The Launch Pad	Estes D12-5	Good Flight
15	Matt Weaver	Tornado	Estes	Estes B6-4	Good Flight
16	Matt Weaver	Payloader	Estes	Estes C5-3	No Chute
17	Matt Weaver	Payloader	Estes	Estes B6-4	Good Flight
18	Adam Jones	Supershot	Estes	Estes B4-4	Good Flight
19	Adam Jones	Supershot	Estes	Estes B4-4	Good Flight
20	Adam Jones	Supershot	Estes	Estes B4-4	Good Flight
21	Chris Balogh	V-2	Mountainside Hobbies	Aerotech G64-4W RMS	Good Flight
22	Corey Kline	Bailout	Estes	Estes B4-4	Good Flight
23	Corey Kline	Bailout	Estes	Estes C6-5	Good Flight
24	Corey Kline	Bailout	Estes	Estes C6-5	Good Flight
25	Corey Kline	Unknown	Estes	Estes B4-4	Good Flight
26	Ben Weaver	Big Bertha	Estes	Estes B6-4	Good Flight
27	Ben Weaver	Big Bertha	Estes	Estes B6-4	Good Flight
28	Ben Weaver	Big Bertha	Estes	Estes B6-4	Good Flight
29	Ben Weaver	Broadsword	Estes	Estes D12-3	No Chute
30	Ben Weaver	Phoenix	Estes	Estes D12-3	CATO

31	Ted Jones	Bullpup 12B	Estes	Estes B4-4	Good Flight
32	Ted Jones	Nittany Lion	Scratch	Aerotech F22-5J RMS	Doink
33	Ted Jones	Aura	LOC/Precision	Estes D12-5	Good Flight
34	Ted Jones	Aura	LOC/Precision	Aerotech E16-7W RMS	Good Flight
35	Ted Jones	No Name	Scratch	Estes C6-3	Good Flight
36	Bill Rhoat	Aerobee-Hi	AAA Model Aviation	Estes D12-5	Good Flight
37	Bill Rhoat	io	Public Missles	Aerotech G33-5J RMS	Good Flight
38	Bill Rhoat	Unknown	Estes	Estes B6-4	Good Flight
39	Bill Rhoat	Astrocarn	Estes	Estes C6-7	Good Flight
40	Rick Hackman	XR-83	Scratch	Estes B4-4	Good Flight
41	Rick Hackman	XR-82A	Scratch	Estes D12-5(3)	Unstable
42	Rick Hackman	XR-12	Scratch	Estes A8-3	Good Flight
43	Rick Hackman	XR-77B	Scratch	Estes D12-5	Good Flight
44	Mark Kamide	Viking 10	Scratch	Aerotech F25-4W	Good Flight
45	Mark Kamide	Viking 10	Scratch	Aerotech F25-4W	Good Flight
46	Mark Kamide	Gnome	Estes	Estes A10-3	Good Flight
47	George Fetter	Astrobee-C	Aerotech	Aerotech F25-4W	Good Flight
48	George Fetter	X-99	Scratch	Aerotech G80-10T	Unknown
49	George Fetter	HL-20	Quest	Estes C5-3	Good Flight
50	George Fetter	HL-20	Quest	Estes C5-3	Good Flight
51	George Fetter	Sidewinder	Estes	Estes B6-2	Good Flight
52	George Fetter	Sandhawk	Mountainside Hobbies	Aerotech G64-4W RMS	Good Flight
53	George Fetter	V-2	Mountainside Hobbies	Aerotech G80-4T	No Chute
54	Guy Destafano	Juice 6959ICWU	Scratch	Aerotech G64-7W RMS	Good Flight
55	Guy Destafano	Centipede	Scratch	Aerotech G80-7T	Good Flight
56	Guy Destafano	Batman	Scratch	Aerotech G40-7W	Good Flight
57	Guy Destafano	Callisto	Public Missles	Aerotech G80-7T	Good Flight
58	Guy Destafano	Peacock	Rocket R&D	Aerotech G64-7W RMS	Good Flight
59	Guy Destafano	Phobos	Public Missles	Aerotech G80-7T	Good Flight
60	Ed Miller	Eliminator	North Coast Rocketry	Aerotech F50-4T	Separation
61	Ed Miller	UFO 24-10+4	Scratch	Aerotech E30-?T/Estes C6-5(4)	Unknown
62	Ed Miller	Tarsis	Scratch	Vulcan G200-5	Good Flight
63	Ed Miller	Super Big Bertha +	Estes	Flight Systems F100-6	Good Flight
64	Ed Miller	UFO 29-10	Scratch	Aerotech G64-4W RMS	Good Flight
65	LeRoy Bonawitz	V-2	Mountainside Hobbies	Estes D12-3	Good Flight
66	LeRoy Bonawitz	V-2	Mountainside Hobbies	Estes D12-3	Good Flight
67	Bob Balogh	Tomahawk	Estes	Estes D12-5	Good Flight
68	Frank Sombers	SR-71	Scratch	Estes C6-3(2)	Good Flight-1st Flight
69	Frank Sombers	V-2	Mountainside Hobbies	Aerotech E30-7T	Good Flight
70	Randy Brust	No Name	Scratch	Estes D12-5	Good Flight
71	Randy Brust	Maniac	Estes	Estes D12-7	Good Flight
72	Randy Brust	Initiator	Aerotech	Aerotech F25-6W	Good Flight
73	Randy Brust	No Name	Scratch	Estes D12-5	Good Flight
74	Randy Brust	Initiator	Aerotech	Aerotech F25-6W	Good Flight
75	Randy Brust	No Name	Scratch	Estes D12-5	Good Flight
76	Bill Middleton	Redliner	Custom	Estes C6-5	Separation
77	Bill Middleton	Unknown	Quest	Estes B6-0/A8-5	Good Flight
78	Bill Middleton	Icarus	Quest	Flight Systems F7-6	Unknown
79	Bill Middleton	Thuria	Thoy	Estes C6-5	Good Flight

Launch Statistics

Number of flyers: 23

Weather: Beautiful

Models Flown:

Motor Usage:

Impulse Distribution:

Estes	23
Scratchbuilt	16
Mountainside Hobbies	6
Public Missles	3
Quest	3
Aerotech	2
North Coast Rocketry	2
The Launch Pad	2
AAA Model Aviation	1
Custom	1
LOC/Precision	1
Rocket R&D	1
Thoy	1

Estes	61
Aerotech Single Use	16
Aerotech RMS	8
Flight Systems	2
Vulcan	1

1/4 A	0
1/2 A	0
A	4
B	17
C	21
D	19
E	3
F	10
G	14

SPAAR Sport Launch

SPAARSPAM

November 3, 1996

by George Beever

SPAAR's Annual Sport launch, Picnic And Meet, otherwise known as SPAARSPAM, was eaten, er, I mean flown, on a cold breezy day. It's November, what do you expect? This was the 7th edition of our version of a football tailgate party, with last year being cancelled due to bad weather. This was one of the best attended and best fed SPAARSPAMs in history. Food of all kind was everywhere. If you didn't have indigestion by the end of the day, it was your own fault! In between mouthfuls, however, we did find time to fly some rockets.

Bill Rhoat flew his AAA Aerobee-Hi, profiled in the last Countdown. It flew great on an Aerotech E18 reload. Bill also flew his PML "Io" on an F40 reload for a good flight.

Rick Hackman flew a Thor-Able look-alike that he calls the "Space Probe" for a good flight. Randy Brust flew his Aero-



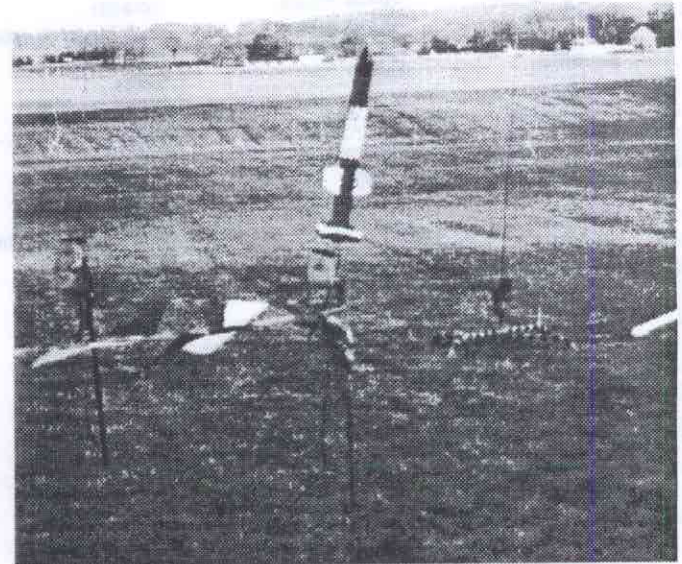
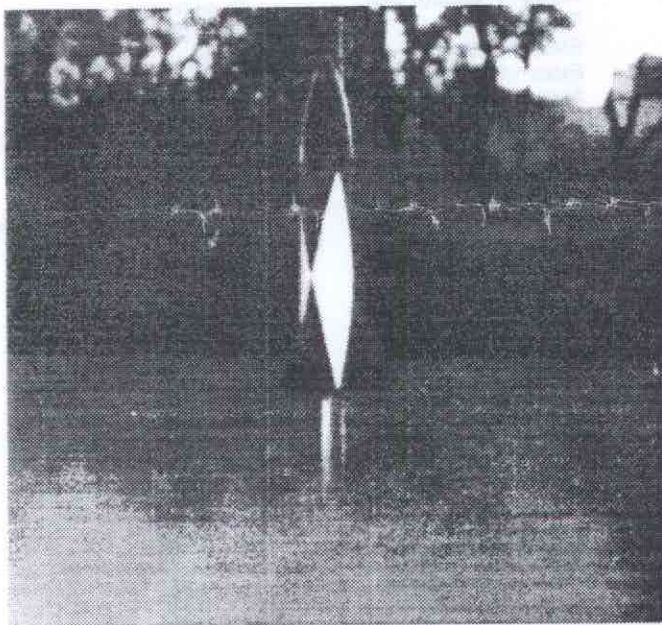
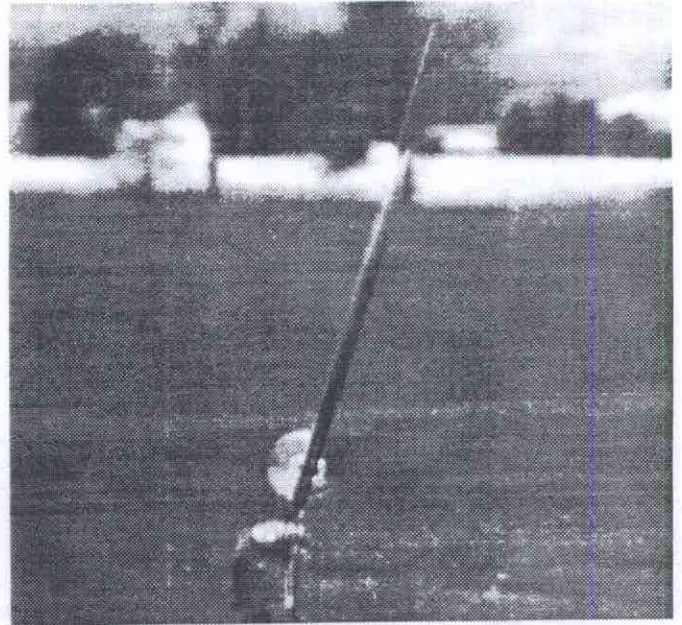
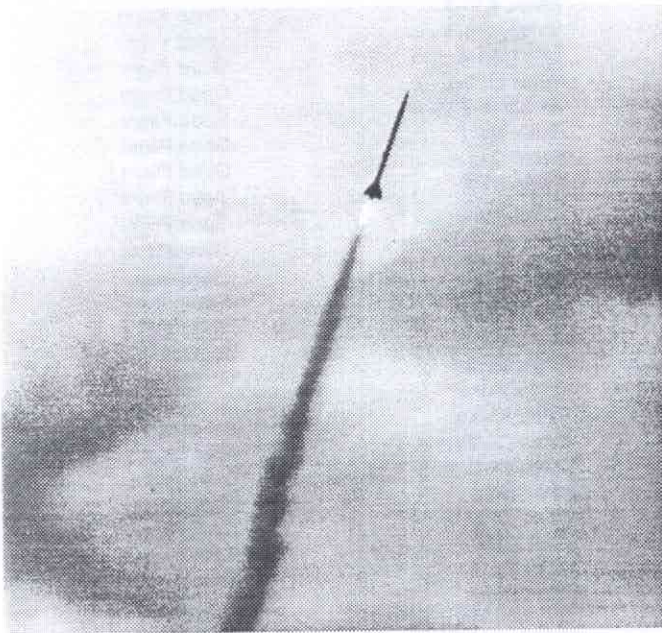
Rockets? What rockets? Oh...yeah...uh...I'll fly one, just give me another minute here. (Beever)

tech Initiator twice on F25's for great flights. This model is painted a very pretty shade of red, and must be seen to be appreciated. The same goes for Joel Wood's model he alternately calls "Big Alph" or "Alpha Mega". Either way, it's

an upscale Estes Alpha with a very sharp black and yellow paint scheme. It flies great on F motors. Joel also flew his Launch Pad Hawk on an Aerotech E30-7 Blue Thunder for a great flight. **CD**



A shot of the crowd at SPAARSPAM '96, and proof that we didn't eat the whole time. (Brust)



Clockwise, from upper-left: Randy Brust's Dart 24 heads skyward on an E15-7W. Matt Zimmerman's CD Rocket is ready to go on an Estes C6-7. Joel Wood's Gabriel III awaits liftoff on an Estes D12-3. George Fetter's LOC Mini Magg is off on an Aerotech G80-4T. (Brust, Hackman, Beever, Hackman)

Flight Log

#	Flyer	Model	Manufacturer	Motors	Result
1	Dan Feveryear	Young One	Scratch	Estes 1/2A3-4	Unstable
2	Dan Feveryear	Mongoose	Estes	Estes B4-4	Good Flight
3	Dan Feveryear	Mongoose	Estes	Estes B4-4	Good Flight
4	Jason Knier	Mini Cobra	Estes	Estes A10-0/A10-3	1/2 Good Flight!
5	Jason Knier	Thunderhawk	Estes	Estes C6-5	Good Flight
6	Jason Knier	Corkscrew	Estes	Estes C6-5	Good Flight
7	Jason Knier	Corkscrew	Estes	Estes C5-3	Good Flight
8	Jason Knier	Thunderhawk	Estes	Estes A8-3	Good Flight
9	Jason Knier	Thunderhawk	Estes	Estes A8-3	Good Flight

10	Jason Knier	Mini Cobra	Estes	Estes A10-3	Good Flight
11	Jason Knier	Mini Cobra	Estes	Estes A10-3	Good Flight
12	Hollis Wood	Yankee	Estes	Estes B4-4	Good Flight
13	Hollis Wood	Mosquito X 6	Scratch	Estes D12-3	Good Flight
14	Hollis Wood	Mosquito X 6	Scratch	Aerotech E30-7T	Good Flight
15	Hollis Wood	Big Bertha	Estes	Estes B4-4	Good Flight
16	Hollis Wood	Mean Machine	Estes	Estes D12-3	Good Flight
17	Hollis Wood	Yellow Jacket	Estes	Estes B4-6	Good Flight
18	Hollis Wood	Reliant	Estes	Estes B4-6	Good Flight
19	Logan Wood	Black Brant II	Estes	Estes D12-3	Good Flight
20	Logan Wood	Alpha	Estes	Estes B4-6	Good Flight
21	Steve Machonis	Hawkeye	Estes	Estes A10-3	Good Flight
22	Steve Machonis	Sparrow	Estes	Estes A10-3	Good Flight
23	Steve Machonis	Sparrow	Estes	Estes A10-3	Good Flight
24	Steve Machonis	Sparrow	Estes	Estes A10-3	Good Flight
25	Steve Machonis	Sparrow	Estes	Estes A10-3	Good Flight
26	Steve Machonis	Sparrow	Estes	Estes A10-3	Good Flight
27	Steve Machonis	Mongoose	Estes	Estes A10-3	Good Flight
28	Steve Machonis	Mongoose	Estes	Estes C6-0/B6-6	Good Flight
29	Steve Machonis	Mongoose	Estes	Estes C6-0/B6-6	Good Flight
30	Matt Zimmerman	CDR	Scratch	Estes B6-4	Good Flight
31	Matt Zimmerman	CDR	Scratch	Estes C6-5	Good Flight
32	Matt Zimmerman	CDR	Scratch	Estes C6-7	Good Flight
33	Mark Kamide	Alpha	Estes	Estes C6-7	Good Flight
34	George Fetter	Extreme 38	Vaughn Brothers	Estes B6-6	Good Flight
35	George Fetter	Mini Magg	LOC/Precision	Aerotech G80-10T	Good Flight-Lost?
36	George Fetter	Sandhawk	Mountainside Hobbies	Aerotech G80-4T	Prang
37	Rick Hackman	XR-83	Scratch	Aerotech G64-4W RMS	Good Flight
38	Rick Hackman	USMC Green Machine	Scratch	Estes A8-3	Good Flight
39	Rick Hackman	Space Probe	Scratch	Estes 1/2A6-2	Unstable
40	Bill Rhoat	Aerobee-Hi	AAA Model Aviation	Estes 1/2A6-2	Good Flight
41	Bill Rhoat	Six-Pack	Pratt Hobbies	Aerotech E18-4W RMS	Good Flight
42	Bill Rhoat	X-15	Estes	Estes B6-4	Good Flight
43	Bill Rhoat	Io	Public Missles	Estes A10-3	Good Flight
44	Randy Brust	Dart 24	Scratch	Aerotech F40-4W RMS	Good Flight
45	Randy Brust	Initiator	Aerotech	Aerotech E15-7W	Good Flight
46	Randy Brust	Initiator	Aerotech	Aerotech F25-6W	Good Flight
47	Joel Wood	Hawk	The Launch Pad	Aerotech F25-6W	Good Flight
48	Joel Wood	V-2	Mountainside Hobbies	Aerotech E30-7T	Good Flight
49	Joel Wood	Big Alph'	Scratch	Estes D12-3	Good Flight
50	Joel Wood	Black Brant VB	Scratch	Aerotech F52-5T RMS	Good Flight
51	Joel Wood	Big Bertha	Estes	Aerotech G64-4W RMS	Good Flight
52	Joel Wood	Gabriel III	The Launch Pad	Estes C6-5	Good Flight
53	George Beever	Mustang	Aerotech	Estes D12-3	Good Flight
54	George Beever	Sidewinder	Estes	Aerotech F50-9T	Good Flight
55	Brian Royer	Nice Machine	Estes	Estes C6-5	Good Flight
56	Brian Royer	Thunderbolt	Scratch	Estes D12-5	Good Flight
57	Guy Destafano	Spirogyra	Scratch	Estes C6-7	Good Flight
58	Guy Destafano	Batman	Scratch	Aerotech F50-6T	Good Flight
59	Guy Destafano	Juice	Scratch	Aerotech G40-7W	Good Flight
60	Guy Destafano	Legacy	LOC/Precision	Aerotech G64-4W RMS	Good Flight
61	Guy Destafano	Peacock	Rocket R&D	Aerotech G40-10W	Good Flight
				Aerotech G64-7W RMS	Good Flight

Launch Statistics

Number of flyers: 15

Weather: Cold and Breezy

Models Flown:

Motor Usage:

Impulse Distribution:

Estes	19
Scratchbuilt	13
Aerotech	2
LOC/Precision	2
Mountainside Hobbies	2
The Launch Pad	2
AAA Model Aviation	1
Pratt Hobbies	1
Public Missles	1
Rocket R&D	1
Vaughn Brothers	1

Estes	46
Aerotech Single Use	11
Aerotech RMS	7

1/4 A	0
1/2 A	3
A	14
B	12
C	11
D	6
E	4
F	6
G	8

Kit Review

Estes AIM-9L Sidewinder
by George Beever

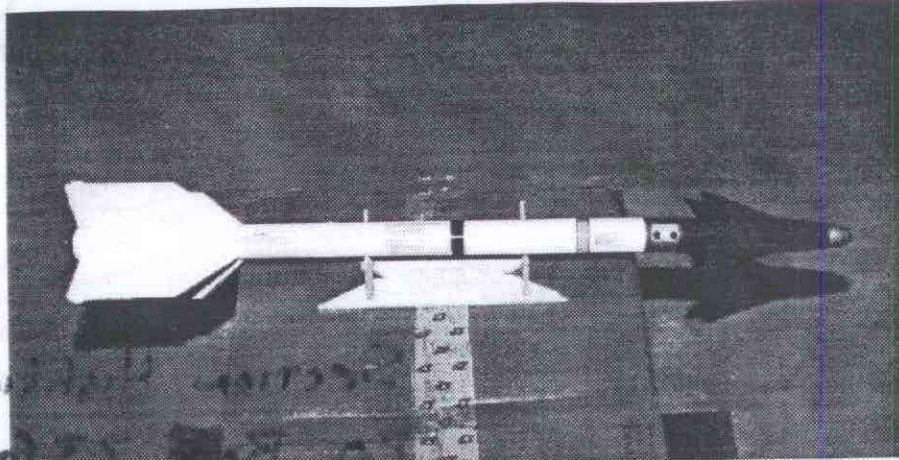
In early 1996, Estes released a kit of the AIM-9L Sidewinder air-to-air missile as part of their Skill Level 1 Beta Series. I bought one for two reasons: I am a scale model freak, and the price. I picked one up for around \$10. Not bad for scale.

The packaging is pretty nifty. The kit comes in a box, with nice graphics depicting the finished product. But as the old saying goes, you can't (or don't) fly the package.

I got off on the wrong foot with this kit, as the first thing I saw was the body tubing that Estes used. It is 1.325" in diameter, the same as a standard BT-55. However, it has thicker walls, presumably for strength, and is white in color. However, the body tube spirals in this stuff were deep enough to plant corn in. I absolutely despise filling body tube spirals, and generally don't bother with it unless I'm building a scale model. So, out came the Green Putty. Fill, fill, sand, sand, grumble, grumble.

The rest of the kit is pretty much standard Estes stuff. The molded nose cone is very nice, giving the Sidewinder model the kind of detail it needs to be believable. The rear fins are made from two sections glued together, with the distinctive Sidewinder rollerons part of the fin pattern itself.

My next unpleasant surprise came when it was time to finish the model. The body tubing soaked up primer like a sponge, a rough one at that. Sand, sand,



The completed Estes AIM-9L Sidewinder. (Beever)

grumble, grumble. Then came those things that I believe should be banned from the face of the earth: self adhesive decals. They're dumb, way too thick, ugly, hard to work with, and unrealistic in appearance. Give me the old-fashioned water soluble ones anytime. What's even weirder: remember those rollerons on the fins? The decal sheet has something on them that I think is supposed to simulate them. The box graphics show an extra cut or two in the balsa at this area but don't bother looking for this in the instructions. These things aren't mentioned anywhere. Strange.

The Sidewinder is recommended to fly with B6-4, B8-5, C5-3 or C6-5 motors. The B motors just don't have what it takes to give the model anything like a nice flight. With the C5, you're taking a risk that a CATO will destroy the model you've just worked so hard on (fill, fill). So, that leaves the C6. On -3 or -5 second delays, the Sidewinder turns in a decent flight.

The only alternative is the Aerotech D21, and this motor sends the AIM-9L for a ride. I just don't know how many flights the model has in it with this motor before things start coming apart ("Captain, she's breaking up!").

I must admit that the finished model looks pretty nice, and should be part of any scale enthusiast's collection. As a Skill Level 1 kit, it's right on the mark, and would be a good first scale kit for beginning modelers. The price is right, too. But those tube spirals have to go!

Likes: Overall concept, price, general appearance, molded nose section.

Dislikes: Body tube spirals, decals, slightly underpowered.

Specifications:

Length: 30.2"
Diameter: 1.325"
Weight: 4.2oz.

CD

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)

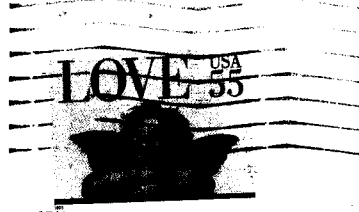
For more information on the TRA, write:

Tripoli Rocketry Association
PO Box 280
Bessemer, AL 35021-0280

COUNTDOWN

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