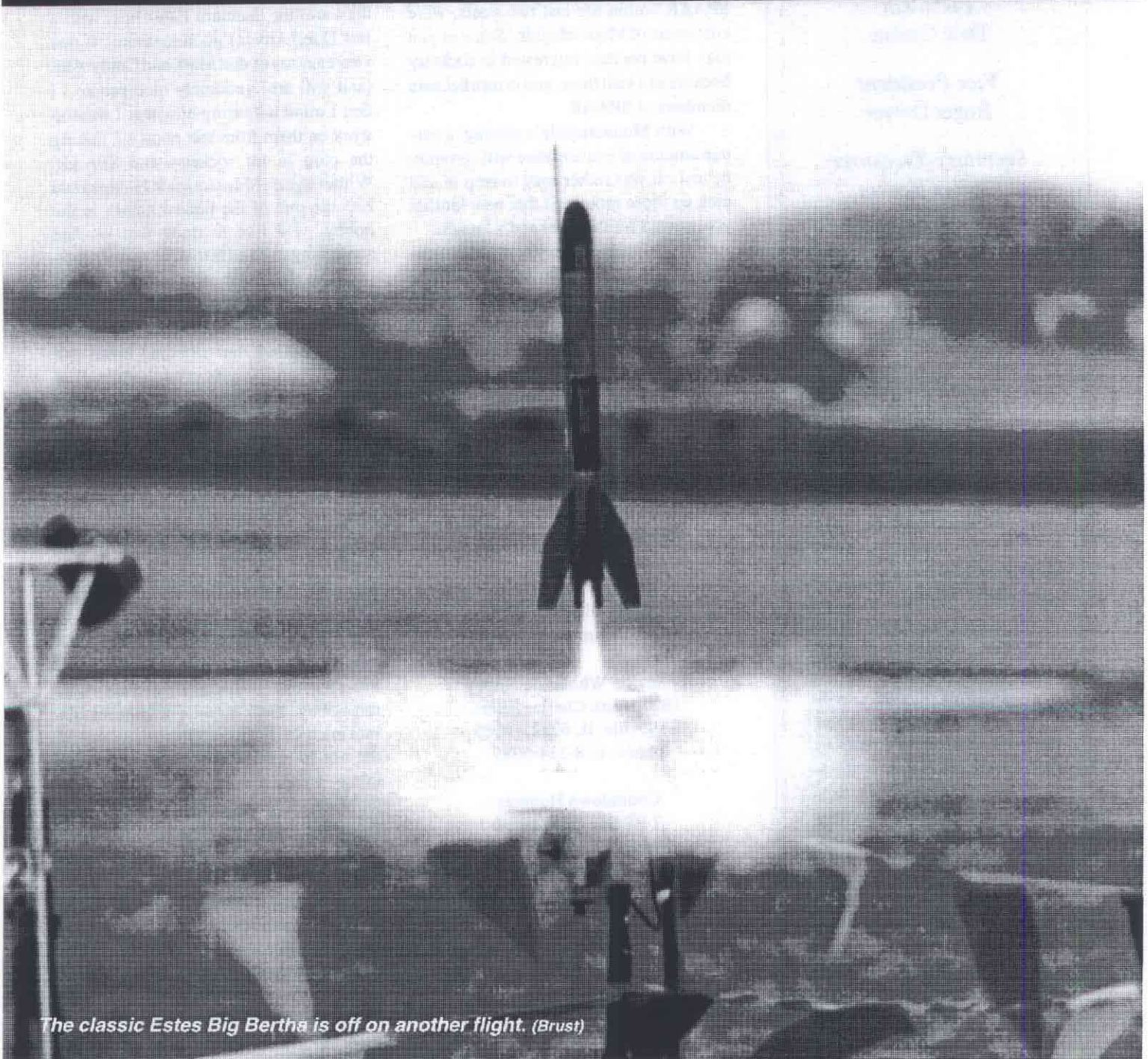


COUNTDOWN

Official Newsletter of SPAAR

THE SOUTHERN PENNSYLVANIA AREA ASSOCIATION OF ROCKETRY



The classic Estes Big Bertha is off on another flight. (Brust)

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COUNTDOWN

Volume 10, Issue 2
March/April 1997

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Rick Hackman

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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Reamstown, PA. 17567

**The Editors' Corner****Life After Mountainside Hobbies:**

Most of you are aware that by the time you read this Mountainside Hobbies will be a thing of the past. We realize that many of our newer members, those who have joined SPAAR within the last two years, were customers of Mountainside. Some of you may have become interested in rocketry because of a visit there, and in turn became members of SPAAR.

With Mountainside's closing, a certain amount of convenience will certainly be lost. It was rather easy to stop in and pick up those motors or that new kit that you wanted for the weekend's launch.

So, before any of you start to contemplate jumping off of the nearest cliff, or worse, giving up on rocketry, you should know that there are other places to get your rocketry fix. Here are some:

Discount Rocketry
25944 Kaywood Ct.
Escondido, CA 92026-8408
phone: 619-432-9626
www.discountrocketry.com

Commonwealth Displays
12649 Dix
Southgate, MI 48195
phone: 313-282-1055
www.commonwealth.net

Belleville Wholesale Hobby
1827 North Charles Street
Belleville, IL 62221-4025
phone: 618-234-5989

Countdown Hobbies
7 PT Barnum Square
Bethel, CT 06801-1838
phone: 800-810-0281
countdown_hobbies@compuserve.com

Magnum, Inc
PO Box 124
Mechanicsburg, OH 43044
phone: 513-834-3306
www.magnumrockets.com

Personal Note: The relationship that existed between SPAAR and Mountainside was unique, to say the least. I can clearly remember the first time that

I stopped into the shop, in September of 1994. I had used the tried-and-true "Dear, I'm going to take Mark (our son, 5 at the time) down to that new hobby shop so he can see it" ploy. Mark and Cindy had a lot of R/C stuff in there; R/C airplanes, cars, this and that. Where are the rockets? Here they are, the standard Estes line, with a few Quest kits for good measure. It was very easy to see that Mark and Cindy were (and still are) genuinely nice people. I don't mind admitting now that I went to work on them from that point on, putting the plug in for rocketry and SPAAR. Within a year, Mountainside Hobbies had become one of the hottest names in the hobby. I'd like to think that we had something to do with that, however small.

The old, worn out phrase, "all good things must come to an end" is pretty appropriate here. I had often kidded Mark that he should start stocking bread and milk. When my wife would send me out on a milk and bread run in the evening, I somehow wound up at Mountainside. That was pretty weird considering the fact that the grocery store and Mountainside are on opposite sides of town. Most times I bought something, many other times I just hung out making a pain out of myself. Funny, but my wife never asked why it took so long just to get bread and milk. Ahh, she knew.

I also was fortunate enough to get a "look behind the scenes", which is something that has always fascinated me about this hobby. I was able to get some insight into many of the good things, and some of the not-so-good things. Some of these things were, and are, somewhat disappointing. It is sometimes easy to forget that while most of us consider rocketry as a form of relaxation, it is still for others nothing more than a business.

Things will undeniably be different without Mountainside Hobbies. After all, having a place that concentrated on my hobby, right in the town that I lived in was great. But more than anything, the people made it great. However, life goes on. I wish the best to Mark and Cindy, and thanks for everything. Oh well, there is one good thing, milk and bread runs won't take so long anymore.

George

discussed this, and Randy has or will be submitting it.

Old Business: Glenn advised that he had not heard anything definitive yet from Vaughn Brothers regarding the HPR launch system. Further discussion on the offer from Mountainside Hobbies regarding the purchase of two *Quad-Pods*. Result was an affirmation to get the purchase of the equipment from VBR accomplished first.

New Business: John Yost brought up the idea of renting a *store-and-lock* type of

facility in the Denver area to store the club's launch equipment. Discussion: this has been brought up before, and now may be a more attractive idea considering the proposed addition of the new system from VBR. It's a lot of equipment for one or more persons to haul around. However, the negatives to the idea are: 1, cost; and 2, we will still need people to haul the equipment to and from the storage sight to Cocalico. Dale Greene and John Yost offered to check on some prices in the Denver area. George Beever offered the use of the storage shed in his backyard, providing that other members are avail-

able to help transport the equipment.

Chairpersons for the standing Committees 1997 were appointed by the president:

High power Rocketry Committee: Ed Miller, Roger Dwyer alternate.

Education Committee: Guy Destefano.

Contest & Records Committee: Glenn Feveryear.

Operations Committee: George Beever.

General discussion followed, and the meeting adjourned at 10:30AM. **CD**

Section Meeting Minutes

by George Beever

February 22, 1997

Present: G. Beever, D. Feveryear, Gary Feveryear, Glenn Feveryear, D. Greene, D. O'Neal, B. Royer.

Meeting called to order at 9:10AM.

Committee Reports:

Section Advisor: Glenn Feveryear reported that he has received the section charter from the NAR, and that George Beever has delivered our launch schedule and insurance information to the Cocalico School District. In addition, the school district was advised by George that SPAAR's club activities are limited to those dates listed on the schedule. They were further advised that any other rocketry activities on school district property, involving persons who may or may not be members, are not covered by our section insurance.

Treasurer: George Beever provided the following report. Previous balance: \$757.96. Expenditures: \$83.60 for copy services and postage. Income: \$77.50 in dues. Current balance, \$751.86. Also, a checking account has been opened at Ephrata National Bank and reminders have been mailed to members whos member-

ships have expired.

HPR: No report.

Competition: Glenn Feveryear passed around information on upcoming contests in New Jersey, Pennsylvania, New York, and Virginia. He reported that he has received the section insurance certificate from the NAR. He is still negotiating with Allentown College regarding RAMTEC-5. Glenn also passed around latest US Performance Records, as of February 11, 1997. He asked for opinions whether we should apply for a sanction through the NAR for the May 25th Record Trials, or should we concentrate on club records? Discussion followed. Dale Greene stated that unless there was an objection, he favored spending the \$5 for the sanction. George Beever added that some of the new members may not know exactly what a Record Trial is. More discussion ensued regarding the number of NAR members in the club. A decision was made to apply for the sanction as originally planned.

Newsletter: George Beever reported that a new copy service was used for the January/February issue. Due to the process used and the number of pages, the costs were higher than normal. Glenn Feveryear added that he and Randy Brust had made the newsletter available on the Internet.

Old Business: Glenn Feveryear stated that he had received a response from Vaughn Brothers regarding the HPR Launch Sys-

tem that we hope to purchase. Apparently, it is not yet ready for shipment. A vote was taken on the By-Laws amendment that was published as required in the last Countdown. Measure passed by voice vote. The measure incorporates the Tripoli Rocketry Association Safety Code. It was reported that Mark Kamide has offered to donate a Quad Pod to the club for HPR use.

New Business: On behalf of Randy Brust, Glenn Feveryear brought up the idea of manning a rocketry information booth in local shopping malls. Glenn brought up the idea of a survey of the membership, to capture such information as NAR and/or Tripoli membership, and what a member can or will volunteer for, etc. George Beever made note that a number of the newer members have been volunteering for RSO/LCO duties at launches. He will try to write up a *job description* to help them out. Glenn inquired as to the state of repair of the launch system in regards to microclips, leads, etc. The system is in good shape. Brian Royer asked for some guidance on what he can or cannot do in regards to high power rocketry, specifically the purchase and use of high power motors, etc. Dale Greene gave a summary of the minutes of the recent NAR Board of Trustees meeting.

Those present then watched a videotape from the February 2 Sport Launch. The meeting adjourned at 10:45AM. **CD**

Section News Notes

by Randy Brust

Propellant Hogs:

Roger Dwyer and Ed Miller plan to try for their level three certifications at Cedarville if Aerotech can produce enough propellant. Rumor has it that they had to take out second mortgages!

RAMTEC-5:

For the fifth straight year, SPAAR will host a regional meet at Allentown College in Center Valley, PA over the weekend of June 14th & 15th. This is an NAR sanctioned contest with sport flying welcome and encouraged. The contest events this year will be: 1/2A Streamer Duration, A Super-Roc Duration, A Rocket/Glider Duration, D Helicopter Duration, and A Payload Altitude. Housing is available on-site in the dorms, with air-conditioning no less!

If you've been thinking of trying your hand at a model rocketry contest, come on out and give it a shot. If contests aren't your thing, or if you've never been exposed to this facet of the hobby before, come on out. If you just want to sport fly, come on out. If you just want to spend a weekend hanging out, relaxing, and smelling rocket exhaust ad nauseam, come on out. Whatever the reason or excuse, by all means, come on out! For more informa-

tion, contact Glenn Feveryear at 717-456-5570.

Also, check elsewhere in this issue of the Countdown for further information regarding RAMTEC-5 including an application form.

SPAARTREK:

Don't forget our new step-by-step educational program for new and old members alike. There are 3 levels: Basic, Intermediate, and Advanced. This program is a great way to learn just how rockets work while providing challenges to the modeler. For more information, call George Beever at 717-733-4170.

Launch Day Hotline:

On launch days, George Beever will be setting up his phone as an information hotline. If the weather looks iffy and your not sure if the equipment will be at the field, call 717-733-4170 for a recorded message. This will be particularly useful for those of you that have to travel a distance to get to Cocalico High School. For 1PM launches the message will be available from 10AM to 12PM. For 3PM launches, 12PM to 2PM.

Upcoming Events:

Sunday, April 6, 1997 - SPAAR High Power Launch, 9AM to 5PM at Kirkwood

Farms. Waiver applied for.

Saturday, April 12 - Sunday, April 13, 1997 - RATS V High Power Meet, 9AM to 5PM at Cedarville, NJ. Contact Damian Russo at 609-794-2689.

Saturday, April 12 - Sunday, April 13, 1997 - East Coast Regional Meet (ECRM) hosted by NARHAMS, Middletown, MD.

Sunday, April 13, 1997 - SPAAR Sport Launch, 1PM to 5PM at Cocalico High School. SPAARTREK kick-off.

Friday, April 18, 1997 - SPAAR Monthly Meeting, APRIA Community Room, 7PM to 9PM.

Saturday, May 3 - Sunday, May 4, 1997 - High Power Meet, 9AM to 5PM at Culpeper, VA. Contact Mike Showalter at 540-547-2539.

Sunday, May 4, 1997 - SPAAR Sport Launch, 1PM to 5PM at Cocalico High School.

Friday, May 16, 1997 - SPAAR Monthly Meeting, APRIA Community Room, 7PM to 9PM.

Sunday, May 25, 1997 - SPAAR/NAR Record Trials, 9AM to 5PM at Cocalico High School. **CD**

Section Meeting Minutes

by George Beever

January 25, 1997

Present: G. Beever, Gary Feveryear, Glenn Feveryear, D. Greene, D. Weinhold, John Yost.

Meeting called to order at 9:10AM.

Committee Reports:

Section Advisor: No report.

Treasurer: Gary Feveryear provided the following report. Previous balance: \$749.83. Expenditures: \$25.00 for copy services. \$55.00 for annual NAR Section charter renewal. Income: \$1.00 for photo. \$85.00 in dues. \$2.13 in interest. Current balance, \$757.96.

HPR: Ed Miller, Chairman, not present. Discussion on "Easy Access" issue, the BATF, and the NAR letter writing campaign regarding same.

Competition: Glenn advised of the upcoming meets in our area: an Open Meet in New Jersey in March (GSSS); the East Coast Regional Meet (ECRM), April 12-

13 in Middletown, MD., hosted by NARHAMS; and the MARS-21 Regional in May, hosted by NOVAAR in Virginia. George Beever, question: do you know what events are scheduled for which day at ECRM? Glenn replied that he did not know, but suggested contacting Jim Filler.

Newsletter: George Beever reported that the January/February issue should be out to the members by early to middle of February. Randy Brust is requesting photos from members for publication. They will be returned. Glenn asked if the newsletter is being submitted for consideration to the proper NAR judging committee. George replied that he and Randy have

SPAAR Sport Launch

February 2, 1997

by George Beaver

FIRST THINGS FIRST: The Ground Hog Day Sport Launch was a huge success because of people like Stephen Knight, Matt Zimmerman, Brian Royer, Mark Kamide, Roger Dwyer, John Yost, and George Fetter. These are the guys who served as Launch Control Officers, Range Safety Officers, and Range Spotters. It was the work that these guys put forth that allowed everyone else to have a good and safe time flying rockets. In particular, Stephen, Matt, and Roger put in so much time that they couldn't fly as much as they might have wanted. Our hats are off to you guys. Thanks!

With temperatures in the mid-40's and winds at only 6mph (in February no less!), is it any surprise that so many people showed up? In all, 30 flyers had 108 flights leave the pads, with probably that many people there just to watch. It looked like a typical July or August sport launch.

The good old dependable Estes Big Bertha proved its continuing popularity by being flown a total of 17 times by 3 different flyers, using A's, B's, and C's. Ben Weaver, Ryan Weaver, and Brian Royer certainly got their money's worth.

A couple of the neatest flights of the day were from Corey Kline's Estes SR-



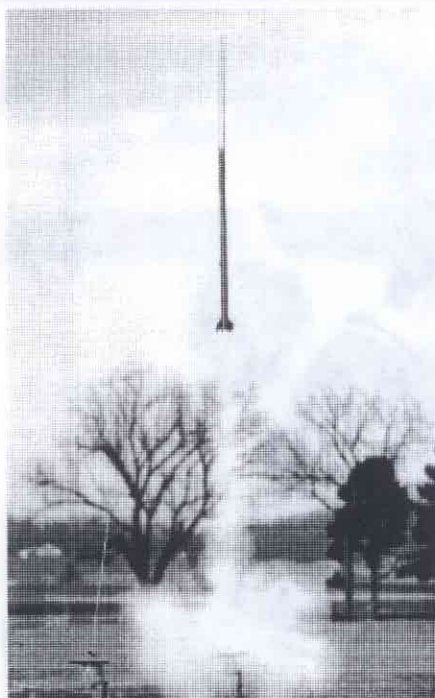
Ryan Weaver prepares his Big Bertha for one of eight flights. The Big Bertha flew on A, B and C motors. (Brust)

X. The model flew as advertised, gliding nicely. Matt Zimmerman's John Deere had another great flight, but the little

farmer on the parachute might be plowing that big field in the sky; he never returned. **CD**



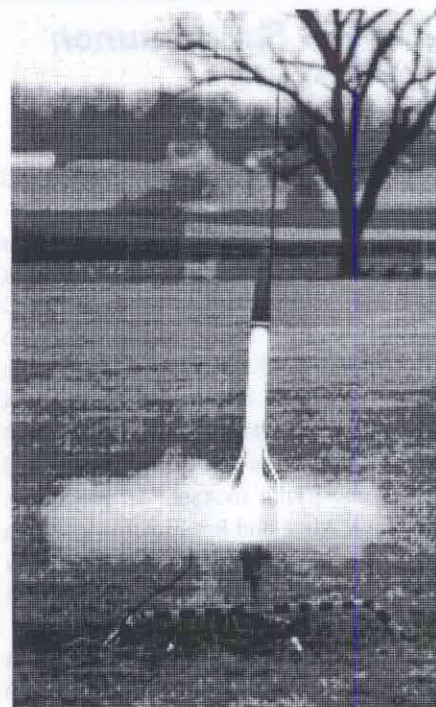
February 2nd? Yeah, believe it or not! An absolutely beautiful day for rocket flying resulted in an extremely large turn-out for a February launch. 30 flyers put up 108 flights. (Bonawitz)



Matthew Myers's Mean Machine on an Estes D12-5. (Brust)



Glenn Feveryear's Astrobee 1500 on an AT F25-4W. No B2-0s! (Brust)



Craig Myers' Initiator just lighting an Aerotech E16-4W RMS. (Brust)

Flight Log

| # | Flyer | Manufacturer | Model | Motors | Result |
|----|------------------|----------------------|------------|---------------------|-------------|
| 1 | Erin Beever | Estes | Raider | Estes A10-3 | Good Flight |
| 2 | Erin Beever | Estes | Raider | Estes A10-3 | Good Flight |
| 3 | George Beever | North Coast Rocketry | Big Brute | Aerotech RMS F40-4W | Good Flight |
| 4 | George Beever | Estes | GEO SAT LV | Estes C5-3 | Good Flight |
| 5 | George Beever | Custom | Matra | Estes D12-7 | Good Flight |
| 6 | George Beever | Flight Systems | Maverick | Estes D12-7 | Good Flight |
| 7 | George Beever | Estes | Pathfinder | Estes D12-7 | No chute |
| 8 | George Beever | North Coast Rocketry | Tempest | Aerotech RMS F24-4W | Good Flight |
| 9 | Mark Beever | Estes | Intruder | Estes A10-3 | Good Flight |
| 10 | Mark Beever | Estes | Intruder | Estes A10-3 | Good Flight |
| 11 | Leroy Bonawitz | LOC/Precision | Onyx | Aerotech E30-4T | Good Flight |
| 12 | Randy Brust | Scratch | Dart 24 | Aerotech E15-4W | Good Flight |
| 13 | Randy Brust | Scratch | Dart 24 | Aerotech E15-4W | Good Flight |
| 14 | Randy Brust | Aerotech | Initiator | Aerotech F25-6W | Good Flight |
| 15 | Roger Dwyer | LOC/Precision | Onyx | Aerotech RMS F40-4W | Good Flight |
| 16 | Roger Dwyer | Rocket R&D | Robin | Aerotech RMS D15-4T | Unstable |
| 17 | George Fetter | Aerotech | Astrobee | Aerotech RMS G64-7W | Good Flight |
| 18 | George Fetter | LOC/Precision | Aura | Aerotech G80-10T | Good Flight |
| 19 | George Fetter | LOC/Precision | LOC IV | Aerotech G40-7W | Good Flight |
| 20 | George Fetter | LOC/Precision | LOC IV | Aerotech G80-7T | Good Flight |
| 21 | George Fetter | LOC/Precision | LOC IV | Aerotech G40-7W | Good Flight |
| 22 | George Fetter | Aerotech | Mirage | Aerotech RMS G64-7W | Good Flight |
| 23 | George Fetter | Aerotech | Mirage | Aerotech RMS G64-7W | Good Flight |
| 24 | Daniel Feveryear | Estes | F-22 | Estes B6-2 | Good Flight |
| 25 | Daniel Feveryear | Estes | F-22 | Estes C6-5 | Good Flight |
| 26 | Daniel Feveryear | Estes | F-22 | Estes B6-2 | Good Flight |

| | | | | | |
|----|------------------|--------------------|---------------|--------------------------------|--------------|
| 27 | Glenn Feveryear | Scratch | Astrobee 1500 | Aerotech F25-4W/Apogee B2-0(2) | Good Flight |
| 28 | Mike Frybarger | Estes | Flash | Estes C6-7 | Good Flight |
| 29 | Mike Frybarger | Estes | Flash | Estes C6-7 | Good Flight |
| 30 | Mike Frybarger | Estes | Flash | Estes B6-4 | Good Flight |
| 31 | Mark Kamide | Estes | Maniac | Estes D12-7 | Good Flight |
| 32 | Mark Kamide | Scratch | Viking 10 | Aerotech F50-4T | Good Flight |
| 33 | Corey Kline | Estes | Bailout | Estes C6-5 | Good Flight |
| 34 | Corey Kline | Estes | Bailout | Estes C6-5 | Good Flight |
| 35 | Corey Kline | Estes | Bailout | Estes C6-5 | Good Flight |
| 36 | Corey Kline | Estes | SR-X | Estes C6-3 | Good Flight |
| 37 | Corey Kline | Estes | SR-X | Estes C6-3 | Great Flight |
| 38 | Corey Kline | Estes | Unknown | Estes C6-5 | Good Flight |
| 39 | Jason Knier | Estes | Firestreak | Estes A8-3 | Good Flight |
| 40 | Jason Knier | Quest | HL-20 | Estes B6-4 | Good Flight |
| 41 | Jason Knier | Quest | HL-20 | Estes B6-4 | Good Flight |
| 42 | Jason Knier | Quest | HL-20 | Estes C6-5 | Good Flight |
| 43 | Jason Knier | Estes | Mean Machine | Estes D12-5 | Good Flight |
| 44 | Jason Knier | Estes | Mean Machine | Estes D12-5 | Good Flight |
| 45 | Jason Knier | Estes | Scorpion | Estes C6-5 | Good Flight |
| 46 | Jason Knier | Estes | Scorpion | Estes A8-3 | Rocket Lock |
| 47 | Stephen Knight | Estes | Comanche 3 | Estes D12-0/C6-0/C6-5 | Hmmm..... |
| 48 | Stephen Knight | Scratch | Delta V | Estes C6-5 | Good Flight |
| 49 | Stephen Knight | Scratch | Delta V | Estes B6-4 | Good Flight |
| 50 | Stephen Knight | Estes | Loadstar | Estes C6-0/C6-5 | Good Flight |
| 51 | Stephen Knight | QCR | Rotaroc | Estes B6-4 | Good Flight |
| 52 | Robert Kurpiel | Estes | Bullpup 12D | Estes B6-4 | Good Flight |
| 53 | Robert Kurpiel | Estes | Bullpup 12D | Estes B6-6 | Good Flight |
| 54 | Robert Kurpiel | Estes | Sparrow | Estes A10-3 | Good Flight |
| 55 | Steve Machonis | Estes | Hawkeye | Estes A10-3 | Good Flight |
| 56 | Steve Machonis | Estes | Mongoose | Estes C6-0/C6-7 | Good Flight |
| 57 | Steve Machonis | Estes | Sparrow | Estes A10-3 | Doink |
| 58 | Steve Machonis | Estes | Zinger | Estes C6-7 | Good Flight |
| 59 | Steve Machonis | Estes | Zinger | Estes C6-7 | Good Flight |
| 60 | Ian McGinn | Estes | Super Shot | Estes C6-7 | Good Flight |
| 61 | Ian McGinn | Estes | Super Shot | Estes C6-7 | Good Flight |
| 62 | Ian McGinn | Estes | Super Shot | Estes B6-4 | Good Flight |
| 63 | Ian McGinn | Estes | Super Shot | Estes A8-3 | No chute |
| 64 | Ian McGinn | Estes | Super Shot | Estes C6-0 | Good Flight |
| 65 | Craig Myers | Aerotech | Initiator | Aerotech RMS E16-4W | Good Flight |
| 66 | Craig Myers | Aerotech | Initiator | Aerotech RMS E16-4W | Good Flight |
| 67 | Matthew Myers | Estes | Mean Machine | Estes D12-5 | Good Flight |
| 68 | Janet Post | Estes | Athena | Estes B6-4 | Good Flight |
| 69 | Brian Royer | Estes | Bailout | Estes C6-3 | Good Flight |
| 70 | Brian Royer | Estes | Big Bertha | Estes C6-3 | Good Flight |
| 71 | Brian Royer | AAA Model Aviation | Laser Sonic | Aerotech RMS G64-4W | Good Flight |
| 72 | Brian Royer | Scratch | No Fear | Estes C6-3(3) | Good Flight |
| 73 | Brian Royer | Scratch | Super Alpha | Estes C6-7 | Good Flight |
| 74 | Brinton Schlegel | Estes | Cobra | Estes A10-0/A10-3 | Good Flight |
| 75 | Brinton Schlegel | Estes | Helicat | Estes C6-5 | Good Flight |
| 76 | Brinton Schlegel | Estes | Maniac | Estes D12-5 | Separation |
| 77 | Jillane Schlegel | Estes | Alpha III | Estes B6-4 | Good Flight |
| 78 | Robin Schlegel | Estes | Alpha III | Estes B6-6 | Good Flight |
| 79 | Frank Sombers | Scratch | Arrow | Estes D12-7 | Good Flight |
| 80 | Frank Sombers | Scratch | SR-71 | Estes C6-5(2) | Good Flight |

| | | | | | |
|-----|----------------|----------------------|-------------------|---------------------|-------------|
| 81 | Frank Sombers | Mountainside Hobbies | V-2 2.6" | Aerotech E30-7T | Good Flight |
| 82 | Ryan Weaber | Estes | Big Bertha | Estes B6-4 | Good Flight |
| 83 | Ryan Weaber | Estes | Big Bertha | Estes C6-3 | Good Flight |
| 84 | Ryan Weaber | Estes | Big Bertha | Estes C6-5 | Good Flight |
| 85 | Ryan Weaber | Estes | Big Bertha | Estes C6-3 | Good Flight |
| 86 | Ryan Weaber | Estes | Big Bertha | Estes A8-3 | CATO |
| 87 | Ryan Weaber | Estes | Big Bertha | Estes C6-3 | Good Flight |
| 88 | Ryan Weaber | Estes | Big Bertha | Estes B6-4 | Good Flight |
| 89 | Ryan Weaber | Estes | Big Bertha | Estes A8-3 | Good Flight |
| 90 | Ryan Weaber | Estes | Helicat | Estes C6-5 | Good Flight |
| 91 | Ryan Weaber | Estes | Helicat | Estes C6-5 | Good Flight |
| 92 | Ryan Weaber | Estes | Sidewinder | Estes C6-5 | No chute |
| 93 | Ben Weaver | Mountainside Hobbies | ADR 4.0 | Aerotech RMS F40-4W | Good Flight |
| 94 | Ben Weaver | Estes | Big Bertha | Estes B6-4 | Good Flight |
| 95 | Ben Weaver | Estes | Big Bertha | Estes B6-4 | Good Flight |
| 96 | Ben Weaver | Estes | Big Bertha | Estes B6-4 | Good Flight |
| 97 | Ben Weaver | Estes | Big Bertha | Estes C6-5 | Good Flight |
| 98 | Ben Weaver | Estes | Big Bertha | Estes A8-3 | Good Flight |
| 99 | Ben Weaver | Estes | Big Bertha | Estes A8-3 | Good Flight |
| 100 | Ben Weaver | Estes | Big Bertha | Estes B6-4 | Good Flight |
| 101 | Ben Weaver | Estes | Big Bertha | Estes A8-3 | Good Flight |
| 102 | Matt Weaver | Mountainside Hobbies | ADR 4.0 | Aerotech RMS F40-4W | Good Flight |
| 103 | Matt Weaver | Estes | Skywinder | Estes C6-5 | Good Flight |
| 104 | Matt Weaver | Estes | Skywinder | Estes C6-3 | Good Flight |
| 105 | Matt Weaver | Estes | Tornado | Estes A8-3 | Good Flight |
| 106 | John Yost | Scratch | Triple B | Estes C6-3 | Good Flight |
| 107 | Matt Zimmerman | Scratch | CDR | Estes C6-5 | Good Flight |
| 108 | Matt Zimmerman | Aerotech | John Deere/Mirage | Aerotech RMS G64-4W | Good Flight |

Launch Statistics

Number of Flyers: 30 Weather: Partly Cloudy, Mid-40s, Light Wind

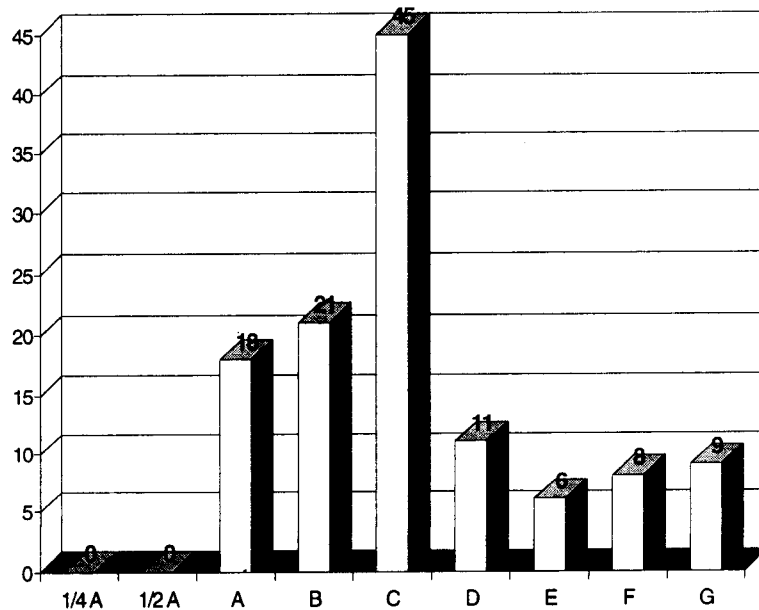
Models Flown:

| | |
|----------------------|----|
| Estes | 36 |
| Scratchbuilt | 10 |
| Aerotech | 5 |
| LOC/Precision | 4 |
| Mountainside Hobbies | 2 |
| North Coast Rocketry | 2 |
| AAA Model Aviation | 1 |
| Custom | 1 |
| Flight Systems | 1 |
| QCR | 1 |
| Quest | 1 |
| Rocket R&D | 1 |

Motor Usage:

| | |
|---------------------|----|
| Estes | 92 |
| Aerotech RMS | 13 |
| Aerotech Single Use | 11 |
| Apogee | 2 |

Impulse Distribution:



SPAAR Sport Launch

March 9, 1997

by George Beever

Despite deteriorating weather conditions on March 9, another big crowd was on hand. It was sunny with a light breeze at 1PM, but by 5PM the wind had picked up, bringing in clouds and lower temperatures. In short, it was nasty!

Brian Royer's Green Machine was first off the pads, on a G64 reload. A broken shock cord caused a separation,



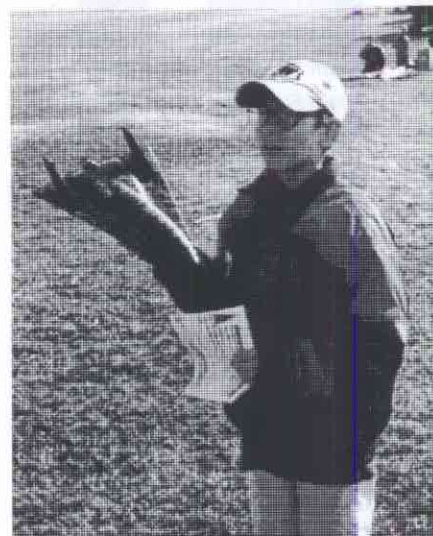
Joel Hildebrand's Sidewinder ready to launch on an Estes C6-5. (Beever)

but there was a happy ending. The nose cone and parachute were found and returned a few days later. Brian also flew *The Mutt*, a homebrew design. We have no idea why he calls it that, but that puppy will hunt. It flew great on a G33.

Hey, who was that strange man? Why, it was none other than the Prez himself, Dale Greene! You almost have to pity the poor guy. Here he is, the club president, but because of some ungodly work hours he rarely gets the chance to attend launches, much less fly rockets. But fly he did, with some mixed results. Dale flew his Aerotech Arreaux on an E15-7W. This particular E15 had one of those *variable* delays that we've come to know, love, and almost expect out of Aerotech motors. It was an awful long 7 seconds. The result was a much shorter Arreaux. As Dale himself would say, "It's not a fault, it's a feature." But ever the optimist, Dale retrieved the remains, and commented, "No problem. It'll fly again." And it did, a little later, sans the payload section. (who needs the stinkin' payload section?) It flew great the second time around. In spite of all the kidding that he gets, it was great to see the prez there.

Courtney Sombers celebrated her birthday by flying her Sidewinder. Frank, enjoy it now. Won't be long until "hey Dad, can I borrow the car keys for my birthday?" is heard.

One of the neater flights of the day



Corey Kline waits in line with his Estes SR-X. (Beever)

was Lou Kopistecki's Estes F-14 Tomcat. It actually flew as advertised! Dave O'Neal and daughters flew Dad's vintage Estes Cherokee-D. It almost looked too nice to fly. Corey Kline got another great flight out of his Estes SR-X, but flight number two wasn't so good. Hope the damage can be fixed.

Another unique homebrew is Matt Zimmerman's CDR, which stands for CD Rocket. Matt used CDs for fins. I guess he didn't like the music. Anyway, Brian Royer announced the flight with "He's really gonna rock with this flight!". Good line. **CD**

Flight Log

| # | Flyer | Manufacturer | Model | Motors | Result |
|----|-------------------|----------------------|--------------|---------------------|-------------|
| 1 | Allan Bawell | Scratch | Red Rider | Aerotech RMS D15-7T | Good Flight |
| 2 | Allan Bawell | Estes | Shadow | Aerotech RMS E28-4T | Good Flight |
| 3 | Allan Bawell | Estes | Shadow | Aerotech RMS F12-3J | Good Flight |
| 4 | Allan Bawell | Scratch | Tomcat | Estes B6-4 | Good Flight |
| 5 | George Beever | North Coast Rocketry | Phantom 4000 | Aerotech G40-4W | No Chute |
| 6 | George Beever | MRC | Thermal Hawk | Estes B4-2 | 21.5 sec. |
| 7 | Mark Beever | Estes | Alpha III | Estes B6-4 | Good Flight |
| 8 | Andrew Buffenmyer | Estes | Maniac | Estes D12-5 | Good Flight |
| 9 | Guy DeStefano | Public Missles | Callisto | Aerotech RMS G64-7W | Good Flight |
| 10 | Guy DeStefano | Scratch | Centipede | Aerotech G40-7W | Good Flight |
| 11 | Guy DeStefano | Scratch | Juice | Aerotech G40-4W | Good Flight |
| 12 | Guy DeStefano | LOC/Precision | Legacy | Aerotech F50-6T | Good Flight |
| 13 | Guy DeStefano | Rocket R&D | Peacock | Aerotech RMS G33-7J | Good Flight |
| 14 | Guy DeStefano | Scratch | X-165 | Aerotech G40-4W | Good Flight |
| 15 | Dan Emanuel | Aerotech | Initiator | Aerotech RMS F40-4W | Good Flight |
| 16 | Daniel Feveryear | Estes | F-22 | Estes C6-3 | Good Flight |

| | | | | |
|----|-----------------|----------------------|------------------|---|
| 17 | Glenn Feveryear | Scratch | Astrobee 1500 | Aerotech F25-4W/Apogee B2-0 (2) Hmmm... |
| 18 | Glenn Feveryear | Scratch | Astrobee 1500 | Aerotech F25-4W/Apogee B2-0 (2) Good Flight |
| 19 | Adam Fleshman | Estes | Ninja | Estes A10-3 Good Flight |
| 20 | Adam Fleshman | Estes | Ninja | Estes A10-3 Good Flight |
| 21 | Adam Fleshman | Estes | SR-71 | Estes C6-3 Good Flight |
| 22 | Adam Fleshman | Estes | SR-71 | Estes C6-3 Good Flight |
| 23 | Adam Fleshman | Estes | SR-71 | Estes C6-3 Good Flight |
| 24 | Dale Greene | Aerotech | 1/2 Arreaux | Aerotech E15-4W Good Flight |
| 25 | Dale Greene | Aerotech | Arreaux | Aerotech E15-7W Prang |
| 26 | Dale Greene | QCR | Rotaroc | Estes C6-7 Good Flight |
| 27 | Joel Hildebrand | Estes | Sidewinder | Estes C6-5 Good Flight |
| 28 | Joel Hildebrand | Estes | Sidewinder | Estes C6-5 Good Flight |
| 29 | Corey Kline | Estes | Bailout | Estes C6-5 Good Flight |
| 30 | Corey Kline | Estes | SR-X | Estes C6-3 Good Flight |
| 31 | Corey Kline | Estes | SR-X | Estes C6-3 OUCH!!! |
| 32 | Corey Kline | Estes | Unknown | Estes A8-3 Good Flight |
| 33 | Corey Kline | Estes | Unknown | Estes A8-3 Good Flight |
| 34 | Jason Knier | Quest | HL-20 | Estes C6-0 Good Flight |
| 35 | Jason Knier | Quest | HL-20 | Estes C6-0 Prang |
| 36 | Jason Knier | Estes | Scorpion | Estes B6-4 Good Flight |
| 37 | Jason Knier | Scratch | Speedy | Estes A8-3 Good Flight |
| 38 | Jason Knier | Scratch | Speedy | Estes C6-5 Unstable |
| 39 | Lou Kopistecki | Estes | F-14 Tomcat | Estes C6-3 Great Flight |
| 40 | Lou Kopistecki | Estes | Gemini DC | Estes B6-2 Good Flight |
| 41 | Lou Kopistecki | Launch Pad | Hellfire | Estes D12-3 Good Flight |
| 42 | Lou Kopistecki | Estes | NASP | Estes B6-4 Good Flight |
| 43 | Lou Kopistecki | Seattle Rocket Works | Nike-Smoke | Estes 1/2A3-2 Good Flight |
| 44 | Lou Kopistecki | Quest | Pip Squeak | Estes A8-3 Good Flight |
| 45 | Lou Kopistecki | Quest | Space Clipper | Estes C6-5 Good Flight |
| 46 | Robbie Kurpiel | Estes | Hawkeye | Estes A10-3 Good Flight |
| 47 | Robbie Kurpiel | Estes | Tornado | Estes B6-6 Good Flight |
| 48 | Steve Machonis | Estes | Black Brant II | Estes D12-5 Good Flight |
| 49 | Steve Machonis | Estes | Black Brant II | Estes D12-5 Good Flight |
| 50 | Steve Machonis | Estes | Black Brant II | Estes D12-5 Separation |
| 51 | Steve Machonis | Estes | Sparrow | Estes A10-3 Good Flight |
| 52 | Curtis Martin | Estes | Tornado | Estes B6-6 Good Flight |
| 53 | Curtis Martin | Estes | Twister | Estes B6-4 Good Flight |
| 54 | Ed Miller | North Coast Rocketry | Eliminator | Aerotech F50-4T Good Flight |
| 55 | Ed Miller | Estes | Super Big Bertha | Flight Systems F100-6 Good Flight |
| 56 | Dave O'Neal | Estes | Cherokee-D | Estes D12-5 Good Flight |
| 57 | Melissa O'Neal | Estes | Astrocarn | Estes C6-7 Good Flight |
| 58 | Shannon O'Neal | Estes | Bailout | Estes B4-2 Good Flight |
| 59 | Chris Rhymer | Estes | Athena | Estes A8-3 Good Flight |
| 60 | Chris Rhymer | Estes | Athena | Estes A8-3 Good Flight |
| 61 | Tom Rhymer Jr. | Estes | Bandit | Estes B6-4 Good Flight |
| 62 | Tom Rhymer Jr. | Estes | Big Bertha | Estes B6-4 Good Flight |
| 63 | Tom Rhymer Jr. | Estes | Corkscrew | Estes C6-5 Good Flight |
| 64 | Tom Rhymer Jr. | Estes | Corkscrew | Estes C6-3 Good Flight |
| 65 | Tom Rhymer Sr. | Estes | Delta Clipper | Estes D12-0/D12-5 Good Flight |
| 66 | Tom Rhymer Sr. | Estes | Helicat | Estes C6-3 Good Flight |
| 67 | Tom Rhymer Sr. | Estes | Sidewinder | Estes C6-5 Good Flight |
| 68 | Tom Rhymer Sr. | Mountainside Hobbies | V-2 | Estes D12-3 Good Flight |
| 69 | Tom Rhymer Sr. | Mountainside Hobbies | V-2 | Aerotech E15-7W Unknown |
| 70 | Tom Rhymer Sr. | Estes | Wizard | Estes A8-3 Good Flight |

| | | | | | |
|----|------------------|----------------------|---------------|----------------------|-------------|
| 71 | Brian Royer | Estes | Big Bertha | Aerotech D21-7T | Separation |
| 72 | Brian Royer | Scratch | Green Machine | Aerotech RMS G64-10W | Separation |
| 73 | Brian Royer | Estes | Ninja | Estes A10-3 | Good Flight |
| 74 | Brian Royer | Scratch | The Mutt | Aerotech RMS G33-7J | Good Flight |
| 75 | Brinton Schlegel | Estes | Cobra | Estes A3-4 | Good Flight |
| 76 | Brinton Schlegel | Estes | Flash | Estes B6-2 | Good Flight |
| 77 | Brinton Schlegel | Estes | Helicat | Estes C6-5 | Good Flight |
| 78 | Brinton Schlegel | Estes | Maniac | Estes D12-5 | Good Flight |
| 79 | Jillane Schlegel | Estes | Alpha III | Estes B6-6 | Good Flight |
| 80 | Rob Schlegel | Estes | Cobra | Estes A3-4 | Lawn Dart |
| 81 | Courtney Sombers | Estes | Sidewinder | Estes C6-5 | Good Flight |
| 82 | Frank Sombers | Mountainside Hobbies | V-2 | Aerotech E30-7T | Good Flight |
| 83 | Ben Weaver | Mountainside Hobbies | ADR 4.0 | Aerotech RMS G64-4W | Good Flight |
| 84 | Ben Weaver | Estes | Big Bertha | Estes B6-4 | Good Flight |
| 85 | Ben Weaver | Estes | Big Bertha | Estes B6-4 | Good Flight |
| 86 | Ben Weaver | Estes | SR-71 | Estes C5-3 | Good Flight |
| 87 | Matt Weaver | Mountainside Hobbies | ADR 4.0 | Aerotech RMS G64-4W | Good Flight |
| 88 | Brandon Wolf | Estes | Yellow Jacket | Estes A8-3 | Good Flight |
| 89 | Brandon Wolf | Estes | Yellow Jacket | Estes C6-5 | Good Flight |
| 90 | Brandon Wolf | Estes | Yellow Jacket | Estes C6-5 | Good Flight |
| 91 | Brandon Wolf | Estes | Zinger | Estes A8-3 | Good Flight |
| 92 | Brandon Wolf | Estes | Zinger | Estes B6-6 | Good Flight |
| 93 | Matt Zimmerman | Scratch | CDR | Estes C6-0 | Separation |
| 94 | Matt Zimmerman | Scratch | CDR | Estes C6-0 | Good Flight |
| 95 | Matt Zimmerman | AAA Model Aviation | PA Crude | Aerotech G80-7T | Good Flight |

Launch Statistics

Number of Flyers: 34 Weather: Mid-40s, Nice then Nasty

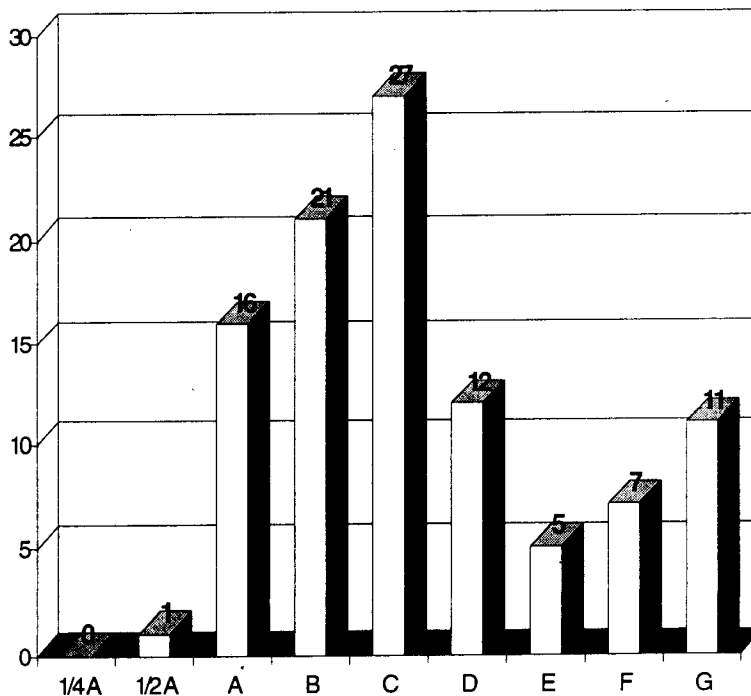
Models Flown:

| | |
|----------------------|----|
| Estes | 43 |
| Scratchbuilt | 10 |
| Mountainside Hobbies | 3 |
| Quest | 3 |
| Aerotech | 2 |
| North Coast Rocketry | 2 |
| AAA Model Aviation | 1 |
| Launch Pad | 1 |
| LOC/Precision | 1 |
| MRC | 1 |
| Public Missles | 1 |
| QCR | 1 |
| Rocket R&D | 1 |
| Seattle Rocket Works | 1 |

Motor Usage:

| | |
|---------------------|----|
| Estes | 71 |
| Aerotech Single Use | 14 |
| Aerotech RMS | 10 |
| Apogee | 4 |
| Flight Systems | 1 |

Impulse Distribution:



Construction

B.A.R.-1

by Brian Royer

Editor's note: Most of us know what a BAR is, right? Of course it stands for Born Again Rocketeer, meant to identify people who were introduced to the hobby at a younger age, say 12 to 15, and subsequently, ran afoul of those pitfalls that somehow seem to affect most of our lives: college, girlfriends, wives, children, careers, real lives. And sooner or later, when and if we survive into our thirties with just about half of our sanity, we wander into a hobby shop, or see a rocketry magazine, or find some of our old rocket stuff in the attic or basement, the fire is reignited, the smell of burnt black powder motors comes back to our senses like a waft of sulphur fumes from our past, and we're hooked again. And so, we come up all sorts of neat sounding excuses as reasons for screwing up that neat family budget, like, "but honey, it's something that little Cosmo and I can do together!", or "look, the money that I'll save by a) not playing golf, b) not betting at the track, c) cutting back on beer, or d) cutting back on groceries will be the only money I spend on rockets!" Sound familiar? So, of course, it stands to reason that Brian Royer's sport plan, the B.A.R.-1, is a tribute to those of us who fit into the above, right? Nah, of course not! In this case, BAR stands for, well, ask Brian for yourself. However, if you are a BAR, the B.A.R.-1 would be a good project for your

first scratchbuilt large model rocket.

Motor Mount Assembly:

1. With sandpaper, scuff up an area about 2" from one end of the 12" motor mount tube. Epoxy one centering ring 2" from the end.
2. Drill a 3/16" hole in the centering ring, about halfway between the motor mount tube and the outside edge of the ring.
3. Take 30" cable and make a 1" loop in one end and secure with clamp.
4. Secure the other end of the cable to the centering ring by wrapping it around the #10 screw, then insert the screw into 3/16" hole in centering ring. Apply epoxy to head of screw. Thread nut on the other end of the screw, secure with epoxy. *Optional: use a large screw eye, and tie end of cable to screw eye.*
5. Attach quick link to loop in cable. Attach one end of 1/2" shock cord.
6. Epoxy the other centering ring onto aft end of motor mount tube, about 1" from the end.
7. Apply a thick bead of epoxy into 4" diameter body tube, about 10" from aft end. Slide motor mount in until the motor tube is even with body tube.

Fin Assembly:

1. Cut fins from 5 ply 1/8" plywood to measurement specs. Sand all edges smooth, except for the root edge.

Sand flat.

2. Mark the body tube for three fins, 120 degrees apart. Measure 1/4" on each side of the fin placement lines. Drill eight 1/8" holes about 3/4" apart through the body tube.
3. Epoxy the fins to the fin placement lines.
4. When the epoxy has cured, place strips of masking tape about 3/8" away from the root edge, parallel to the fins, and 1/16" away from the holes. Apply a thick bead of epoxy along the fins. Smooth with finger to create a fillet. Remove tape strips.

Nose Cone and Launch Lug:

1. Draw a line the length of the body tube, between two of the fins.
2. Epoxy the launch lug with the bottom 12" from the aft end of the body tube.
3. Take shock cord and tie loose end to a 3/16" quick link. Attach quick link to nose cone.

Prep and Paint:

1. Sand entire surface with 400 grit emery cloth.
2. Prime and paint with your favorite brand.

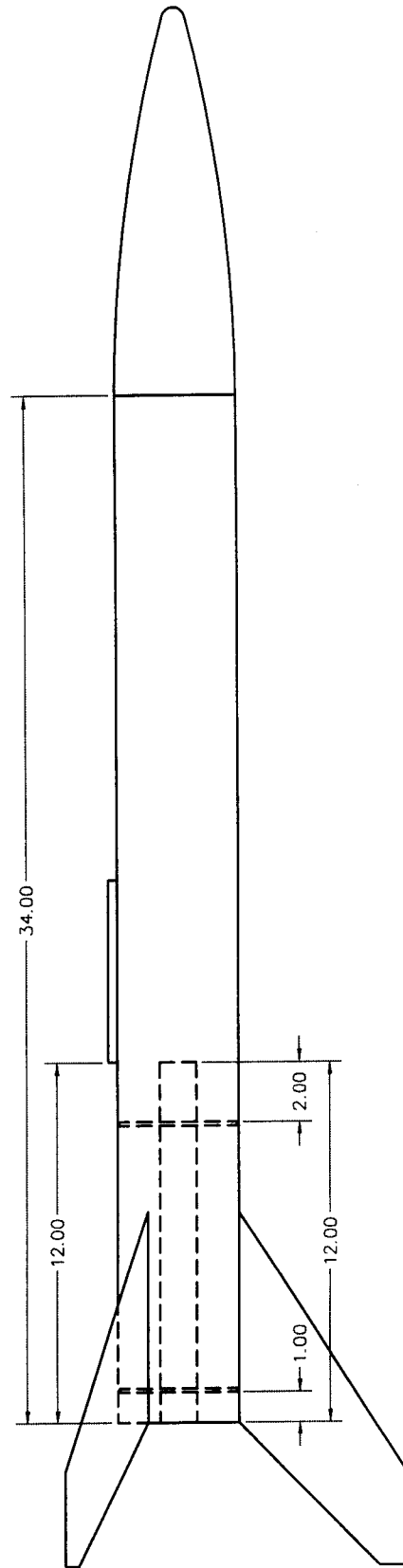
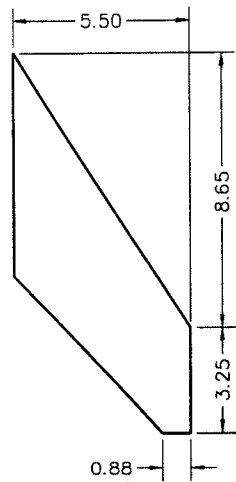
Recommended Motors:

Aerotech RMS: F40-4, G64-4
Aerotech Single Use: F25-4, F50-4, G40-4, G80-4

Parts List

| Quantity | Description | Source |
|----------|---|----------------|
| 1 | Nose Cone, 4" diameter | LOC |
| 1 | 4" x 34" body tube | LOC |
| 3 | 1/8" 5-ply plywood fins | Hobby shop |
| 2 | 29mm centering rings | LOC |
| 1 | 29mm x 12" motor mount tube | LOC |
| 1 | 1/4" x 6" launch lug | LOC |
| 1 | 30" length of 1/16" steel cable | Hardware store |
| 1 | 1/16" cable clamp | Hardware store |
| 2 | 3/16" quick links | Hardware store |
| 1 | 30" or 36" nylon chute | LOC |
| 1 | 10' x 1/2" elastic shock cord | LOC |
| 1 | #10 x 1-1/2" threaded screw, washer & nut | Hardware store |

B.A.R.—1

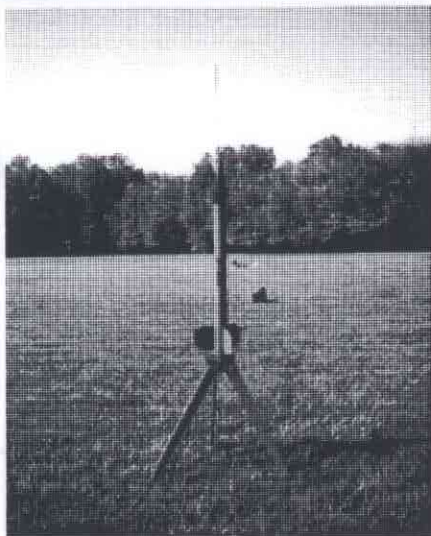


Mailing Tube Rockets

by Guy DeStefano

When I first became interested in high power rocketry, about a year and a half ago, I visualized an addictive hobby in the making. So, instead of dropping forty or so dollars on a rocket kit, I wanted to try and make one myself; a scratchbuilt. Well, it's not an easy task finding materials that will hold up to the G-forces of rocket flight.

I pondered and pondered and decided to cruise out to Staples, you know, the all purpose office supply store. The first aisle I strolled down was the corrugated cardboard section. The shelves were loaded with these three foot long by three inch diameter tubes. Estes had better reconsider their body tube materials! These tubes are strong and perfect for your first scratchbuilt rocket. They cost \$1.99, very reasonable for any rocketeer's budget.



The Eider before launching on an Aerotech F50. (DeStefano)

My first mailing tube rocket was going to be made for F and G motors! Before I started, I wrote to Mark Johnson, who is the editor of the newsletter offered to

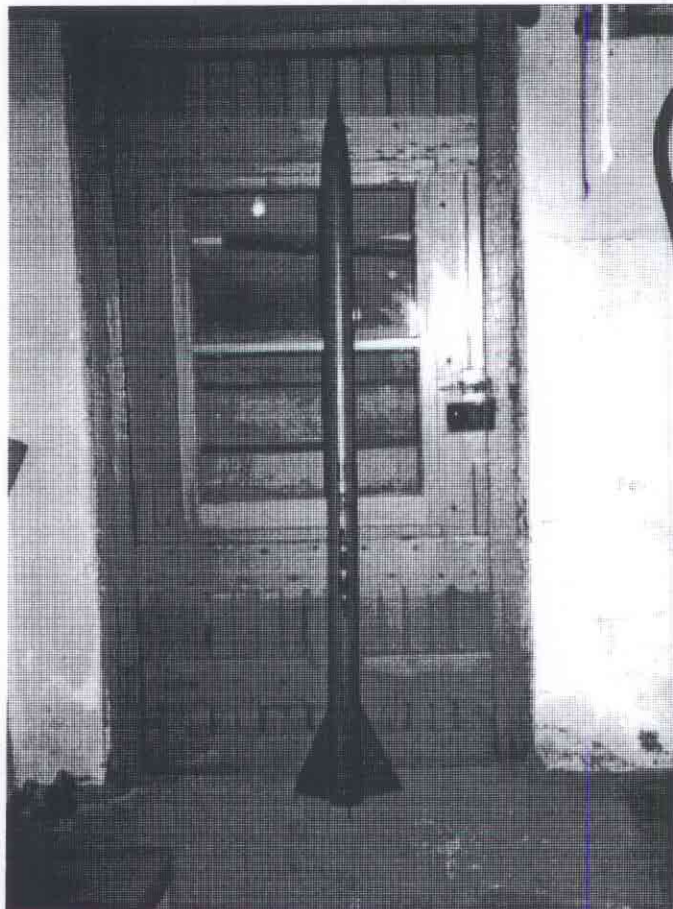
NAR members. I asked him if this idea would be criticized and shot down at major sport launches. Low and behold, he praised me and has seen mailing tube rockets sustain flights up to and including G motors! I wish I still had that letter.

I built the rocket with a Staples mailing tube, Mountainside Hobbies centering rings and engine mount, Countdown Hobbies 3 inch nosecone, and your basic plywood, shock cord and epoxy. The rocket cost me \$15! I asked George Fetter at Mountainside Hobbies to calculate the altitude for an F50 motor, which was the best for this rocket. One thousand feet! The rocket was 18 ounces without motor. Your weight will obviously vary with the amount of epoxy you use!

The confidence level inside me reached powerful limits and now the arsenal of rockets in my basement will prove my addiction! I love model rocketry. It's a sport of knowledge and creativity, so enjoy it and do it safe. **CD**



Guy's first three high power rockets, Spirogyra, Eider, and Osprey all made from mailing tubes. (DeStefano)



U.S. Army rocket named SAM for Surface to Air Missile. This one is approximately 6-1/2 feet tall. (DeStefano)

RAMTEC-5

(Regional Aerospace Meet to Encourage Competition)
NAR Sanction No. 1011-97R

Host: SPAAR #503 - Southern Pennsylvania Area Association of Rocketry.
Dates: Saturday, June 14 and Sunday, June 15, 1997
Location: Allentown College in Center Valley, PA
Events: 1/2A Streamer Duration, A Rocket Glider, A Super Roc Duration, A Payload Altitude, D Helicopter Duration
Awards: Trophies for 1st place in each event (divisions A, B, C and Team) and certificates for 2nd thru 4th place.

The range will be open Saturday from 9AM to 6PM and Sunday from 9AM to 2PM. Events may be flown either day with the exception of A Payload Altitude, which must be flown on Saturday. NAR standard payloads will be provided. They will be made of BT-20 tube, 2.75 long. You may bring your own payload but they will have to be weighed before flight. The range is open for sport flying all day, both days.

All contestants must present, on request, their current NAR card as proof of membership. Models will only be launched at the contest range by the designated launch officer. Sport flights are welcome, but will be subject to flight clearance by the Range Safety Officer and/or Launch Control Officer. Insurance is not required to fly or compete. We will not have a special waiver this year. However, we will make notification to the proper authorities to fly up to the NAR safety code limits. Allentown College may not be suitable for some high performance models, so use your discretion.

The attached application should be completed and returned as soon as possible with payment in full, **deadline is May 30, 1997, if you will be using on campus housing.** I need to notify the College, 14 days, in advance of the minimum number of persons needing rooms. The signature of a parent or guardian is required on the medical release, below, and a separate CB-1-70 (NAR registration form) for applicants under 18. Any under age contestant that does not submit a CB-1-70 with parental signature on the day of the meet will not be allowed to fly. Observers are welcome. They should fill out an application for room reservations. No other fee is required for observers.

The team fee covers all team members and only needs paid once. Each team member must fill out a separate application. Please remember to indicate your team name and number on your application.

Housing is available in the college dormitories for all who attend RAMTEC whether flying or not. The dorms are located adjacent to the range. **Bring your own sheets, pillows, blankets and towels.** Please indicate your housing requirements and rooming preferences on the application. The rest of the arrangements will be made for you. College food services will not be available, but there are numerous establishments in the area.

----- Detach and Return -----

Application for RAMTEC-5 (Please print clearly)

NAME _____ NAR # _____ ROOM CHARGE \$ _____

ADDRESS _____ INDIVIDUAL FEE:

CITY _____ STATE _____ ZIP _____ Division A, B: (\$10) \$ _____

TEAM NAME _____ TEAM # _____ *or* Division C: (\$15) \$ _____

AGE _____ PHONE NO. _____ *or* Division T: (\$18) \$ _____

Room reservation: _____ Fri _____ Sat *or* Sport Flying: (\$5) \$ _____

_____ SINGLE Occupancy (\$20.50 per night)

_____ DOUBLE Occupancy (\$15.50 per person per night) TOTAL ENCLOSED: \$ _____

ROOMMATE PREFERENCE _____

MAIL APPLICATION WITH PAYMENT, PAYABLE TO: Glenn Feveryear, RD 1 Box 1-C, Delta, PA 17314
Questions?, call: 717-456-5570

Medical release: I (undersigned), a parent/guardian of _____, a minor, in the event of injury or illness occurring to him/her during his/her stay at Allentown College, Center Valley, PA do hereby consent to whatever emergency medical treatment is considered necessary by responsible medical personnel and will assume financial responsibility for any treatment.

Signed: _____ Name: _____

Phone: _____

COUNTDOWN

SPAAR

PO Box 127

Reamstown, PA. 17567

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

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