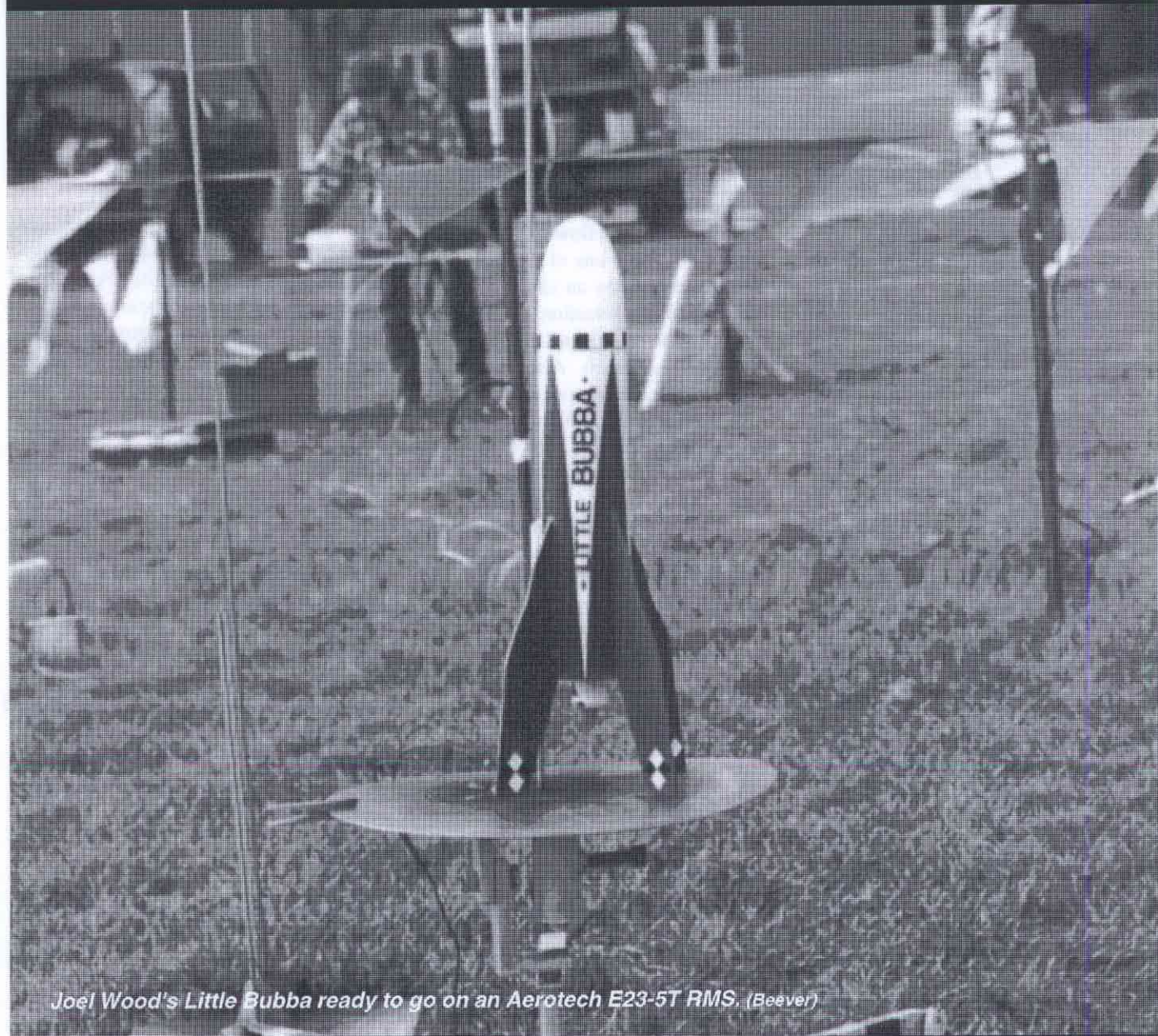


COUNTDOWN

Official Newsletter of SPAAR

THE SOUTHERN PENNSYLVANIA AREA ASSOCIATION OF ROCKETRY



Joel Wood's Little Bubba ready to go on an Aerotech E23-5T RMS. (Beever)

Special 1996 Almanac Issue!

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COUNTDOWN

Volume 10, Issue 1
January/February 1997

President

Dale Greene

Vice President

Roger Dwyer

Secretary-Treasurer

George Beaver

Section Advisor

Glenn Feveryear

Member at Large

Mark Kamide

Tripoli Prefect

Ed Miller

Newsletter Staff

George Beaver, Randy Brust
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
PO Box 127
Reamstown, PA. 17567



The Editors' Corner

There may have been a raised eyebrow or two after SPAAR's recent decision to limit the use of G class motors at sport launches to those 18 years of age or older. As with most issues, there are two sides, and I for one can see both. But let's remember what the underlying theme of all of this is, safety. Mine, yours, the flyer's, and everyone else's. Let's also understand that there is an implication here that some may have missed, adult supervision. SPAAR does have a number of members under the age of 18 who appear to be very knowledgeable about the hobby and have flown higher impulse motors. Suppose one of these members were supervised by an adult member of the club in the selection of the proper motor for the model, and the prepping of the model for launch. Also, suppose the adult member accompanied him/her to safety check-in, and supervised the preflight pad activities? If I were serving as RSO/LCO, I wouldn't have a problem with clearing the model for launch.

After the G motor decision appeared in the September/October issue, we received a very interesting letter from member Guy Destefano. He wrote, in part "...There's one article that caught my eye... The safety column regarding new rocketeers jumping right into high power and the 'non-buying power' of G motors for people under 18 years of age. I am so in favor of this. Safety, I believe, is so underrated. SPAAR does have an excellent record and I hope it stays like this. Being a chemist, I don't think many rocketeers understand what ammonium perchlorate

is. Well, it's the main component of Aerotech motors, but what about physical properties? If people think that safety is no big deal and that ammonium perchlorate is harmless, well let them come to me and I'll let them know different. I feel that we have a secure feeling for the high power users in our club. The motors we use, E, F, G or any Estes motors, are all used in the correct manner. That's why I keep coming back to fly. The people know what they're dealing with, they're pleasant, and we're safe!"

George

Just a quick note to make sure everyone sees the announcement below for SPAAR's new web site. For those of you who have access to the internet, check it out! The site was constructed, and is being maintained, by Glenn Feveryear. I think he's done a great job creating something that we can all be proud of.

Also, a reminder for all you photographers out there. The Countdown is always in need of good quality pictures from our monthly launches. In particular, good takeoff shots for the cover. Yeah, I know, they're hard to get! You'll notice that I couldn't find an in-flight pic for this issue's cover. That's why we need more people taking more pictures. So bring your cameras out to the launch and snap away. And remember, all photos will be returned to the owner unharmed after scanning. If anyone has any questions regarding photos for the Countdown, give me a call at 610-282-1217.

Randy

Announcing.....

the SPAAR Home Page

on the World Wide Web

Launch Schedules
Rocketry Links

Meeting Schedules
Space Related Links

Club Information
Regional & National Events

The SPAAR web site URL is

<http://www.cyberia.com/pages/feveryear/index.htm>

Section News Notes

by George Beever

As part of our annual *Almanac Issue*, you'll find a membership roster, motor certification list, club bylaws, 1996 stats, club records, and all kinds of other good stuff elsewhere within these pages. A belated welcome to all of our new members who joined us in '96!

Meetings/Workshops:

Don't forget, during the months of January, February and March, our monthly meetings are combined with a workshop on Saturday mornings from 9AM to 1PM. The dates are listed under Upcoming Events. Bring your current project to work on, and swap tips, hints, and rocket lies with other members. The APRIA Health Care Community Room is located at 240 Harrisburg Ave., Lancaster, next to Lombardo's Restaurant. For directions, call George Beever at 717-733-4170.

Club Officers for 1997:

As the result of December's elections, the club officers for 1997 are - President: Dale Greene, Vice-President: Roger Dwyer, Secretary/Treasurer: George Beever, Member-at-Large: Mark Kamide, Section Advisor: Glenn Feveryear, and Tripoli Prefect: Ed Miller.

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

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:

Saturday, February 22, 1997 - SPAAR Monthly Meeting and Winter Workshop, APRIA Community Room, 9AM to 1PM.

Sunday, March 9, 1997 - SPAAR Sport Launch, 1PM to 5PM at Cocalico High School.

Saturday, March 22, 1997 - SPAAR Monthly Meeting and Winter Workshop, APRIA Community Room, 9AM to 1PM.

Saturday, March 22 - Sunday, March 23, 1997 - Open meet hosted by GSSS, New Jersey. **CD**

Section Meeting Minutes

by George Beever

December 20, 1996

Present: D. Weinhold, D. Greene, B. Royer, R. Dwyer, R. Hackman, Gary Feveryear, Glenn Feveryear, R. Feveryear, D. Feveryear, G. Beever.

Committee Reports:

Section Advisor: Glenn Feveryear reported on an Aerotech product recall notice (see Manufacturers' News). BATF/"Easy

Access" issues were also discussed.

Treasurer: Gary Feveryear provided the following report. Previous balance: \$747.38. Expenditures: \$2.55 for copy services. Income: \$5 in dues. Current balance, \$749.83, with 89 members.

HPR: Roger Dwyer stated that Ed Miller, Prefect, has begun checking on the FAA waiver for the Chester County site.

Competition: No report.

Newsletter: George Beever distributed copies of the November/December issue of the Countdown. With this issue, we are

back on schedule.

Old Business: Glenn Feveryear reported that he has received word from Vaughn Brothers Rocketry regarding our purchase of a custom HPR launch system. It appears that VBR plans to release a stock, or off-the-shelf, launch system almost identical to the one that we specified in November. This system will also cost a little less than the customized one. VBR expects to make this system available by mid-January, and recommends that we wait until then to place an order. After discussion, those present favored waiting for the release of the new VBR launch system.

Glenn also advised that Mark Kamide from Mountainside Hobbies expects to order some Impulse Aerospace Quad-Pod launch pads in the near future. Is the club interested? Discussion followed regarding the need for launch pads since all of the heavy-duty pads that the club uses are privately owned, not club owned. It was decided to proceed with the purchase of the launch system from VBR first, and then take Mark up on his offer if it is still available.

New Business: Glenn Feveryear reported that he has nearly completed the new membership application. It will include a signature line, as well as the model rocket and high power safety codes. Upon completion, he will send it to George Beaver for copying.

Also, Glenn made a motion, seconded by Dale Greene, to amend ARTICLE 3, MEMBERSHIP, of the club's bylaws to read, "... who express a desire to join, pledge to follow the NAR Model Rocket

and High Power Safety Code, and the Tripoli Rocketry Association High Power Safety Code..." (amendment is italicized). The following action was taken. As required by ARTICLE 10, AMENDMENTS, this will constitute written notice of a pending amendment. The issue will be voted at the February 22nd meeting.

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

Industry News

by George Beaver

Aerotech: In an information release dated 10/1/96, Aerotech's Ed LaCroix advised consumers of "an elevated rate of nozzle failure where use of the following four RMS high power Black Jack reload kits are concerned: 29mm G75J / 29mm H97J / 38mm H73J / 38mm H112J." As of 8/1/96, Aerotech redesigned it's 29mm RMS molded nozzle for greater strength. Flyers are asked to inventory their reload kits for old style nozzles (the nozzle has straight

sides) and return them to Aerotech. If you have any questions, contact Ed via e-mail at 71441.1111@compuserve.com, or by calling 602-780-2946, weekdays from 8-5PM PST.

Totally Tubular: Al de La Iglesia and Jim Fackert of the HUVARS Section in Michigan have gone into the Body Tube Business. The tubes range in diameter from 0.246" (similar to the Apogee 10.5mm micro motors), up to 0.976" (Estes BT-50 size). The tubes come in 34" lengths. Centering rings are also available. For

more information contact Al via e-mail at aiglesia@scnc.kiz.mi.us, or at 112 Cranbrook Drive, Howell, MI 48843, phone number 517-546-4874.

Mountainside Hobbies: Mountainside now stocks the Boyce Aerospace Microscale line of kits. These little buggers are hot! Mountainside also now carries kits from the Seattle Rocket Works, as well as the Transolve P-2 Altimeter. Also expected soon are Estes' new offerings for 1997. For more information contact them at 717-733-4140. **CD**

SPAAR Sport Launch

November 29, 1996

by George Beaver

What better way to work off a big turkey dinner than to fly rockets the day after? Okay, it's a reach. And besides, who needs an excuse to fly rockets? Married guys whose long-suffering wives expect them to help decorate the house for Christmas, that's who!

Dave O'Neal and his daughter Shannon drove up from nearby Chester County, and were there early. They flew a couple of Dave's classics from yesteryear, namely the ASP-1 from MPC and a Cox 1/100 scale Little Joe II. We know for certain that the Little Joe dates from the early 70's, because when Cox re-released their model rocketry line a couple of years ago, the Little Joe II was not among it. Unfortunately, Dave suffered a cato on the Estes

A8-3 he was using, damaging the model. The good news is, about four hours later Roger Dwyer found one of the missing fins, but Dave had already left. Don't worry Dave, we'll hold on to it for you.

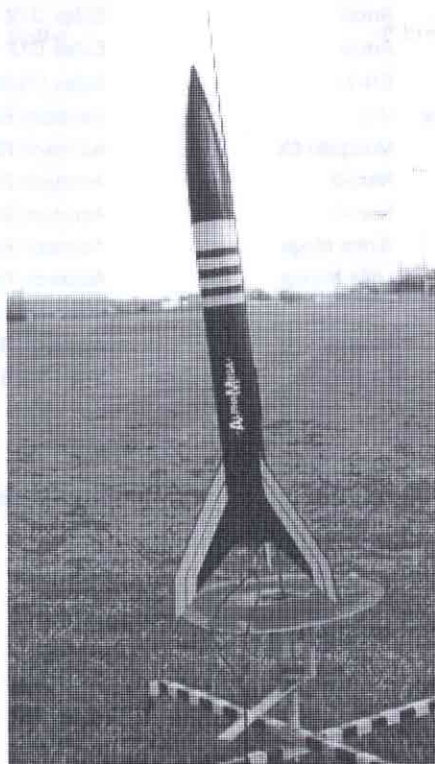
Joel and Hollis Wood flew a number of their scratchbuilt designs. They were the "Violator", the "Alpha Mega", "Little Bubba", and one that Hollis calls "Nard-X". They not only have colorful names, but the paint schemes are colorful too. Like we've said before, if anyone wants to see some neat paint jobs, check out Joel and Hollis' work. Fantastic!

Frank Sombers brought out his unique, scratch built twin engine SR-71 Blackbird for another great flight. Frank mentioned that he is toying with the idea of up-scaling the design. Stay tuned.

Glenn Feveryear made the maiden flight of his North Coast Lance Beta, on an Aerotech F25. Glenn won this kit at NARAM-35 in 1993. (You're starting to

sound like me, Glenn... models must age properly for a few years until you can get around to building and flying them). It was a very nice flight, too.

For sheer "ooohs & aahhs", there was Roger Dwyer's Loc Onyx powered by a Rocket Flite F104-5 Silver Streak motor. It was a great flight that caught everyone's attention. Gee, the last time I flew one of those, it ended up as a poster child for bulkhead failures... **CD**



Joel Wood's scratch built Alpha Mega loaded with an Aerotech F52-5T RMS. (Beever)

Flight Log

#	Flyer	Manufacturer	Model	Motors	Result
1	George Beever	Estes	Big Bertha	Estes C6-5	Good Flight
2	George Beever	Estes	D-Region Tomahawk	Estes D12-5	Good Flight
3	George Beever	QCR	D Del	Estes D12-3	1/2 Splat!
4	George Beever	Estes	Firehawk	Estes C6-3	No Chute
5	George Beever	LOC/Precision	Lil' Nuke	Aerotech RMS E16-7W	Corn Dart
6	George Beever	Scratch	Maxi Alpha	Aerotech RMS E11-5J	Good Flight
7	George Beever	Aerotech	Strong Arm	Aerotech G80-7T	Good Flight
8	Roger Dwyer	LOC/Precision	Onyx	Rocketflite F104-5SS	Good Flight
9	Roger Dwyer	Scratch	UFO	Estes D12-0	Good Flight
10	Glenn Feveryear	Aerotech	Arreux	Aerotech E15-4W	Good Flight
11	Glenn Feveryear	Scratch	Grumpy Dog	Estes D12-0/D12-3	Good Flight
12	Glenn Feveryear	North Coast Rocketry	Lance Beta	Aerotech F25-4W	Good Flight
13	Glenn Feveryear	LOC/Precision	Onyx	Aerotech E15-4W	Good Flight
14	Robert Kurpiel	Estes	Thunderhawk	Estes B6-4	Separation
15	Robert Kurpiel	Estes	Thunderhawk	Estes C6-5	Good Flight
16	Robert Kurpiel	Estes	Thunderhawk	Estes C6-5	Good Flight
17	Dennis Lorah	Estes	Big Bertha	Estes C6-5	Good Flight
18	Marie Lorah	Estes	Mean Machine	Estes D12-5	Good Flight
19	Paul Lorah	Estes	Big Bertha	Estes C6-5	Good Flight
20	Paul Lorah	Estes	Mean Machine	Aerotech E15-4W	Good Flight
21	Dave O'Neal	Cox	Little Joe II	Estes A8-3	CATO
22	Shannon O'Neal	MPC	Asp-1	Estes A3-4	Good Flight
23	Shannon O'Neal	Estes	Stinger	Estes A8-3	Good Flight
24	Courtney Sombers	Estes	Sidewinder	Estes C6-5	Good Flight
25	Courtney Sombers	Estes	Sidewinder	Estes C6-5	Good Flight

26	Frank Sombers	Scratch	Arrow	Estes D12-7	Good Flight
27	Frank Sombers	Scratch	Arrow	Estes D12-7	Good Flight
28	Frank Sombers	Scratch	SR-71	Estes C6-5(2)	Good Flight
29	Frank Sombers	Mountainside Hobbies	V-2	Aerotech E30-7T	Good Flight
30	Hollis Wood	Scratch	Mosquito 6X	Aerotech RMS E28-4T	Good Flight
31	Hollis Wood	Scratch	Nard-X	Aerotech RMS E28-4T	Good Flight
32	Hollis Wood	Scratch	Nard-X	Aerotech RMS E28-4T	Good Flight
33	Joel Wood	Scratch	Alpha Mega	Aerotech RMS F52-5T	Good Flight
34	Joel Wood	Scratch	Little Bubba	Aerotech RMS E23-5T	Good Flight
35	Joel Wood	Mountainside Hobbies	V-2	Estes D12-3	Good Flight
36	Joel Wood	Scratch	Violator	Aerotech RMS G64-4W	Good Flight
37	John Yost	Estes	Cato	Estes B6-0	Good Flight

Launch Statistics

Number of flyers: 14

Weather: Cold, Overcast

Models Flown:

Scratchbuilt	10
Estes	9
LOC/Precision	3
Aerotech	2
Mountainside Hobbies	2
Cox	1
MPC	1
North Coast Rocketry	1
QCR	1

Motor Usage:

Estes	24
Aerotech RMS	8
Aerotech Single Use	6
Rocketflite	1

Impulse Distribution:

1/4 A	0
1/2 A	0
A	3
B	2
C	10
D	9
E	10
F	3
G	2

SPAAR Sport Launch

December 15, 1996

by George Beever

SPAAR closed out its 1996 flying season on December 15, and even though the weather looked "iffy" all day, 40 flights were made.

Stephen Knight brought some members of his church group from Camp Hill, most for their first taste of model rocketry. It was very easy to tell that these guys had a blast! We hope that Cody, Charles, Andrew, John, Leo, and Stewart stick with it. Maybe we'll see them again.

George Fetter from Mountainside Hobbies had received a P-2 Altimeter from John Fleischer of Transolve as a demo. George flew it in his Aerotech Astrobee-D powered by an Aerotech G64-7 reload. The altimeter registered an altitude of just over 700', a bit lower than

George had expected. George also flew his prototype "Bell X-1" on Aerotech E15's. It flew great both times.

Randy Brust flew his scratch built "Dart 24" and his Aerotech Initiator. Randy uses fiberglass to strengthen his body tubes, which also results in some beautiful finishes. As with Ed Miller's and Joel Woods' models, you must see them to appreciate them.

George Fetter closed out the flying with his Loc Aura. After suffering a cato with an Aerotech F50 (which apparently did not harm the model), he loaded it up with a G40-10 White Lightening Motor. Now, the Aura is a small model to begin with. The F50 would have given it a ride, but the G40 took it out of sight! Much to everyone's surprise, the Aura was spotted, descending under its streamer, not too terribly far from the pad. Nice flight, George!

CD

Flight Log

#	Flyer	Manufacturer	Model	Motors	Result
31	Randy Brust	Scratch	Dart 24	Aerotech E15-7W	Good Flight
32	Randy Brust	Scratch	Dart 24	Aerotech E15-4W	Good Flight
33	Randy Brust	Aerotech	Initiator	Aerotech F25-6W	Good Flight
10	John Davis	Estes	Big Bertha	Estes 1/2A6-2	Good Flight
11	John Davis	Estes	Big Bertha	Estes C6-5	Good Flight
12	John Davis	Estes	Big Bertha	Estes B6-4	Good Flight
5	Charles Diaz	Estes	Bailout	Estes B4-6	Good Flight
6	Charles Diaz	Estes	Bailout	Estes B6-4	Good Flight
7	Charles Diaz	Estes	Wizard	Estes B4-4	Good Flight
13	Leo Dorsey	Estes	Bullpup 12D	Estes C6-5	Good Flight
14	Leo Dorsey	Estes	Bullpup 12D	Estes C6-5	Separation
15	Leo Dorsey	Estes	Bullpup 12D	Estes B6-4	Separation
16	Leo Dorsey	Estes	Bullpup 12D	Estes B6-4	Good Flight
17	Leo Dorsey	Estes	Bullpup 12D	Estes B6-2	Good Flight
23	Roger Dwyer	LOC/Precision	Onyx	Aerotech RMS G33-5J	Good Flight
34	George Fetter	Scratch	Astrobee-C	Aerotech F25-4W	Good Flight
37	George Fetter	Aerotech	Astrobee-D	Aerotech RMS G64-7W	Good Flight
39	George Fetter	LOC/Precision	Aura	Aerotech F50-9T	CATO
40	George Fetter	LOC/Precision	Aura	Aerotech G40-10W	Good Flight
35	George Fetter	Scratch	Bell X-1	Aerotech E15-4W	Good Flight
36	George Fetter	Scratch	Bell X-1	Aerotech E15-4W	Good Flight
38	George Fetter	LOC/Precision	LOC IV	Aerotech G80-7T	Good Flight
24	Rick Hackman	Scratch	Mity Midget I	Estes 1/2A3-2	Good Flight
25	Rick Hackman	Scratch	Mity Midget II	Estes 1/2A3-2(2)	Rocket Lok!
26	Rick Hackman	Scratch	Redstone	Estes C6-3	Good Flight
27	Rick Hackman	Scratch	Space Probe	Estes C6-7	CATO
22	Stephen Knight	Scratch	Backwards	Estes C6-3	Good Flight
21	Stephen Knight	Scratch	Rainbow	Estes D12-3	Good Flight
4	Cody Lewis	Estes	Bandit	Estes C6-3	Good Flight
1	Cody Lewis	Estes	Wizard	Estes B6-4	Good Flight
2	Cody Lewis	Estes	Wizard	Estes C6-3	Good Flight
3	Cody Lewis	Estes	Wizard	Estes C6-5	Good Flight
29	Ed Miller	North Coast Rocketry	Eliminator	Aerotech F50-4T	Good Flight
28	Ed Miller	Scratch	La Bomba	Aerotech G125-5T	Separation
30	Ed Miller	Mountainside Hobbies	V-2 2.6"	Aerotech RMS D13-4W	Good Flight
8	Andrew Ramell	Estes	Firestreak	Estes A8-3	Good Flight
9	Andrew Ramell	Estes	Firestreak	Estes B6-4	Good Flight
18	Stewart Sample	Estes	Wizard	Estes C6-3	Good Flight
19	Stewart Sample	Estes	Wizard	Estes C6-3	Good Flight
20	Stewart Sample	Estes	Wizard	Estes B6-4	Good Flight

Launch Statistics

Number of flyers:	12	Weather:	Cold, Windy, Damp	
Models Flown:		Motor Usage:	Impulse Distribution:	
Scratchbuilt	10	Estes	27	1/4 A 0
Estes	8	Aerotech Single Use	11	1/2 A 4
LOC/Precision	3	Aerotech RMS	3	A 1
Aerotech	2			B 10
Mountainside Hobbies	1			C 11
North Coast Rocketry	1			D 2
				E 4
				F 4
				G 5

**SPAAR Membership
Roster**
by Randy Brust

Presented below is the SPAAR membership roster as of January 31, 1997. Keep in mind that this list does not reflect possible changes from individuals who

may not renew their membership. If you notice any errors in the information shown, please contact Randy Brust so that the roster can be updated accordingly. **CD**

<u>Name</u>	<u>Address</u>	<u>Phone#</u>
Jeffery Aughey	150 Speedwell Forge Rd., Lititz, PA 17543	(717)626-1139
John Balmer	34 Birch Ave., Mt. Gretan, PA 17064	(717)964-3820
Christopher Balogh	1200 Ash Lane, Lebanon, PA 17042	(717)273-7320
Karla Balogh	1200 Ash Lane, Lebanon, PA 17042	(717)273-7320
Laurel Balogh	1200 Ash Lane, Lebanon, PA 17042	(717)273-7320
Robert Balogh	1200 Ash Lane, Lebanon, PA 17042	(717)273-7320
Justin Baylor	529 Raymond Avenue, Hamburg, PA 19526	(610)562-2900
Mathew Baylor	529 Raymond Avenue, Hamburg, PA 19526	(610)562-2900
Erin Beever	231 Weidmansville Rd., Ephrata, PA 17522	(717)733-4170
George Beever	231 Weidmansville Rd., Ephrata, PA 17522	(717)733-4170
Mark Beever	231 Weidmansville Rd., Ephrata, PA 17522	(717)733-4170
Teresa Beever	231 Weidmansville Rd., Ephrata, PA 17522	(717)733-4170
LeRoy Bonawitz	115.5 Holstein St., Bridgeport, PA 19405	(610)279-7482
Randall Brust	6205 Domarray St., Coopersburg, PA 18036	(610)282-1217
Nicolas Colesanti	2445 Black River Road Apt. 9, Bethlehem, PA 18015	(610)867-7757
Lewis Coover	60 E. Franklin St., Ephrata, PA 17522	(717)738-4573
Gaetano Destefano	499 Farmington Ave., Pottstown, PA 19464	(610)323-1560
Shane Douglas-Snyder	1999 Mine Rd., Paradise, PA 17562	(717)786-8976
Roger Dwyer	6074 Goshen Rd., Newtown Square, PA 19073	(610)353-3919
Don Ewing	169 Hurst Dr., Ephrata, PA 17522	(717)738-0403
George Fetter	195 Musser Rd., Est Earl, PA 17519	(717)354-4785
Daniel Feveryear	R.D. #1 Box 1-C, Delta, PA 17314	(717)456-5570
Gary Feveryear	93 Gemmill Rd, Delta, PA 17314	(717)456-5386
Glenn Feveryear	R.D. #1 Box 1-C, Delta, PA 17314	(717)456-5570
Renee Feveryear	R.D. #1 Box 1-C, Delta, PA 17314	(717)456-5570
Rita Feveryear	R.D. #1 Box 1-C, Delta, PA 17314	(717)456-5570
Robert Fuld	60 Tanglewood Ct., Lebanon, PA 17042	(717)273-6706
Kevin Funk	24944 Kaywood Ct., Escondido, CA 92026	
Doug Gardei	R.D. #2 Box 2313, Mohnton, PA 19540	(610)777-8987
Marcus Good	218 Fausnacht Dr., Denver, PA 17517	(717)336-4835
Richard Good	218 Fausnacht Dr., Denver, PA 17517	(717)336-4835
Dale Greene	244 Conoy Ave., Elizabethtown, PA 17022	(717)367-8646
Brandon Gromis	1948 Old 22, Lenhartsville, PA 19534	(610)562-8385
Duane Gromis	1948 Old 22, Lenhartsville, PA 19534	(610)562-8385
Rick Hackman	1500 Furnace Hill Pike, Lititz, PA 17543	(717)627-1598
Gerard Hertzog, Sr.	38 N. State St. Apt. 1, Ephrata, PA 17522	(717)721-9487
Gerard Hertzog, Jr.	38 N. State St. Apt. 1, Ephrata, PA 17522	(717)721-9487
Fred Hoke	968 Jay St., Lebanon, PA 17046	(717)272-2409
Ted Jones	3908 Jeffrey Rd., Huntingdon Val, PA 19006	(215)947-4753
William Jordan	1384 Perry Dr., Denver, PA 17517	(717)445-7341
Mark Kamide	42 Eastbrook Drive, Ephrata, PA 17522	(717)733-4140
Rheilly Knauer	680 Hopeland Rd., Lititz, PA 17543	(717)738-3948
Rick Knauer	680 Hopeland Rd., Lititz, PA 17543	(717)738-3948
Jason Knier	65 Brown Rd., Ephrata, PA 17522	
Stephen Knight	2 Richland Ln, Apt. 208, Camp Hill, PA 17011	
Robert Kurpiel	5 Circle Drive, Reinholds, PA 17561	(717)336-1174
Dennis Lorah	1692 Heebner Way, Lansdale, PA 19446	

Marie Lorah	1692 Heebner Way, Lansdale, PA 19446	
Paul Lorah	1692 Heebner Way, Lansdale, PA 19446	
Steve Machonis	145 Briarhill Ln., Ephrata, PA 17522	(717)656-4475
Steve Machonis	145 Briarhill Ln., Ephrata, PA 17522	(717)656-4475
Douglas McClearen	704 N. 6th St., Denver, PA 17517	(717)336-4001
William McClearen	704 N. 6th St., Denver, PA 17517	(717)336-4001
Andrew Miller	31 Summers Dr., Stevens, PA 17578	(717)336-0692
Casey Miller	31 Summers Dr., Stevens, PA 17578	(717)336-0692
Edward Miller	316 E. Queen St., Jonestown, PA 17038	(717)865-5240
James Munro	288 Turtle Hill Rd., Ephrata, PA 17522	(717)859-1089
Mathew Mussleman	150 Speedwell Forge Rd., Lititz, PA 17543	(717)626-1139
Dave O'Neal	116 Columbia Drive, East Fellowfiel, PA 19320	(610)383-1435
Michael Raush	1390 Franklin Rd., Columbia, PA 17512	(717)684-6302
Ron Raush	1390 Franklin Rd., Columbia, PA 17512	(717)684-6302
Joe Reganato, Jr.	2442 South 5th St., Philadelphia, PA 19148	(215)462-1339
Bill Rhoat	797-A Academy Hts, Ave., Ephrata, PA 17522	(717)733-6916
Brian Royer	344 Duke St., Ephrata, PA 17522	(717)733-3952
Alan Rubright	2189 Kolb Drive, Lancaster, PA 17601	(717)898-0487
Gary Rubright	2821 Michener Drive, Lancaster, PA 17601	(717)898-0218
William Schafer	9418 Dawn Drive, Baltimore, MD 21236	(410)256-4349
Beth Schuelkens	115E. Manor Drive, Lititz, PA 17543	(717)627-4525
Laura Schuelkens	115E. Manor Drive, Lititz, PA 17543	(717)627-4525
Richard Schuelkens	115 E. Manor Dr., Lititz, PA 17543	(717)627-4525
Alan Shepard	210 W. Franklin St., Ephrata, PA 17522	(717)738-2740
Robin Shepard	210 W. Franklin St., Ephrata, PA 17522	(717)738-2740
Ricky Snader	435 South State St., Ephrata, PA 17522	(717)733-9080
Carl Snyder	4610 Ballygar Rd., Baltimore, MD 21236	(410)256-7499
Chris Snyder	4610 Ballygar Rd., Baltimore, MD 21236	(410)256-7499
Mark Snyder	4610 Ballygar Rd., Baltimore, MD 21236	(410)256-7499
Courtney Sombers	217 Kimberly Lane, Ephrata, PA 17522	(717)738-0181
Frank Sombers	217 Kimberly Lane, Ephrata, PA 17522	(717)738-0181
Jesse Stauffer	153 Pleasant Valley Rd., Ephrata, PA 17522	
Brandon Tabbutt	340 Dogwood Dr., Hershey, PA 17033	(717)534-6759
David Wascavage	605 Georgetown Rd., Wallingford, PA 19086	(610)874-7868
Ben Weaver	5 Lynch Dr., Lebanon, PA 17042	(717)273-8423
Lester Weaver	5 Lynch Dr., Lebanon, PA 17042	(717)273-8423
Mathew Weaver	5 Lynch Dr., Lebanon, PA 17042	(717)273-8423
Daniel Weinhold	240 E. Frederick St., Lancaster, PA 17602	(717)392-8231
Joel Wood	505 Main St., Akron, PA 17501	(717)859-4883
Joel Wood	505 Main St., Akron, PA 17501	(717)859-4883
Logan Wood	505 Main St., Akron, PA 17501	(717)859-4883
Dan Yost	4112 Millbrook Rd., Mt. Joy, PA 17552	(717)684-9519
John Yost	4112 Millbrook Rd., Mt. Joy, PA 17552	(717)684-9519
Matt Zimmerman	446 Wissler Rd., New Holland, PA 17557	(717)354-7956

Almanac Statistics

by George Beever

SPAAR clo

**SPAAR Section
Performance Records
by R. Brust & Glenn Feveryear**

The following list contains the various SPAAR members who hold club records as of January 11, 1997. The purpose of this list is to record performance records set by anyone during a

SPAAR launch. There are no special rules on when and how a record can be set as long as it is done during a club launch. Timed flights can be made at any launch. The time must be record on the flight card and the model returned. Altitude flights can be made at a launch where the altitude trackers are setup. These are listed in the SPAAR Calendar. Each person that establishes a record will receive a nice parch-

ment certificate confirming the achievement. We want to encourage everyone to try for a record. This is not a competition, but it gives a purpose for a flight instead of just going up and coming down, as well as a goal to measure the modelers advancement. Following the club records is a list of those individuals who currently hold at least one record and how many they have.

CD

<u>Category</u>	<u>Club Member</u>	<u>Model</u>	<u>Motors</u>	<u>Date</u>	<u>Time/Alt/Points</u>
A Division					
1/2A Helicopter Duration	Daniel Yost		1/2A3-2T	09/05/93	26.00
1/2A Parachute Duration	Dave Bender		1/2A3-4T	11/03/91	44.50
1/2A Rocket/Glider	Daniel Yost			05/26/91	26.41
1/2A Streamer Duration	Dave Bender	X-1	1/2A3-2T	05/05/91	22.09
A Altitude	Doug Gardei		A8-5	08/07/94	78.8M
A Helicopter Duration	Daniel Yost		A3-2T	09/05/93	33.00
A Payload Altitude	Renee Feveryear		A8-3	09/05/94	28.67M
A Parachute Duration	Dave Bender	X-3	A3-4T	05/05/91	50.89
A Streamer Duration	Dave Bender			10/09/88	42.60
B Egg Loft Altitude	Renee Feveryear		B6-4	05/28/95	42.9M
B Egg Loft Duration	Derek Yost			05/26/91	17.22
B Helicopter Duration	Daniel Yost		B4-2	09/05/93	71.00
B Parachute Duration	Aaron Newman	Sizzler	B4-6	05/27/90	157.60
B Streamer Duration	Jason Wingenroth	Viking	B6-4	10/14/90	40.00
C Boost/Glider	Aaron Newman		C6-3	10/14/90	93.26
C Egg Loft Altitude	Renee Feveryear		C6-3	09/04/94	144.5M
C Egg Loft Duration	Daniel Yost			10/09/88	34.10
C Parachute Duration	Eric Marcella			09/03/89	66.44
C Streamer Duration	Dave Bender	Excalibur	C6-7	12/18/88	39.50
D Altitude	Roger Lee Dwyer Jr	Mean Machine	D12-5	07/19/92	166.5M
D Parachute Duration	Dave Bender	Gone	D12-7	10/14/90	94.60
E Altitude	Matt Weaver		D12/D12-3	05/26/96	315.2M
B Division					
1/2A Parachute Duration	Bill Rhoat			07/23/89	36.50
1/2A Streamer Duration	Bill Rhoat			07/23/89	38.90
A Altitude	Aaron Newman		A8-3	06/30/91	83.2M
A Parachute Duration	Bill Rhoat			08/14/88	27.60
A Streamer Duration	Bill Rhoat		A3-4T	07/22/90	85.70
B Altitude	Dave Bender		B4-6	08/07/94	265.4M
B Egg Loft Altitude	Matthew Musselman		B6-4	05/29/94	39.6M
B Egg Loft Duration	Bill Rhoat		B6-2	05/27/90	10.73
B Parachute Duration	Bill Rhoat			04/16/89	79.00
B Streamer Duration	Bill Rhoat			07/23/89	50.90
B Super-Roc Duration	Bill Rhoat			07/23/89	832.50
C Altitude	Dave Bender		C6-7	08/07/94	426.9M
C Egg Loft Altitude	Matthew Musselman		C6-5	05/29/94	100.4M
C Egg Loft Duration	Bill Rhoat			07/02/89	67.20
C Helicopter Duration	Bill Rhoat		C6-3	05/27/90	61.30
C Parachute Duration	Dave Wenrich			08/14/88	33.90
D Parachute Duration	Bill Rhoat			04/16/89	31.10
E Parachute Duration	Bill Rhoat			11/05/89	22.10
C Division					
1/4A Boost/Glider	Glenn Feveryear		1/4A3-4	05/03/92	25.89
1/4A Parachute Duration	Glenn Feveryear		1/4A3-4	11/08/92	102.38
1/4A Rocket/Glider	George Beever		1/4A3-2	05/24/92	16.12
1/4A Streamer Duration	Gary Feveryear		1/4A3-4	05/03/92	41.99
1/2A Altitude	Glenn Feveryear	Alt131	1/2A3-4T	09/03/95	163.0M
1/2A Boost/Glider	Glenn Feveryear		1/2A3-2T	07/23/89	71.50

1/2A Helicopter Duration	Glenn Feveryear		1/2A3-4T	09/05/93	61.00
1/2A Parachute Duration	Glenn Feveryear	Perhelion	1/2A3-4T	07/02/89	258.00
1/2A Rocket/Glider	Glenn Feveryear		1/2A3-2T	05/30/93	55.00
1/2A Streamer Duration	Glenn Feveryear		1/2A3-4T	09/03/95	139.00
1/2A Super-Roc Altitude	Glenn Feveryear		1/2A3-4T	05/28/95	460.00
1/2A Super-Roc Duration	Glenn Feveryear		1/2A3-2T	07/22/90	233.00
A Altitude	Alan Shepard		A8-3	09/01/96	106.6M
A Boost/Glider	Glenn Feveryear	Vulture	A3-2T	07/02/89	84.30
A Helicopter Duration	Glenn Feveryear		A3-4T	09/05/93	166.00
A Payload Altitude	Glenn Feveryear		A3-4T	09/04/94	110.9M
A Parachute Duration	George Beever		A3-4T	09/02/90	125.00
A Rocket/Glider	Glenn Feveryear	Vulture	A3-2T	09/01/91	109.80
A Streamer Duration	George Beever		A3-6T	09/15/91	132.34
A Super-Roc Duration	George Beever		A10-3T	05/27/90	415.00
B Altitude	Alan Rubright		B4-4	09/13/92	184.6M
B Boost/Glider	Glenn Feveryear	Fly Baby	B4-2	09/02/90	112.30
B Egg Loft Altitude	Glenn Feveryear	Egg131	B7-6	09/03/95	106.0M
B Egg Loft Duration	Ed Miller			05/26/91	83.89
B Helicopter Duration	Glenn Feveryear		B4-4	09/05/93	139.00
B Parachute Duration	Dale Greene		B4-6	07/02/89	184.90
B Rocket/Glider	Glenn Feveryear	Gull	B4-2	10/30/88	154.00
B Streamer Duration	Glenn Feveryear		B4-6	08/12/90	168.53
B Super-Roc Altitude	Gary Feveryear		B6-4	09/04/94	865.00
B Super-Roc Duration	Glenn Feveryear		B4-4	07/23/89	486.00
C Altitude	John Balmer		C6-5	08/07/94	147.4M
C Boost/Glider	Fred Hoke	HXP-1	C6-3	05/27/90	83.70
C Egg Loft Altitude	Gary Feveryear	B-Liner	C6-5	09/04/94	172.6M
C Egg Loft Duration	Glenn Feveryear		C6-3	10/09/88	156.00
C Helicopter Duration	Ed Miller		C6-3	05/24/92	197.70
C Parachute Duration	Dale Greene		C6-7	08/13/89	125.25
C Streamer Duration	Robert Balogh		C6-7	07/22/90	208.00
C Super-Roc Duration	Dick Rhoat		C6-3	09/03/89	533.42
D Altitude	Glenn Feveryear		D3-7	09/01/96	820.8M
D Boost/Glider	John Yost		D12-3	09/02/90	67.38
D DUAL Egg Loft Altitude	Glenn Feveryear		D21-7	05/24/92	294.0M
D Helicopter Duration	George Beever	Yost-A-Roc	D12-3	05/29/94	112.00
D Parachute Duration	Ed Miller		D12-5	07/02/89	120.07
D Streamer Duration	Flirt'n With Disaster		D12-7	05/28/95	95.44
E Altitude	George Beever	Attitude A	E18-7	07/19/92	269.9M
E Helicopter Duration	John Yost		E15-4	08/12/90	115.00
E Parachute Duration	Robert Balogh		E6-4	09/03/89	104.75
E Streamer Duration	Ed Miller		E25-10	07/22/90	106.00
F Altitude	George Beever		F25-6	08/07/94	355.7M
F Parachute Duration	George Beever		F25-6	08/12/90	83.40
F Streamer Duration	Ed Miller		F25-12	07/22/90	138.50
G Altitude	Ed Miller		G25-15	09/01/96	1527.7M
G Parachute Duration	Robert Balogh		G40-7	08/13/89	138.42
G Streamer Duration	Ed Miller		G25-10	07/22/90	181.60

Individual Totals

Glenn Feveryear	23	Aaron Newman	3	Dick Rhoat	1
Bill Rhoat	12	Dale Greene	2	Alan Rubright	1
George Beever	8	Matthew Musselman	2	Alan Shepard	1
Dave Bender	8	John Yost	2	Matt Weaver	1
Ed Miller	7	John Balmer	1	Dave Wenrich	1
Daniel Yost	5	Roger Lee Dwyer Jr	1	Jason Wingenroth	1
Robert Balogh	3	Doug Gardei	1	Derek Yost	1
Gary Feveryear	3	Fred Hoke	1		
Renee Feveryear	3	Eric Marcella	1		

BATF and the 62.5gram Propellant Limit

by Glenn Feveryear

Well folks it seems just when we thought things were going good in the expansion of high power rocketry the BATF has slung another flaming rocket into our path. At the December 1996 meeting of the NFPA (National Fire Protection Association) the BATF (Bureau of Alcohol, Tobacco and Firearms) decided to make a clarification of the 62.5-gram propellant limit. Effective at that meeting they announced that all motors will be evaluated in their assembled conditions to determine the total amount of propellant contained in the motor. This means that motors that were once considered *Easy Access*, because their individual propellant components weighed less than 62.5 grams, are now not accessible, if the total weight of the propellant components is more than 62.5 grams, unless you have a LEUP (Low Explosives Users Permit).

Sometime in the past few years the BATF had lead us to believe that rocket motors or reload components whose total propellant weight was less than 62.5 grams did not require a LEUP to possess or transport. Aerotech started to manufacture motors and reload kits under the name "Easy Access". This simply meant that in their interpretation these products were packaged in a manner that did not exceed the BATF requirements. Aerotech made available a number of new motor options not previously available to the rocketry community. Likewise flyers had the opportunity to get involved in High Power at reduced costs with the latest in motor technology, reloads. As all seemingly good things go, it must have been to good to be true. The BATF was under pressure by government agencies to be sure they were regulating high power materials in the manner intended in the legislation. The government agencies had increased concern that these products could be used as terrorist weapons. Similarly the BATF noted that larger motors were being produced that simply use more individual 62.5 gram components. So, armed with this enlightening and probably contrived information they made their statement.

Apparently it is believed that the BATF intended to truly limit motors to less than 62.5 grams and the rocket community made the interpretation that just meant individual components. More than likely the BATF realized we aren't as dumb as the Government wishes us to be and we were able get around their regulation in a manner they didn't think of. So like much of the ways of the Government today, increased regulations are being imposed to keep us little folks under their control. It is a darn shame, but one that we are forced to live with. What this means to the HPR flyer today, as pointed out in a letter from Mark Bundick, President of the NAR, is:

- a. As was the case prior to the ruling, HPR flyers who remain in their home state, buy an HPR motor from a licensed dealer in that state and use the motor on the field prior to leaving do not need an LEUP, and may continue to fly HPR motors under those terms.
- b. Other users of HPR motors with more than 62.5 grams of propellant have one year to obtain a LEUP and come into compliance.
- c. With congress preparing to rewrite the legislation which imposed both the need for the BATF to regulate ammonium perchlorate based motors and the 62.5 gram limit, the NAR, Tripoli and the sport rocketry industry has the opportunity to assist in the legislative process to obtain long term relief from what we believe is excessive regulation.

So now if you go to a meet like *Roar at the Shore* and you don't have a LEUP or you aren't a resident of the wonderful state of New Jersey you won't be flying anything bigger than a "G" motor. Looks like there will be more Estes rocket pads at RATS this year after all. And just how many G-motors can be clustered and staged into a 4" tube?

Unfortunately this is probably going to be another long and drawn out process. Their really isn't anything that can be done in the short term. The NAR will be discussing the issue at the January Trustees

meeting. Mark Bundick says he will be contacting us for our help when the time is right. Until then hunker down for the long fight and buy a pack of paper, a bunch of envelopes and a few printer cartridges and prepare to write when the call goes out.

This may not be effecting everyone directly, but we all need to get involved so these regulations don't continue to grow and eventually put us all out of business. If you would like to read Mark Bundick's "Message from the President" you can check it out on the NAR web page at, <http://www.nar.org>. **CD**

**SOUTHERN PENNSYLVANIA AREA ASSOCIATION OF ROCKETRY /
TRIPOLI SUSQUEHANNA
BYLAWS**

ARTICLE 1, NAME: The name of this organization shall be the **SOUTHERN PENNSYLVANIA AREA ASSOCIATION OF ROCKETRY**, a Section of the NATIONAL ASSOCIATION OF ROCKETRY and TRIPLOI SUSQUEHANNA, a prefecture of the TRIPOLI ROCKETRY ASSOCIATION.

ARTICLE 2, PURPOSE: It shall be the purpose of this Section to:

- A. Aid and abet the aims and purpose of the NAR in south central Pennsylvania and northeastern Maryland;
- B. Operate a model rocket range and conduct model rocket launch activities in accordance with NAR standards and regulations;
- C. To hold meetings for the purpose of aiding and encouraging all those interested in model rocketry;
- D. To engage in other scientific, educational or related activities as the NAR, Section or the Section Board of Directors may from time to time deem necessary or desirable in conjunction with the foregoing.

ARTICLE 3, MEMBERSHIP: The membership of this organization shall consist of all interested persons, regardless of age, sex, race or creed who express a desire to join, pledge to follow the NAR Model Rocket and High Power Safety Code and who pay promptly all dues moneys as assessed by the Section. All members or prospective members are encouraged to join the NAR.

ARTICLE 4, MEETINGS: Meetings of the Section shall be held at times and places designated by the Section Board of Directors. Club launch activities, workshops etc., shall not be considered a meeting however, meetings may be held before or after these activities. Members are encouraged to attend all meetings.

ARTICLE 5, DUES: Dues shall be according to the following schedule:

DIVISION A: 14 years old and younger, \$5.00 per year

DIVISION B: 15, 16 and 17 years old, \$7.00 per year

DIVISION C: 18 years old and older, \$10.00 per year

Dues are collected for a 12 month period from the month of application. These section dues are separate and distinct from any national dues paid to the NAR. All dues moneys shall be kept in a general fund by the Secretary-Treasurer and shall be paid out by him only by order of the Section Board of Directors. Special assessments may be levied by a majority vote of members present and voting at any meeting of the Section, provided notice of such intent is given in writing to each member at least five days preceding such a meeting.

ARTICLE 6, OFFICERS AND THEIR DUTIES: The officers of this Section shall consist of a President, Vice-President and a Secretary-Treasurer, all of whom shall be members of the Section and the NAR.

The President is charged with overseeing the activities of the Section, in regards to meetings, events and whatever other duties assigned to him by the membership, through the Board of Directors.

The Vice-President shall assist the officers and Board of Directors on the operation of the Section and shall be the President's appointee to oversee the operation of section meetings or events in his absence. In addition, if the President for any reason cannot complete his term, the Vice-President shall fill the unexpired balance of that term.

The Secretary-Treasurer shall collect all dues moneys and make disbursements from the general fund at the direction of the Board of Directors. In addition, he shall make a Treasurer's report at every section meeting, outlining all income, expenditures and the balance of the general fund. In addition, the Secretary-Treasurer shall take minutes of each meeting, and make them available to the membership.

ARTICLE 7, BOARD OF DIRECTORS: The Board of Directors of this Section shall consist of the three officers, one member-at-large, and a senior member of the NAR, who shall be designated by the NAR as Section Advisor.

ARTICLE 8, ELECTIONS: The nomination of officers and Board of Directors members shall be received at the monthly meeting held in November of each calendar year. The election of officers and board members shall take place by means of secret ballot at the meeting in December. The results will be announced and the duties of the new officers and members of the Board shall begin immediately. All officers and members of the Board shall serve a term of one year. Vacancies in offices and on the Board shall be filled by nomination and election of a section member to fill the unexpired term of office and shall take place at the section meeting at which the vacancy is announced, with the exception of the President.

ARTICLE 9, COMMITTEES: There shall be four standing committees of the Section plus such additional committees as the Board

of Directors may from time to time deem necessary or desirable. The chairperson of each committee shall be appointed by the President. The standing committees are as follows:

- A. Operations Committee shall be in charge of the Section's model rocket range, shall monitor the experimental technical activities of the section members and shall act as safety inspectors. The chairman of this committee shall be a senior member of the NAR in good standing and shall act as range safety officer and control officer under the NAR official standards and regulations.
- B. The Contests and Records Committee shall be in charge of all arrangements for contests and shall monitor all National record attempts by section members. The committee shall contain at least one senior member of the NAR.
- C. The High Power Rocketry Committee, hereafter referred to as "HPR", shall consist of a volunteer chairperson, who shall be a senior member of the NAR in good standing and any other section member who is 18 years of age or older. The HPR committee shall be in charge of making all necessary arrangements for section HPR launches, including, but not limited to, launch site determination and FAA waiver acquisition. The HPR committee shall also monitor the NAR HPR certification program within the Section, keeping a written record of the various HPR levels attained by section members. The chairperson of the HPR committee, or his/her designate, shall act as the range safety officer at section HPR launches.

The Section President shall be an ex-officio member of all committees.

ARTICLE 10, AMENDMENTS: These bylaws may be amended by a two-thirds vote of those Section members present and voting at any meeting of the Section, providing written notice of the pending amendment has been sent to the membership of the section at least five days in advance of such a meeting. No amendment of these bylaws shall be in force until submitted to NAR headquarters.

Last Revised: 17 November 1995

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

SPAAR

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THE SOUTHERN PENNSYLVANIA AREA ASSOCIATION OF ROCKETRY

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