

OFFICIAL NEWSLETTER OF  
THE SOUTHERN PENNSYLVANIA AREA ASSOCIATION OF ROCKETRY

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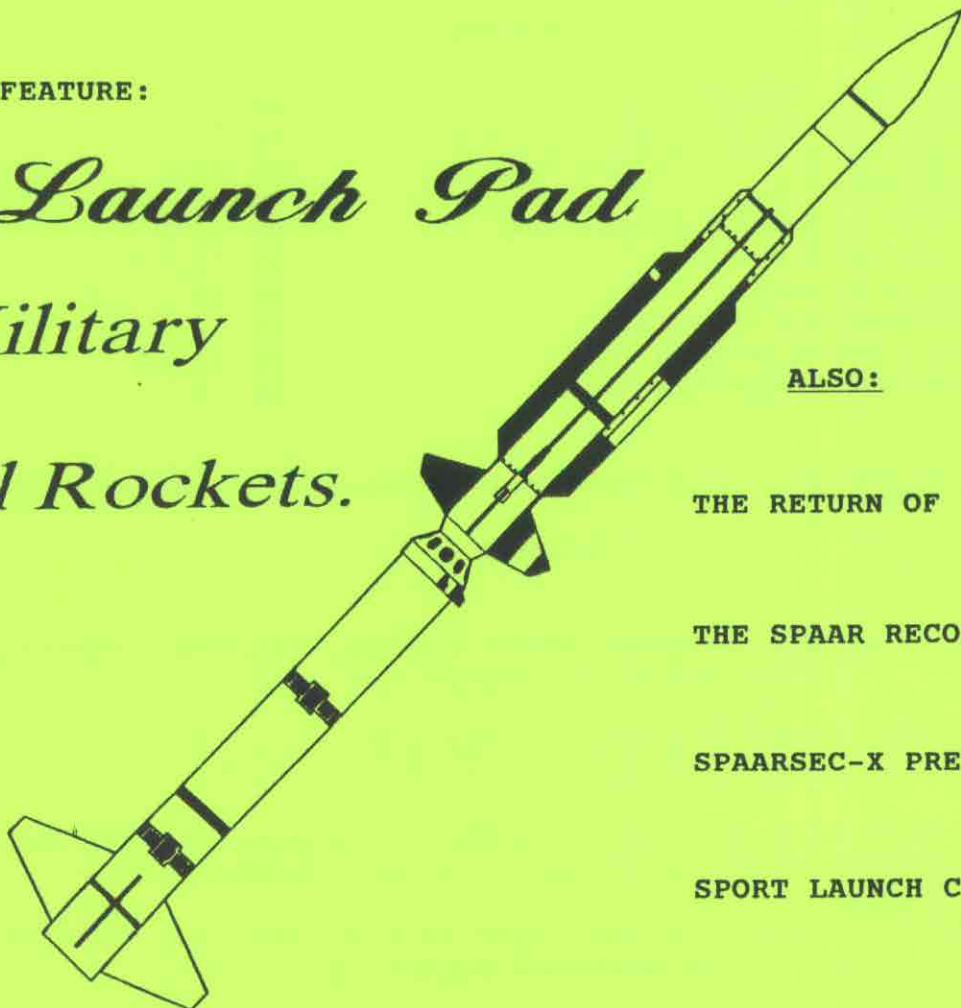
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MANUFACTURE:

*The Launch Pad*

*Military*

*Model Rockets.*



ALSO:

THE RETURN OF *SuperChicken*

THE SPAAR RECORD BOOK

SPAARSEC-X PREVIEW

SPORT LAUNCH COVERAGE

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The Countdown

Volume 7, Issue 2

March/April 1994

**SPAAR, the home of 1992-93 C Division champ Glenn Feveryear**

The Countdown is the newsletter of SPAAR, the Southern Pennsylvania Area Association Of Rocketry, NAR Section #503, PO Box 127, Reamstown, PA 17567. Non-member subscription rate, \$6 per year, six issues. Please make all submissions to address above. Material may be used with proper credit.

Cover Logo: **Bob Stott** Jacket Design: **Bruce Canino** Editor: **George Beever**

Thanks This Time To:  
Glenn Feveryear & Trevor Smedley

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**SCHEDULE**

**SUNDAY, MAY 15, 1994: MEETING/SPORT LAUNCH, 1PM-5PM, COCALICO HS.**  
**\*\*\*\* SOUNDING ROCKET DAY \*\*\*\***

**SUNDAY, MAY 29, 1994: SPAARSEC-X, 9AM-5PM, COCALICO HS.**  
**EVENTS : B ELD, B ELA, C ELD, C ELA**

**SAT & SUN, JUNE 11 & 12, 1994: RAMTEC-2 REGIONAL, CENTER VALLEY**  
**EVENTS: E HD, A RG MULTI, B ELD, C SRD, PMC.**

**SUNDAY, JUNE 26, 1994: MEETING/SPORT LAUNCH, 3PM-7PM, COCALICO HS.**  
**\*\*\*\* CLUB DURATION RECORD DAY \*\*\*\***

**COME ON OUT AND TRY TO SET A NEW CLUB DURATION RECORD!!**

**SECTION MEETINGS****26 March 1994**

**Present:** Glenn, Rita, Daniel, Renee Feveryear; J. Yost; D, Greene; B. Rhoat; George & Mark Beaver:

**Treasurer:** .28 current members. Balance at the end of last meeting: \$211.06.

Incomes: \$30 in dues, \$30.25 auction profit.

Expenditures: \$9.75 in auction fee.

Current Balance: \$251.56

**HPR:** Battle Park '94 will be held May 21-22 in Culpeper. Central VA/Tripoli #25 will also hold three more HPR launches in '94, dates TBA.

**Competition:** Glenn reports that RAMTEC-2 plans are proceeding; a Regional Contest newsletter was received from Jeff Vincent; a Flight Log form is being considered as a replacement for Contest Flight Cards.

**Section Advisor:** passed out copies of the December NAR Board Meeting Minutes; the Section Charter has been renewed.

**Old Business:** Preliminary contacts have been made for our use of a field at the West Hempfield Twp. municipal building. President Glenn will write a formal letter requesting permission, and will

then send in specific dates. Most likely time period for it's use, if granted, would be in the fall when we have problems with youth soccer leagues at Cocalico.

**New Business:** John Yost purchased a PA system, to be "rented" to the club.

Glenn had to purchase a new battery for the launch system, which cost about \$55. Also, meet supplies were ordered from NARTS for \$46.75.

**The next meeting will be on Saturday, April 16, at 7PM, at George Beaver's house.**

\*\*\*\*\*  
**A SURPRISE FROM CANADA!!!** On the next two pages, you will be treated to a surprise from our friend up north. We all remember Trevor Smedley, who moved back to his native Canada a couple of years ago. Trevor is best remembered for two things: his pleasant, friendly demeanor, and a particularly original egglofter: The Super Chicken. This model definitely goes down in the lore of SPAAR as one of the most entertaining {grin} models ever flown at a club launch. Ya wanna fly an egg? Why not in it's natural habitat?

**Thanks, Trev, and maybe we will show up on your doorstep!!!**

## Notes From the North

Hi Everyone!

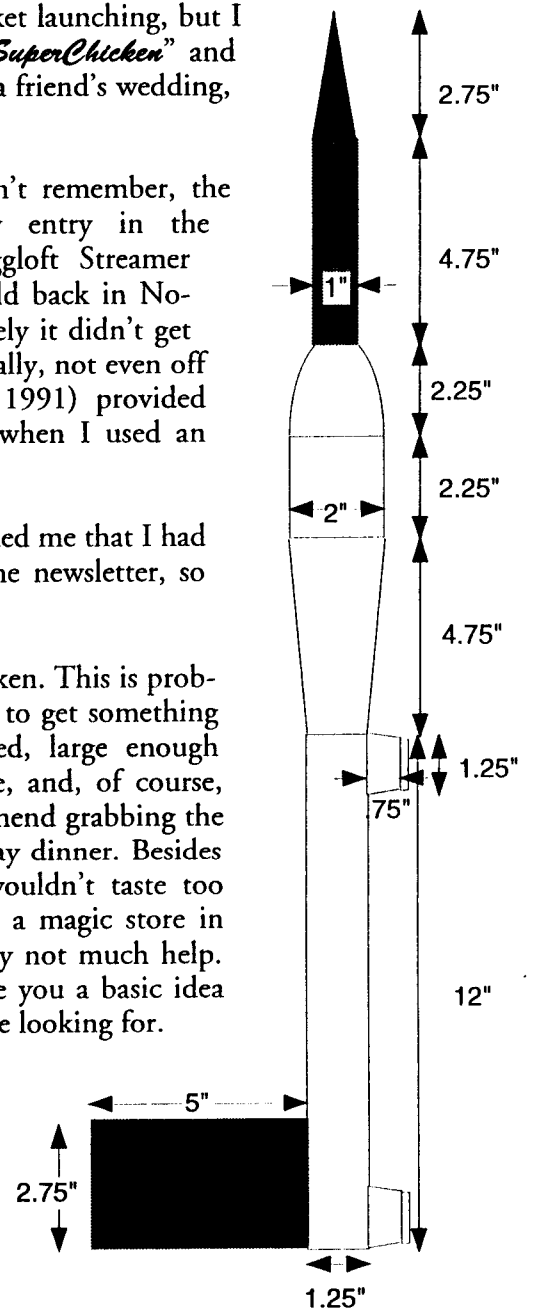
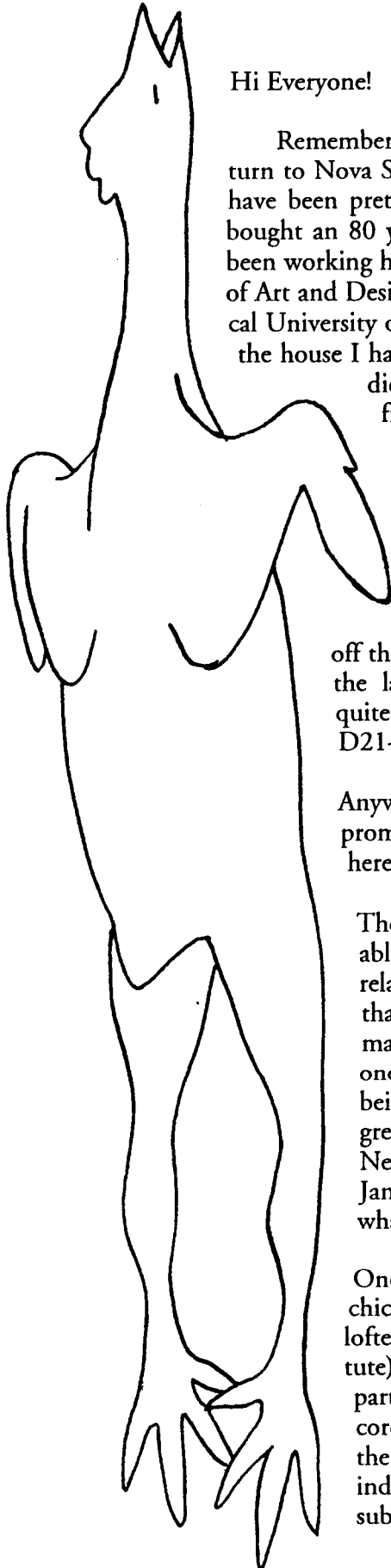
Remember me? It's been about two and a half years since I left Delaware to return to Nova Scotia, and I have to admit I have missed the SPARR launches. Things have been pretty busy here for my wife Jane and myself. Shortly after moving we bought an 80 year old house that had been neglected for most of its life, and have been working hard on getting it into shape. Jane is attending the Nova Scotia College of Art and Design, and I am working hard teaching Computer Science at the Technical University of Nova Scotia. I'm afraid that between work and the house I haven't had much time for rocket launching, but I did manage to resurrect the "*SuperChicken*" and fire it off not too long ago (at a friend's wedding, actually).

For those of you who don't remember, the "*SuperChicken*" was my entry in the SPARRSPAM-2 "Open Eggloft Streamer Spot Landing" contest held back in November 1990. Unfortunately it didn't get off the ground at the contest, (actually, not even off the launch rod) but later (May 1991) provided quite an impressive performance when I used an D21-4 in place of the C5-3.

Anyway, launching it again reminded me that I had promised to draw up plans for the newsletter, so here they are:

The first step is to buy your chicken. This is probably the most difficult part. Try to get something relatively aerodynamically shaped, large enough that the egglofter will fit inside, and, of course, made of rubber. (I don't recommend grabbing the one that was intended for Sunday dinner. Besides being too heavy, it probably wouldn't taste too great afterwards.) I got mine at a magic store in Newark, DE, but that's probably not much help. Jane has drawn a picture to give you a basic idea what shape chicken you should be looking for.

Once you've located a suitable chicken, buy an Estes egglofter kit (or a suitable substitute) and grab a few spare parts. Build the egglofter according to the directions with the following modifications (as indicated by the shaded areas on the subframe diagram):



*SuperChicken* Subframe

- Use larger and/or more fins. I just used three rectangular pieces of balsa, roughly 5" x 2.75", but you might want to go with something more imaginative. This worked fine for me, but I had a pretty aerodynamic chicken, so if yours is sub-optimal, you may want even larger fins to compensate.
- Add a neck support. Find a tube that fits nicely inside your chicken's neck, and a nosecone that supports the beak, and epoxy this to the top of the egglofter. My chicken had its beak open, so I used a nosecone that stuck out about an inch, and then taped the beak onto the nosecone to reduce turbulence — use your imagination.
- Rig up some sort of recovery harness. If you just use the parachute as it comes with the egglofter, your chicken will come down head first, and will likely break it's neck. I recommend something like the way they do it for the top section of the Saturn V. You might also consider recovering the two parts of the rocket with separate parachutes. My first successful launch resulted in a broken shock cord, and the lower part came down "like a rocket." Those big fins made it nice and stable on the way down, too!
- Substitute a larger engine mount. The *SuperChicken* needs at least a D to get off the ground, so if you use the Estes mount you'll need a composite D to fit.
- Use larger launch lugs. This is **not** a light rocket, and you'll need the biggest rod you can find to hold it straight.

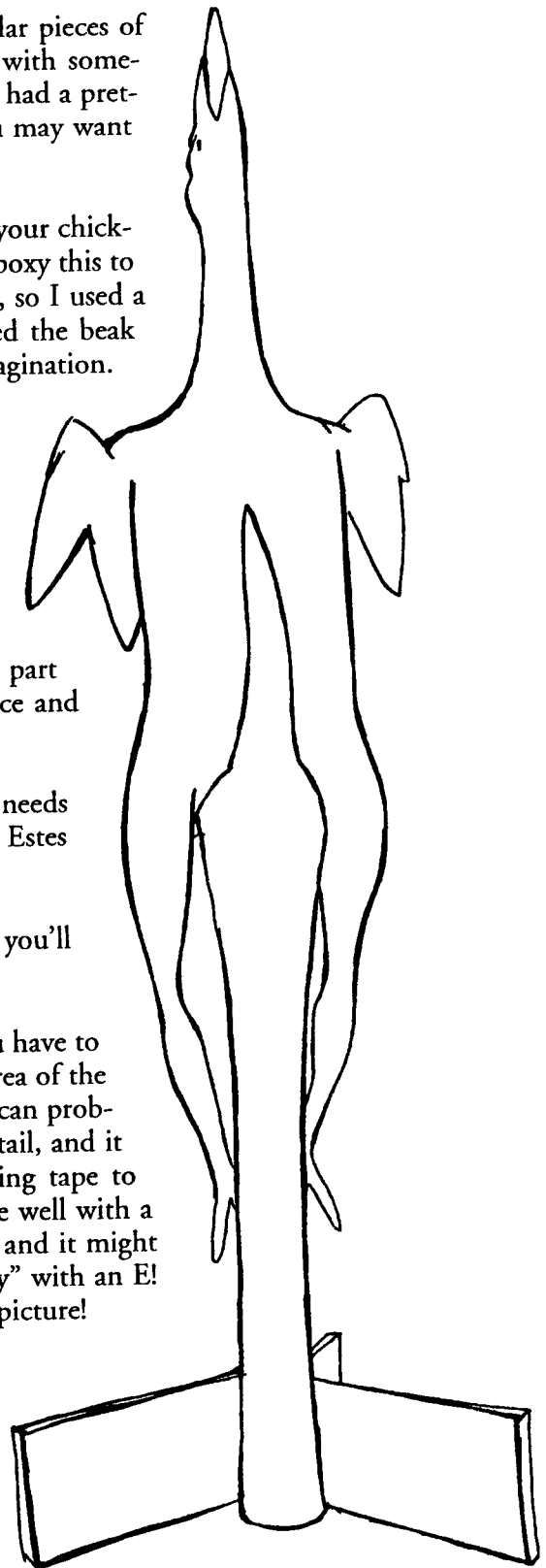
Ok, you've got your subframe and your chicken, now all you have to do is get them together. For mine, I slit open the stomach area of the chicken (not for those with weak stomachs, but I think you can probably manage it) and cut away a bit of the rubber under the tail, and it fit quite nicely over the subframe assembly. A little masking tape to hold it together, and you're ready to go. Mine worked quite well with a D21-4. You could probably get it up with an Estes D12-3, and it might be a good idea for your first flight, but I bet she'd really "fly" with an E! Please let me know if you build one of these, and send me a picture!

Good luck, keep in touch, and if you're ever up in this part of the world, stop in for a visit. Our address is 2726 Northwood Terrace, Halifax, Nova Scotia, Canada B3K 3S8. (902) 454-5043.

Happy Launching!



Trevor Smedley



Completed *SuperChicken*

SPAAR SPORT LAUNCH

Once again, the weather gods smiled down on us on March 13. As with our February 6 Sport Launch, the sun was out and the breeze was mild. There was a thick crust of snow to contend with, but the flying was good. However, only 6 diehards showed up to take advantage of it!

This was the first launch of 1994 that Ed Miller could attend. Ed always has something new and interesting to fly, and "The Legend" himself did not disappoint us. Ed has a new job with Hershey Foods. So of course, his first flight of the day was an overgrown Hershey Kiss with a G64-4WL reload. We're not kidding. The darn thing was perfectly stable, too.

Ed also flew an FSI Hercules with an F100 [look ma, no CATO!], and an NCR Eliminator with an F25 for a perfect flight. He also flew the Estes Titan IIIIE, Sentinel, and Super Big Bertha, as well as the scratchbuilt Tarsis all on various Aerotech reloads.

Rick Hackman flew a wide variety of models. The best flights were of his XR-55 and of his Estes Patriot. This is the "old" 1977 Patriot, not the Surface-To-Air missile. Rick also brought out the "Kit Bag Rocket", the one that led him to capturing the 1993 Rocket-Lok Award. Still needs work, Rick!

Glenn Feveryear took advantage of the mild weather to test out the results of one of his winter projects. He's been working on some 13mm fiberglass tubes for competition use. From what we saw, he's got it down just about right. [see Glenn, I didn't give away any secrets!] He also flew one of his homemade fiberglass tube FAI S6 designs. These 30mm wonders are used in FAI parachute and streamer duration events, and are extremely light in spite of their diameter.

Glenn also flew a rocket glider that we've all seen many times, the Gull. This is a swing-wing design, that Glenn likes to fly in B Rocket Glider. It was originally designed for a C motor, and Glenn wanted to see what it would do. A transition problem limited flight #1, but #2 went out of sight after 2 minutes. Not bad!

Mark Beever had another good flight with his Quest Tracer, but Dad didn't fare so well. He flew an A Rocket Glider that flew as well as an old shoe. Then, an Aerotech D21-7 CATO'd in his MRC Standard Arm. The motor mount was destroyed, but the model is still flyable. His only good flight was with an old, beaten up Super Big Bertha with an Aerotech D21-4T. Ed made a major league of it as it came down over the parking lot. Thanks Ed!

FLIGHT LOG

March 13, 1994

<u>#</u>	<u>FLYER</u>	<u>MODEL</u>	<u>MANUF</u>	<u>MOTOR[S]</u>	<u>RESULT</u>
1	Rick H	Thor Missile	SB	E B4-2	Good Flight
2	Rick H	Thor Missile	SB	E A8-3	Good Flight
3	Rick H	XR-30	SB	E 1/2A3-2	Good Flight
4	Rick H	XR-37	SB	E B4-4	Good Flight
5	Rick H	XR-55	SB	E C6-3	Good Flight
6	Rick H	Patriot	Estes	E C6-3	Good Flight
7	Rick H	Kit Bag Rocket	SB	E C6-0	Unstable
8	Ed M	Hershey Kiss	SB	AT G64-4 RMS	Good Flight
9	Ed M	Hercules	FSI	FSI F100-6	Good Flight
10	Ed M	Sentinel	Estes	AT C6-5T RMS	Good Flight
11	Ed M	Titan IIIE	Estes	AT D15-4T RMS	Good Flight
12	Ed M	Eliminator	NCR	AT F25-4WL	Good Flight
13	Ed M	Tarsis	SB	AT G64-4 RMS	Good Flight
14	Ed M	Super Big Bertha	Estes	AT E18-4 RMS	Good Flight
15	Glenn F	1/2A Altitude	SB	E 1/2A3-4	Good Flight
16	Glenn F	1/2A Altitude	SB	E 1/2A3-4	Good Flight
17	Glenn F	Gull RG	SB	E C6-3	19.84s GF
18	Glenn F	Gull RG	SB	E C6-3	133.5s NR
19	Glenn F	S6A	SB	E A3-6	51.1s GF
20	Glenn F	D Dual Egg	SB	E D12-5	Good Flight
21	Mark B	Tracer	Quest	E A8-3	Good Flight
22	George B	Super Big Bertha	Estes	AT D21-4T	Good Flight
23	George B	A RG	SB	E A3-4	19s
24	George B	Standard ARM	MRC	AT D21-7T	CATO

Flight Statistics**Types of models flown:**

Scratchbuilt: 12  
 Estes: 5  
 NCR: 1  
 Quest: 1  
 FSI: 1  
 MRC: 1

**Motor usage:**

Estes: 15  
 FSI: 1  
 Aerotech SU: 3  
 Aerotech RMS: 5  
 Blackpowder: 16  
 Composite: 8  
 Failures: 1 [D21-7]

**ATTENTION EGGLOB FANS!!**

**SPAARSEC-X**

**THE EGGSTRA SPECIAL  
SECTION MEET!**

**WHEN: SUNDAY, MAY 29, 1994**

**9AM TO 5PM**

**WHERE: COCALICO SENIOR HIGH  
DENVER, PA**

**EVENTS: B EGGLOFT ALTITUDE**

**B EGGLOFT DURATION**

**C EGGLOFT ALTITUDE**

**C EGGLOFT DURATION**



**IT'S EGGSCITING!**

**IT'S EGGSTRAORDINARY!!**

**WHAT!???: NO, WE HAVEN'T LOST OUR MINDS! JUST THINK OF IT.... A MEET THAT CAN BE FLOWN WITH JUST ONE MODEL! YOU CAN FLY THE WHOLE THING WITH JUST FOUR FLIGHTS!!**

**WHO CAN FLY?: THIS MEET IS OPEN TO ALL SPAAR MEMBERS, WHETHER YOU ARE AN NAR MEMBER OR NOT. JUST COME ON OUT AND FLY THOSE EGGS!!**

**IF YOU'VE NEVER FLOWN IN A ROCKETRY CONTEST BEFORE, THIS ONE'S FOR YOU. EGGLOFTING IS CHALLENGING AND FUN, ALWAYS FULL OF... YOLKS.**

**A LIMITED NUMBER OF EGGLOFTER KITS WILL BE MADE AVAILABLE, \$5 FOR ADULTS, FREE TO SPAAR MEMBERS 17 OR YOUNGER.**

**OK, WHAT'S THE CATCH?**

**IF YOU GET A FREE EGGLOFTER KIT, WE'D OF COURSE LIKE TO SEE YOU AT THE CONTEST! [SOUNDS REASONABLE, RIGHT?]**

**IF YOU WANT A KIT, PLEASE LET THE CONTEST DIRECTOR KNOW BEFORE MAY 1, 1994.**

**FOR MORE INFORMATION, CONTACT:**

**GEORGE BEEVER [THE CD]**

**717-733-4170**



FLIGHT LOG

April 9, 1994

<u>#</u>	<u>FLYER</u>	<u>MODEL</u>	<u>MANUF</u>	<u>MOTOR[S]</u>	<u>RESULT</u>
1	Mark B	Pegasus	Estes	E A8-5	Good Flight
2	Glenn F	1/2A Alt	SB	E 1/2A3-4	Good Flight
3	Glenn F	Big Bertha	Estes	E B6-4	Good Flight
4	Glenn F	Ranger	SB	E C6-7[3]	GF-Gone!
5	Glenn F	Onyx	LOC	AT E1504WL	Good Flight
6	Dale G	V-2	Estes	E D12-3	GF-Oldie!!
7	Dale G	Das Blue Max	ORI	AT G64-7RMS	<b>GOOD FLIGHT</b>
8	Dale G	Magnum	Estes	AT D21-7T	Good Flight
9	Dale G	Super Big Bertha	Estes	AT D21-4T	<b>OUCH!!!</b>
10	Gary F	IRIS	Estes	E C6-3	Good Flight
11	Gary F	Big Brute	NCR	AT F40-7RMS	Good Flight
12	Bill R	Sentinel	Estes	E B6-4	Good Flight
13	Bill S	Scamp	Estes	E B4-6	Good Flight
14	Bill S	Gabriel	Designex	E D12-5	Good Flight
15	Bill S	D X 2	SB	E D12-7	Good Flight
16	Ed M	Micro Scorpion	SB	E A10-0/A3-4	Good Flight
17	Ed M	Scorpion	Estes	E B6-0/A8-5	Good Flight
18	Ed M	Warp II	Estes	E C6-0/B4-6	Good Flight
19	Ed M	Shock Wave	SB FSI	F100-0/F100-6	Good Flight
20	Ed M	Explorer Aquarius	Estes	AT D13-4RMS	Good Flight
21	Ed M	Super Big Bertha	Estes	AT E15-4WL	Good Flight
22	George B	HV ARCAS	Aerotech	AT F25-6WL	SEP
23	George B	Maxi-Force	Estes	E D12-7[3]	Good Flight
24	George B	Patriot	Estes	E D12-7[4]	Good Flight
25	George B	Viper III	LOC	E D12-5[3]	Good Flight
26	George B	Maxi Honest John	Estes	E D12-3	Good Flight

FLIGHT STATISTICS

Models flown:

Scratchbuilt: 5  
 Estes: 15  
 Aerotech: 1  
 LOC: 2  
 Designex: 1  
 NCR: 1  
 ORI: 1

Motor usage:

Estes: 29  
 FSI: 2  
 AT SU: 5  
 AT RMS: 3  
 Total: 39  
 Failures: 0

**SPORT LAUNCH**

Our April 9 Sport Launch was held near Hickory, MD., on a field owned by the church that Glenn and his family attend. The field will eventually be the location of a new church. For now, however, it is available to us in early spring and late fall. Crops are planted in the meantime.

April 9 was a typical early spring day; crisp in the morning, warming through the afternoon. However, the breeze picked up all day, which meant we flew only from 9AM to about 12:30. But with this much field, the breeze didn't matter much!

Bill Schafer was able to attend, bringing some of his rather unique designs. One, the Gabriel, he markets as a kit [Designex Corp.]. This model uses a recovery system not unlike the old Estes Gyroc.

Dale Greene survived his first night back on the midnight shift at Armstrong. He flew some goodies, including a classic Estes Maxi V-2, a model that he picked up [built] when a hobby shop in Harrisburg went out of business. The flight was pretty impressive, as was the model. Rumor has it that Estes may add this one to the Classics series next year. [We hope!] Also, the Das Not Yet Blue Max is, in fact, blue. The blue paint was barely dry as it lifted-off under G64 power for another impressive flight. Yes,

the Max may just be able to help us forget about the Big Brute after all.....

Glenn flew a Big Bertha on a B6-4 for a nice flight, then flew his Ranger clone on 3 C6-7s. The model was, in the words of ESPN's Dan Patrick... gone. Too bad, because that model had many good flights on it. Glenn's LOC Onyx also turned in a nice flight on an Aerotech E15-4 White Lightning.

Ed Miller appeared to be the only one who remembered Multi-Stage Day. He flew 4 multi-stage models, including the Shock Wave, a staged F100 powered beast that is exciting to watch. Maybe we can talk Ed into submitting the plans [hint, hint.]

George must have thought it was Cluster day. He went through 10 D12s in his Maxi-Force, Patriot, and Viper III. The Patriot's flight was it's first, and it flew well, much higher than expected.

Bill Rhoat flew his Estes Sentinel, which someone commented may be old enough to vote. Despite it's age, it still flies well. Gary Feveryear flew his Big Brute on an F40 reload, for a great flight. The Brute is always fun to watch.

We hope to have another Sport Launch on this field in the fall. Hope you can be there!

**MANUFACTURE:**

## *The Launch Pad*

The Launch Pad is a rather unique company that was begun a few years ago by Charles Barndt of Springfield, VA. What was so different about The Launch Pad, at least at the start, is that Barndt did not offer kits, or parts, or launch equipment, or payloads or motors.

So just what did The Launch Pad have to offer? Plans. Well researched and thought out plans of actual military and military-style rockets and missiles. Barndt uses the term Plan-Pak. In each Plan-Pak are a list of building materials and instructions required to make the model. It is up to the modeler to detail the model to his heart's content.

Within the past year, however, The Launch Pad has released a number of kits, all of missiles that are also available as Plan-Paks. Barndt also offers a limited line of recovery equipment, engine clips, and tubing couplers.

I received a catalog from The Launch Pad early in 1993, and was impressed immediately by Barndt's approach, in regards to the Plan-Paks. The number available, and the real prototypes that they represent. A sampling includes: Bullpup, Exocet, SCUD, SA-2 Guideline, Kormoran, Sidewinder, Hawk, and AIM-54 Phoenix. Most models are built around 2.6" [BT-80]

tubing, which makes for some rather large models. Recommended power is provided by the venerable Estes D, mostly in clusters.

I had the opportunity to meet Barndt this past summer at NARAM-35. His vehicle attracted a lot of attention in the parking lot at the range. It was the only one with a Hawk Anti-Aircraft Missile on the hood! At that time, I purchased two Plan-Paks [Hawk and Kormoran, a German missile], as well as a kit, the Anubis. The Anubis is a Launch Pad original design. Glenn Feveryear purchased the Plan-Pak for the Nike-Hercules MIM-14A at the same time, so we compared notes.

The first thing that jumps out at you when you read through the Plan-Pak is the fact that there is no "Parts List" in the traditional sense. What is listed are parts dimensions, such as "one 12" length of 2.6" tubing" instead of "12" of BT-80". Why? Because Barndt gives you instructions on how to make your own parts, and from what materials. You have the option, of course, to use commercially available parts and components, but I think that the real "scratchbuilt" approach is pretty neat.

As mentioned before, the power of choice in most of The Launch Pad designs is the D12. Some,

like the ASRAAM and Bullpup, use single motors. Others use the cluster method, such as Excocet [2] and TAN-SAM [a Japanese Surface-To-Air Missile]. And still others, such as the Nike-Hercules, SA-2 Guideline [Russia] and Masurca [France] use clusters **and** staging, by means of on-board electrical ignition of the upper stage.

The Launch Pad is not limited to actual international military hardware as the subjects for it's models. There are a number of designs of "Launch Pad originals" that could pass for the real thing. They include Anubis, Warlock, Scimitar, and Perseus.

In 1993, The Launch Pad introduced several of it's designs in kit form. They include ALARM [Britain], ASRAAM [UK, Germany, USA], Bullpup AGM-12B [USA], Excocet [France], and Perseus [The Launch Pad].

As of this writing, I have not had the chance to build either the Kormoran or Hawk. I have assembled the components, however, and I am simply looking for the time to dive in. They both look challenging to build, and should be impressive in size and detail.

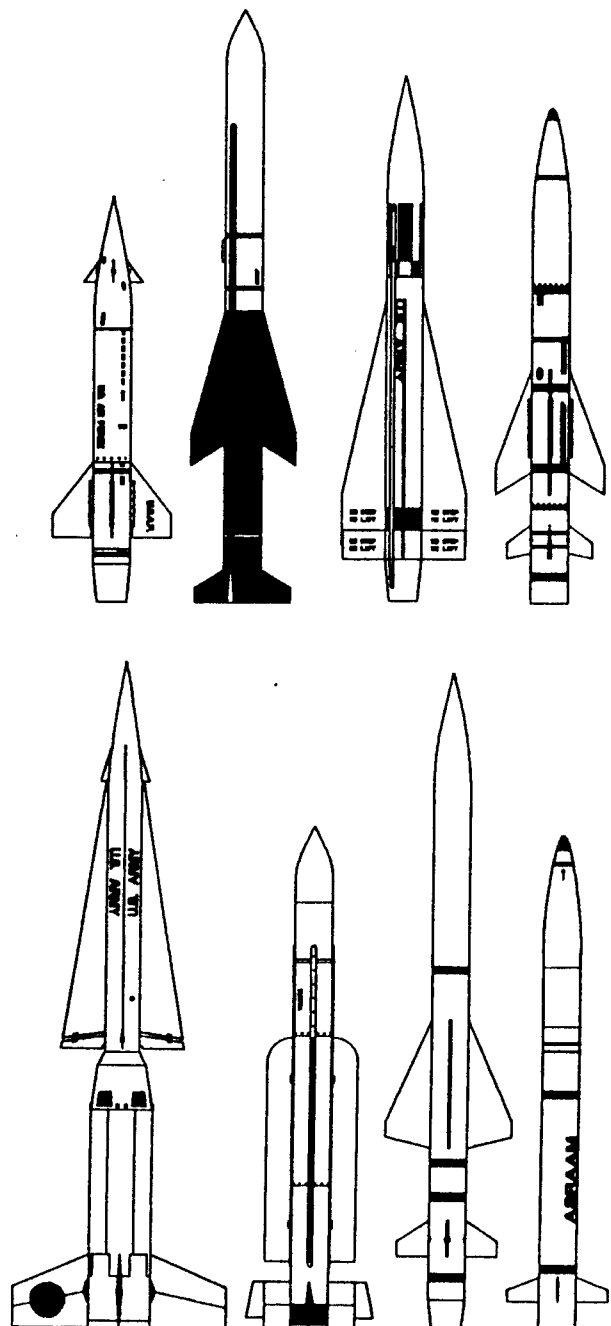
I think Charles Barndt is on to something here. The Launch Pad is not your average rocket company, it's a little bit different. That in itself is a refreshing change. For more information, write:

## THE LAUNCH PAD

8470 MISTY BLUE CT.

SPRINGFIELD, VA 22153

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AREA   EVENTS   CALENDAR

**ECRM-21 REGIONAL**

Middletown, MD  
April 23 & 24, 1994  
Host: NARHAMS #139

**Events:**

- 1/4A Parachute Duration Multi
- A Helicopter Duration
- C Rocket Glider Multi
- E Dual Eggloft Altitude
- Sport Scale

Call: Tom Lyon, 301-855-9457  
\*\*\*\*\*

**NICE-16 OPEN**

Manassas, VA  
May 1, 1994  
Host: NOVAAR #205

**Events:**

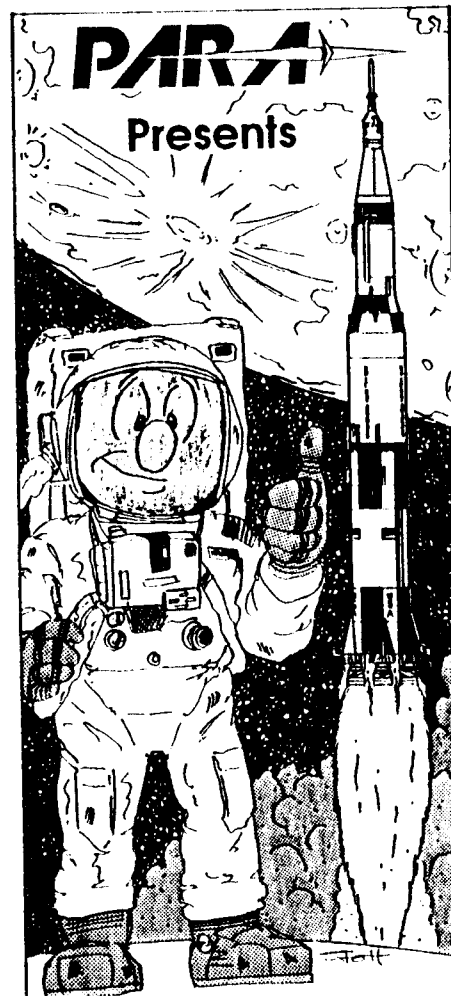
- 1/2A Helicopter Duration
- C Eggloft Altitude
- 1/2A Altitude
- B Rocket Glider Multi
- 1/2A Rocket Glider Multi

Call: Ken Brown, 703-451-2808  
\*\*\*\*\*

**TRIPOLI HIGH POWER LAUNCH**

Culpeper, VA  
May 21 & 22, 1994  
Host: Central VA/Tripoli #25

Call:  
Mike Showalter, 703-547-2539



**PARA**  
Presents

**MARFF-1**  
MID-ATLANTIC  
REGIONAL FUN FLY

**OPERATION:  
PARA-MOON SHOT**

- ★ Scale Launches
- ★ Fun Contests
- ★ Celebrate the 25th Anniversary of Apollo 11
- ★ Waivers!

**July 16-17, 1994**  
**Hatfield, Pa.**

For More Information, write:  
**PHILADELPHIA AREA ROCKETRY ASSOCIATION**  
Information Services  
P.O. Box 206, Richboro, PA 18954

**SPAARSEC - X: A PREVIEW**

Listed elsewhere in this issue, you will find information on our 10th Section Meet, which is coming up on May 27. We hope that this contest will be a little bit different than past Section Meets. Our goal is to have as many members as possible enter the contest, and most of all, **to have fun.**

There will be only four events, and all involve egglofting. They are: **B Eggloft Duration, B Eggloft Altitude, C Eggloft Duration, and C Eggloft Altitude.**

If you have never flown in a model rocketry contest before, this one is for you. Egglofting is challenging, to say the least, but it also provides more than it's share of fun. Egglofting began as a way to simulate the challenge that NASA faces with manned spaceflight, only in this case the astronaut is a hen's egg. You must design, prep, and fly your model with the goal of getting the egg back in one piece! Here's a quick overview of the four events:

**B EGGLOFT DURATION:** Using a B engine, your goals are to attain the longest flight time, and recover the egg intact; remember, you can't catch the model on the way down, either! You get two flights, and the longest time is counted. Use a short delay.

**C EGGLOFT DURATION:** Same as

above, only you use a C engine.

**B & C EGGLOFT ALTITUDE:** A little bit different than the duration events, in that your flight time is not what's important: the altitude is. The altitudes are determined by using the club's two station tracking system. Again, you get two flights if you wish, with the highest altitude being counted. B and C motors with a bit longer delay times are recommended.

General rules to remember:

1. Pad your egg with styrofoam or foam rubber.
2. Pack your chute carefully!!
3. Use tracking powder for altitude events, such as red chalk or dry tempera paint.
4. After the flight, open the egg capsule in the presence of the Contest Director.

**KITS:** A number of "Aero-Owl" kits will be available. This easy-to-build design is what Glenn Feveryear used to set the club C Eggloft Duration record way back in 1988. They will be free to SPAAR members 17 & under, \$5 for adults. Theoretically, you could use this one model to fly all 4 events, and make only 4 flights to complete the contest!

**COME ON OUT MAY 29 AND JOIN THE FUN!! SPORT FLYING WELCOME!!**

**THE SPAAR RECORD BOOK****As Of April 1994**

<b><u>Event</u></b>	<b><u>Name</u></b>	<b><u>Model</u></b>	<b><u>Motor</u></b>	<b><u>Date</u></b>	<b><u>T/A/P</u></b>
<b>A Division</b>					
1/2A PD	Dave Bender		1/2A3-4	11/03/91	44.5s
A PD	Dave Bender	X-3	A3-4	05/05/91	50.9s
B PD	Aaron Newman	Sizzler	B4-6	05/27/90	157.6s
C PD	Eric Marcella			09/03/89	66.4s
D PD	Dave Bender	Gone	D12-7	10/14/90	94.6s
1/2A SD	Dave Bender	X-1	1/2A3-2	05/05/91	22.9s
A SD	Dave Bender			10/09/88	42.6s
B SD	Jas. Wingenroth	Viking	B6-4	10/14/90	40.0s
C SD	Dave Bender	Excalibur	C6-7	12/18/88	39.5s
1/2A RG	Daniel Yost		1/2A3-2	05/26/91	26.4s
B ELD	Derek Yost	2-Minute Egg	B6-2	05/26/91	17.2s
C ELD	Daniel Yost		C5-3	10/09/88	34.1s
1/2A HD	Daniel Yost	Mini RotaRoc	1/2A3-2	09/05/93	26.0s*
A HD	Daniel Yost	Mini RotaRoc	A3-2	09/05/93	33.0s*
B HD	Daniel Yost	RotaRoc	B4-2	09/05/93	71.0s*
C BG	Aaron Newman		C6-3	10/14/90	93.2s
D ALT	Lee Dwyer	Mean Machine	D12-5	07/19/92	166.5m
E ALT	Patrick Boyle	Cheetah	E15-7	07/19/92	276.6m
<b>B Division</b>					
1/2A PD	Bill Rhoat			07/23/89	36.5s
A PD	Bill Rhoat			08/14/88	27.6s
B PD	Bill Rhoat			04/16/89	79.0s
C PD	Dave Wenrich			08/14/88	33.9s
D PD	Bill Rhoat			04/16/89	31.1s
E PD	Bill Rhoat	Onyx	E60-6	11/05/89	22.2s
1/2A SD	Bill Rhoat			07/23/89	36.5s
A SD	Bill Rhoat		A3-4	07/22/90	85.7s
B SD	Bill Rhoat			07/23/89	50.9s
A ALT	Aaron Newman		A8-3	06/30/91	83.2m
B ALT	Aaron Newman		B6-4	06/30/91	110.9m
C ALT	Aaron Newman		C6-5	09/13/92	98.4m

B ELD	Bill Rhoat		B6-2	05/27/90	10.7s
C ELD	Bill Rhoat		C6-3	07/02/89	67.2s
B SRD	Bill Rhoat			07/23/89	832.5p
C HD	Bill Rhoat	Rotaroc	C6-3	05/27/90	61.3s

**C Division**

1/4A BG	Glenn F		1/4A3-4	05/23/92	25.8s
1/2A BG	Glenn F		1/2A3-2	07/23/89	71.5s
A BG	Glenn F	Vulture	A3-2	07/02/89	84.3s
B BG	Glenn F	Fly Baby	B4-2	09/02/90	112.3s
C BG	Fred Hoke	HXP-1	C6-3	05/27/90	83.7s
D BG	John Yost	D-Light	D12-3	09/02/90	67.3s
1/2A HD	Glenn F		1/2A3-4	09/05/93	61.0s*
A HD	Glenn F		A3-4	09/05/93	166.0s*
B HD	Glenn F	Rose-A-Roc	B4-4	09/05/93	139.0s*
C HD	Ed Miller	AeroCopter	C6-3	05/24/92	197.7s@
D HD	John Yost	Yost-A-Roc	D12-3	11/08/92	68.2s
E HD	John Yost	Yost-A-Roc	E15-4	08/12/90	115.0s
1/4A PD	Glenn F		1/4A3-4	05/03/92	41.9s
1/2A PD	Glenn F	Perihelion	1/2A3-4	07/02/89	258s
A PD	George Beever		A3-4	09/02/90	125s
B PD	Dale Greene		B4-6	07/02/89	184.9s
C PD	Dale Greene		C6-7	08/13/89	125.2s
D PD	Ed Miller		D12-5	07/02/89	120s
E PD	Bob Balogh	V-2	E6-4	09/03/89	104.7s
F PD	George Beever	Aerobee-Hi	F25-6	08/12/90	83.4s
G PD	Bob Balogh		G40-7	08/13/89	138.4s
1/4A RG	George Beever		1/4A3-2	05/24/92	16.1s
1/2A RG	Glenn F		1/2A3-2	05/30/93	55.0s*
A RG	Glenn F	Vulture	A3-2	09/01/90	109.8s
B RG	Glenn F	Gull	B4-2	10/30/88	154s
1/4A SD	Glenn F		1/4A3-4	05/03/92	41.9s
1/2A SD	Glenn F		1/2A3-4	09/24/89	94.8s
A SD	George Beever	Perihelion	A3-6	09/15/91	132.3s
B SD	Glenn F		B4-6	08/12/90	168.5s
C SD	Bob Balogh		C6-7	07/22/90	208s
D SD	Dale Greene		D12-7	08/13/89	52.3s
E SD	Ed Miller		E25-10	07/22/90	106s
F SD	Ed Miller		F25-12	07/22/90	138.5s@
G SD	Ed Miller		G25-10	07/22/90	181.6s@
1/2A SRA	Glenn F		1/2A3-4	05/30/93	426pts*



1/2A SRD	Glenn F		1/2A3-2	07/22/90	233pts
A SRD	George Beever		A3-4	05/27/90	415pts@
B SRD	Glenn F		B4-4	07/23/89	486pts
C SRD	Dick Rhoat		C6-3	09/03/89	533pts
A Pay	George Beever		A8-3	07/21/90	61m
B Alt	Alan Rubright		B4-4	09/13/92	184.6m
C Alt	Fred Hoke		C6-3	07/19/92	97.2m
D Alt	Ed Miller		D13-4	05/10/92	173m
E Alt	George Beever	Maxi-Alpha	E18-7	07/19/92	269.9m
F Alt	Roger Dwyer	Sparrowhawk	F50-4	07/19/92	328.9m
G Alt	Ed Miller		G42-4	05/10/92	279.2m
B ELA	Flirtin' W/Disaster		B6-4	05/30/93	68m*
C ELA	Glenn F		C6-5	09/13/92	118.2m
B ELD	Ed Miller	Streamliner		05/26/91	83.8s
C ELD	Glenn F	Aero-Owl	C6-3	10/09/88	156s
D DELA	Glenn F		D21-7	05/24/92	294m

**NOTES ON CLUB RECORDS:**

@ = US Record [NAR]

\* = New Record

**Longest Standing Club Performance Records:**

A Division: 1/2A SD, Derek Yost, & D PD, Daniel Yost, 07/03/88;  
 B Division: A PD, Bill Rhoat, & C PD, Dave Wenrich, 08/14/88;  
 C Division: C ELD, Glenn Feveryear, 10/03/88.

**TO SET A CLUB RECORD:**

A club performance record may be set or broken at any SPAAR Sport Launch or contest. Simply make a notation on your Flight Card that you wish the flight to be considered for a club record. If it is a duration event, it is the flyer's responsibility to see that the flight is timed. Altitude events are obviously restricted to those launches that the club altitude tracking equipment is available.

Please keep in mind that your model doesn't have to be a super high-tech competition model in order for you to set a club record. For that matter, some of the events that we keep performance records for are not recognized NAR events. Some examples are E, F and G Parachute Duration. We do it "just for fun"...which, the last time I checked, was the whole reason for flying rockets anyway! Some of these records are getting pretty old, and are screaming to be broken. Let's take a shot at them in '94!

**RAMTEC-2**  
 (Regional Aerospace Meet To Encourage Competition)  
 NAR Sanction No. 1006-94R

Hosted by **SPAAR #503** - Southern Pennsylvania Area Association of Rocketry.  
**Dates:** Saturday, June 11 and Sunday, June 12  
**Location:** Allentown College in Center Valley, PA.  
 Site of NARAM-18,23,26 and WUBBA 3 thru WUBBA 15.  
**Events:** C SuperRoc Duration, B Eggloft Duration, E Helicopter Duration, A Rocket Glider Duration (multi),  
 Plastic Model Conversion.  
**Awards:** Trophies for 1st place and ribbons for 2nd thru 3rd 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 B Eggloft Duration, which must be flown on Saturday, and Plastic Model, which will be flown only on Sunday. Plastic Model turn in for static judging will be about 1pm on Saturday.

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. No flights over 80ns are allowed.

The attached application should be completed and returned as soon as possible with payment in full, deadline is May 21, 1994. The signature of a parent or guardian is required on the medical release, below, and a separate CB-1-70 (NAR registration form) 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 and CB-1-70. 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 eating facilities will not be available but there are numerous establishments in the area.

Detach and Return

Application for **RAMTEC-2** (Please print clearly)

NAME \_\_\_\_\_ NAR # \_\_\_\_\_ ROOM CHARGE \$ \_\_\_\_\_

ADDRESS \_\_\_\_\_ INDIVIDUAL FEE:

CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_ Under 18 (\$14), 18 yrs old and older (\$18) \$ \_\_\_\_\_

TEAM NAME \_\_\_\_\_ TEAM # \_\_\_\_\_ \* or \*

AGE \_\_\_\_\_ PHONE NO. \_\_\_\_\_ TEAM FEE (\$24) \$ \_\_\_\_\_

Room reservation: \_\_\_\_\_ Fri \_\_\_\_\_ Sat TOTAL ENCLOSED \$ \_\_\_\_\_

\_\_\_\_\_ SINGLE (\$20.50 per night)  
 \_\_\_\_\_ DOUBLE (\$15.50 per night) ROOMMATE PREFERENCE \_\_\_\_\_

MAIL APPLICATION WITH PAYMENT 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: \_\_\_\_\_

THE SOUTHERN PENNSYLVANIA AREA ASSOCIATION OF ROCKETRY

Membership Application

Name \_\_\_\_\_ Address \_\_\_\_\_

Phone \_\_\_\_\_ Age \_\_\_\_\_ Date of Birth \_\_\_\_\_

NAR # \_\_\_\_\_ Tripoli # \_\_\_\_\_

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

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

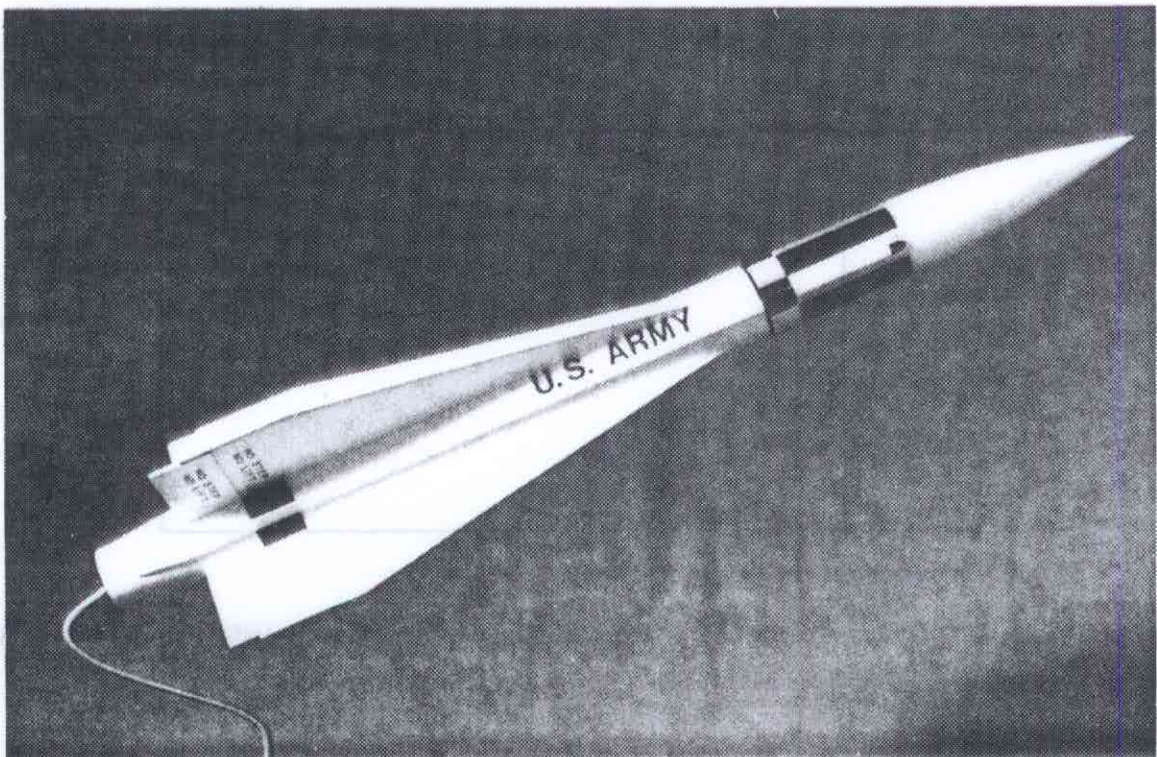
15,16,17 years of age: \$7 per year.

16 and under: \$5 per year

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

Return this form to: SPAAR, PO Box 127, Reamstown, PA 17567.  
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THE LAUNCH PAD "HAWK"

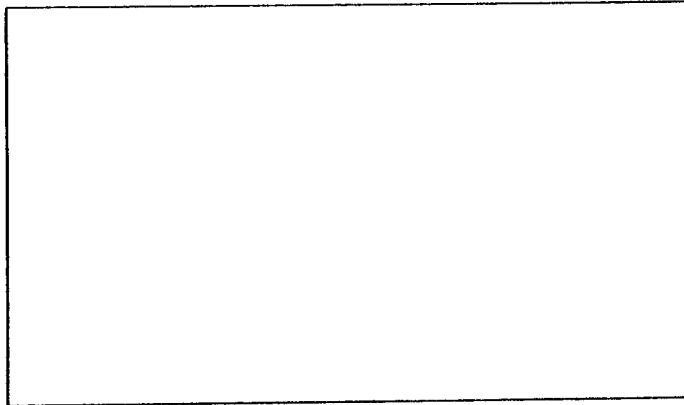
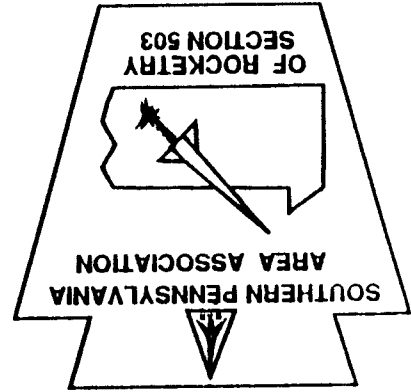


# COUNTDOWN

*The Southern Pennsylvania Area  
Association of Rocketry*



**SOUTHERN PENNSYLVANIA  
AREA ASSOCIATION  
OF ROCKETRY**  
**PROMOTING SAFE MODEL ROCKETRY  
IN SOUTHERN PENNSYLVANIA  
AND NORTHERN MARYLAND**



**TO:**

**SPAAR  
P.O. Box 127  
Reamstown, PA. 17567**