

# COUNTDOWN

OFFICIAL NEWSLETTER OF  
THE SOUTHERN PENNSYLVANIA AREA ASSOCIATION OF ROCKETRY

VOLUME 6, ISSUE 3 / MAY-JUNE 1993

## IN THIS ISSUE:

- \* CULPEPER LAUNCH
- \* ESTES/QVC DEMO
- \* REGULAR FEATURES



The Countdown

Volume 6, Issue 3

May/June 1993

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 & Ed Miller.**

On the cover: Ed Miller with his Bandit 3X & an Astrocam liftoff.  
See related stories in this issue.

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**CONTENTS**

Section Meetings	pg 3
SPAAR Sport Launches	pg 4
Flight Logs	pg 5,6
The Culpeper HPR Launch	pg 7,8
The Estes/QVC Demo Launch	pg 11,12
Competition News	pg 15
Club & Manufacturer News	pg 16
Project Saturn 1B, part 2	pg 17,18

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**SCHEDULE**

**SAT/SUN JUNE 12 & 13: RAMTEC-1 REGIONAL MEET, CENTER VALLEY, PA.**  
EVENTS: B HD MULTI, B RG, 1/2A SD MULTI, 1/2A PD MULTI, D DUAL  
EGGLOFT DURATION, A B/G.

**SUNDAY JUNE 20: SPORT LAUNCH, 1-5PM, COCALICO HS, DENVER; MEETING,  
5-7PM AT GEORGE BEEVER'S HOUSE.**

**\*\*\* PATRIOT & SCUD DAY \*\*\***

**SUNDAY JULY 11: MEETING AT ART BABIARZ', 1-3PM; SPORT LAUNCH,  
SCHUYKILL VALLEY SCHOOL, 3-7PM.**

**SUNDAY AUGUST 14: MEETING AT DICK RHOAT'S, 1-3PM; SPORT LAUNCH,  
COCALICO HS, DENVER, 3-7PM.**

## SECTION MEETINGS

April 18, 1993

**Present:** Glenn & Rita Feveryear; Bill Rhoat, Dick Rhoat, Dale Greene, George Beever.

**Treasurer:** Report unavailable.

**Newsletter:** George Beever handed out copies of the March/April Countdown to those present; reported that 55 copies were made, and that about half of the copying had been done professionally.

**Section Advisor:** George Beever reported on a phone conversation he'd had recently with Tom Lyon, CD for NARAM-35.

**Competition:** Glenn Feveryear reported on preparations for RAMTEC-1, and passed out registration forms to those members present. Urged any and all SPAAR members, whether they plan to compete or not, to help out with RAMTEC.

**High Power:** Report unavailable.

**Old Business:** None discussed.

**New Business:** A schedule change was requested, to change the May 8 Sport Launch to May 16. Those present voted to approve this. Also, the June 20 Sport Launch will be from 1PM to 5PM, with the monthly business meeting at George Beever's house after the launch, from 5PM to 7PM.

May 16, 1993

**Present:** Dale Greene, Ed Miller, Glenn & Daniel Feveryear, Bill & Dick Rhoat, Rick Hackman, George Beever.

**Treasurer:** Ed Miller reported that there are 34 current members; the balance at the end of the last meeting was \$224.08. Outlays include \$120 in RAMTEC expenses; \$250 for auction payouts; incomes were \$66.75 from the auction. Balance: \$168.33.

**Newsletter:** No report.

**Section Advisor:** George Beever asked for volunteers for the May 23 Cub Scout demo in MD.

**Competition:** Glenn Feveryear stated that he may have located an alternate launch site for the spring and fall. It is located off of Rt. 1 in MD, just south of Belair. He will check on it further.

**High Power:** Ed Miller stated that the May 22/23 HPR Launch in Culpeper will have a 15,000' FAA waiver; he will attempt to get a waiver for the day of SPAARSEC-9, Sept. 5. Also, reported on a "verbal agreement" reached between Aerotech and DOT, which will allow the shipment of Class C reloads.

**Old Business:** None discussed.

**New Business:** None discussed.

## SPAAR SPORT LAUNCHES

April 18, 1993

After a long, cold winter, it was nice to finally get out and do some flying. Unfortunately, only 7 flyers made it out to take advantage of the opportunity.

Dale Greene found out what we all suspected: Ed Miller builds 'em both tough and heavy. At our recent auction, Dale bought Ed's Estes Magnum. He brought it out to fly, but because of the breeze, decided to fly the upper stage only, with a B4-4. Normally, this would be OK. Notice the qualifier. With this version, the 4-second delay proved to be too much, and the model nosed over and hit the ground just in time for the ejection charge to retro-fire the airframe upwards. Damage? Nah... remember, Ed built this one. Dale later flew it on a C6-3, for a perfect flight.

April 18 might have been called "The Rick Hackman Air Show"; all told, Rick got in 13 flights. Rick opened up the vault to pull out some oldies, too. One of the better flights was a two-stage UFO/Birdie combination. Worked well, too. Unfortunately, the venerable XR-55 WWII fighter suffered some damage upon landing, which left Rick talking about a new, improved, "D" powered version. [Really Rick, I have those plans around here somewhere...] Renee Feveryear flew a pretty Estes Rainmaker, and brother Danial got 74s out of a Bandit!

May 16, 1993

May 16 was Cluster Day. Needless to say, even though only 27 flights were logged, we used up about 50 motors! Not too shabby. Even a 1 hour rain shower between 2 & 3PM didn't stop us.

In all, 9 Cluster Day flights were made. They included Ed's Armacron IV with 4 D12s; the Armacron III with 3 C6-7s; and an incredibly modified Super Big Bertha, which lifted off with a cluster of 3 D12s, which then drop off after igniting a D12 sustainer. This model has flown with an E15 sustainer, too. Fantastic! Your editor flew an Estes Cobra clone and a Custom Landviper on B6s; and an Estes Maxi-Force on 3 D12s. The model flew great, and the 'chute had no damage. [OK, I admit it; I forgot to put in wadding]

Glenn Feveryear set a new club 1/2A HD record with a 46.58s flight using a modified Rose-A-Roc, piston launched out of a tower. Rick and John UFO'd all over the place; Bill Rhoat flew and then retired a nice Estes Blackhawk; and little Danial Feveryear flew his Bandit once again.

Ed Miller also flew an immaculate Maxi-Alpha rebuild on an Aerotech E18 24mm RMS. After a beautiful flight, it was also "retired". This was fun; come on out and see what you've been missing!

FLIGHT LOG

April 18, 1993

<u>FL#</u>	<u>NAME</u>	<u>MODEL</u>	<u>MANUF.</u>	<u>MOTOR(S)</u>	<u>RESULTS</u>
1	Dan'l F	Bandit	Estes	E B6-4	GF-74s
2	Renee F	Rainmaker	Estes	E B4-4	GF-34s
3	Glenn F	1/4A BG	SB	AP 1/4A4-2	GF-12s
4	Glenn F	1/4A BG	SB	E 1/2A3-2	GF-62.5s
5	Dale G	Magnum	Estes	E B4-4	NMM**
6	Dale G	Magnum	Estes	E C6-3	Good Flight
7	Dale G	Nike-Smoke	Quest	E B4-4	Good Flight
8	Dale G	Skinny Pink Th	SB	AT E25-4T	Good Flight
9	Rick H	Birdie	SB	E 1/2A3-2	Good Flight
10	Rick H	XR-12MU	SB	E B6-4	Good Flight
11	Rick H	XR-14	SB	E A8-3	Good Flight
12	Rick H	XR-15	SB	E A8-3	Good Flight
13	Rick H	XR-16	SB	E 1/2A6-2	NMM**
14	Rick H	XR-18	SB	E A3-4	Good Flight
15	Rick H	XR-32	SB	E 1/2A3-2	GF-8.5s
16	Rick H	XR-49	SB	E B6-4	Good Flight
17	Rick H	XR-55	SB	E C6-3	Good Flight
18	Rick H	XR-63	SB	E A3-4	Good Flight
19	Rick H	UFO-24	EM^	E D12-0	Good Flight
20	Rick H	UFO/Birdie	EM^	E D12-0/1/2A3-2	Good Flight
21	Rick H	XR-63	SB	E A10-3	Good Flight
22	Bill R	Sentinel	Estes	E C6-5	GF-48.4s
23	Bill R	Little Joe II	Estes	E A3-4	CHU
24	Bill R	Hornet	Estes	E B6-4	Good Flight
25	George B	Easy Slide II	QCR	E B4-2	<b>PRANG!!!!</b>
26	George B	AGM-78	MRC	E C6-3	GF-75.7s
27	George B	AGM-78	MRC	E B4-2	Good Flight
28	George B	IRIS	Estes	E A3-4	Good Flight
29	George B	Patriot	Estes	E B4-4	Good Flight
30	George B	Sizzler	Estes	E C6-7	Good Flight

NMM\*\* = Needs More Motor

EM^ = Ed Miller kit

Total Number of Motors Fired: 31

Estes: 29    Estes/Apogee: 1    Aerotech Single Use: 1

Kits Flown: 13    Scratchbuilt Models Flown: 12

Estes: 9    MRC: 1    QCR: 1    Quest: 1

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May 16, 1993

1	Dan'l F	Bandit	Estes	E 1/2A6-2	GF-7.8s
2	Bill R	Blackhawk	Estes	E B6-4	Good Flight
3	John Y	UFO-24	EM^	AT E15-4	Good Flight
4	John Y	UFO-24	EM^	E D12-3	Good Flight
5	Rick H	XR-18	SB	E A10-3	Good Flight
6	Rick H	XR-44	SB	E A10-3	CHU
7	Rick H	XR-63	SB	E A3-4[1], 1/2A3-2[3]	Cluster Day
8	Rick H	UFO+	EM^	E D12-0/1/2A3-2	Good Flight
9	Glenn F	1/2A HD	SB	E 1/2A3-4	GF-46.58s*
10	Glenn F	Vulture RG	SB	E 1/2A3-2	Good Flight
11	Glenn F	Vulture RG	SB	E 1/2A3-2	Good Flight
12	Glenn F	Malibu-B RG	SB	E B4-2	GF-46.3s
13	Glenn F	Malibu-B RG	SB	E B4-4	Prang
14	Ed M	UFO-29	EM^	AT E15-4/E C5-3[4]	Cluster Day
15	Ed M	Armacron III	SB	E C6-7[3]	Cluster Day
16	Ed M	2-Stage Super Bertha	Estes	E D12-0[3]/D12-3	Cluster Day
17	Ed M	Slug	SB	AT G80-4T	Good Flight
18	Ed M	Armacron IV	SB	E D12-5[4]	Cluster Day
19	Ed M	Warp II	Estes	E C6-0/B8-5	Good Flight
20	Ed M	Maxi-Alpha	SB	AT E18-4WL RMS	Good Flight
21	Ed M	Azinon	SB	AT F40-4WL RMS	Good Flight
22	George B	Cobra	SB	E B6-6[3]	Cluster Day
23	George B	Landviper	Custom	E B6-6[3]	Cluster Day
24	George B	Maxi-Force	Estes	E D12-7[3]	Cluster Day
25	George B	Starburst	LOC	E D12-5[2]	Cluster Day
26	George B	Thermal Hawk	MRC	E B4-2	GF-45.7s
27	George B	Thermal Hawk	MRC	E A8-3	GF-23.3s

\* = New Club Record for 1/2A HD; old record: 42.7s, John Yost, 12/4/88, using a scratchbuilt Mini RotaRoc.

Total Number of Motors Fired: 50  
 Estes: 45    Aerotech SU: 3    RMS: 2  
 [45 Black Powder, 5 Composite]

Number of Kits Flown: 10    Scratchbuilt Models Flown: 14  
 Estes: 5    MRC: 1    Custom Rocket Co.: 1    Ed Miller: 2    LOC: 1

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**THANKS AGAIN, DICK & DONNA!**: Once again, Dick Rhoat and Donna Shrom have opened their home up to the club on short notice. The April 18 meeting was held there, as scheduled. At that time, it was determined that the Ephrata Nazarene Church would not be available for the May 16 meeting, so Dick and Donna filled the breach once again by offering the use of their home for that meeting, also. All of this on the day after a college graduation party the day before!

From all of us, a big "THANK YOU!!!!"

## High Power Rocketry:

### TRIPOLI HPR LAUNCH

APRIL 17-18 1993, CULPEPER, VA.

by Ed Miller

After missing the November launch due to my uncertainty about the weather, I was determined to make the April launch no matter what the weather. The forecast called for good weather Saturday and great weather Sunday. I packed my rockets and support equipment on Friday night, and left home at 4:00AM on Saturday. The 4 1/2 hour drive was uneventful. During the drive the sun rose and I saw complete cloud cover. While passing through Maryland it rained twice. Come on weatherman, don't let me down. By the time I reached Virginia the sky was clear.

I arrived at the launch field at about 8:30AM. Only two people arrived before I did. Mike Showalter, Tripoli Prefect; and Craig Smith. A short time later Roger Dwyer showed up. Roger and I helped Mike and Craig set up as the rest of the flyers arrived. Total turn out was about 25 flyers.

The launch started with the flight of a few smaller rockets. The author flew his G powered UFO for a good noisy flight. Roger Dwyer loaded up his Viper IV with D engines for a great flight. Sonny Thompson launched a large rocket with an

I211. Another flyer launched a Laser/LOC with J415 for an out of sight, mile high flight. The author launched his Armacron IV with four E15 motors. Only three lit and the launch rod whipped because of the unbalanced thrust. The Armacron took a ballistic trajectory out over the field and ejected the chute less than 10 feet above ground zero. Thank goodness for the heavy rains Friday night. The launch field was a quagmire and the Armacron survived undamaged. Roger Dwyer then launched his Falcon with an H100-10SS for a good flight. Ken Allen from Washington DC Tripoli confirmed by putting an H70-10 in a Cox Saturn V [! - **Editor**]. That Saturn V nearly went out of sight, and was recovered about half a mile away. The author then launched his Hyperon with 3 F25-9 motors. Only 2 lit and we had another ballistic flight. This time the chute ejected about 300' up. The rocket was recovered undamaged. Sonny Thompson then launched an 8" diameter model. The J415 lit at the bottom of the core, and the rocket took a slow, ballistic trajectory over the launch field and was totally destroyed on impact.

Doug Pratt was present and he flew two rockets with R/C chute

deployment. Both turned in perfect flights. Later in the day he flew an NCR Avatar and an Aerotech Phoenix. He demolished both. Many notable flights were turned in on Saturday.

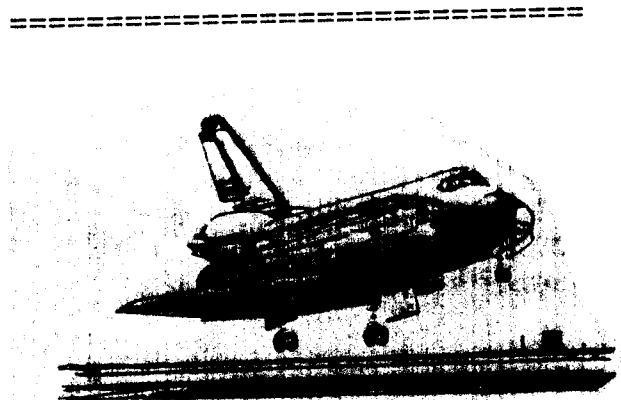
After the launch on Saturday, the author checked into the motel and ran into Karl Fehrenbach and his wife. Many of the patrons of the motel were in Civil War uniforms. There was a reenactment in a nearby town the same weekend.

Sunday was clear and calm. The author launched his ASAT-21X Plus with R/C main chute deployment. The ASAT lifted off under the power of an H238-14, then four air-started G42s for a very nice flight. At apogee the core motor ejected an X-30 drogue chute for a very fast descent. At about 200' the R/C was activated and the main 60" chute was deployed. The model was only 500' away when it landed. Roger Dwyer assisted in the recovery. Craig Smith flew his SLN with an H180 and four air started Gs. It landed in "No Man's Land" [I'm familiar with that! - Editor] but was recovered without incident because the land owner must have been distracted. Karl Fehrenbach flew his THOY Robin with an E15 then an E30 for two nice flights. Karl also flew his Tank Shell with an F50-9 and a scratchbuilt Standard Arm with an F14 for two more good flights.

During the Saturday launch the author observed a few G160 Silver Streak motors [RocketFlight] being flown.

They were very impressive. The author decided to buy one on Sunday and discovered that the new black powder H220 Silver Streaks were for sale. He elected to buy an H. The big H was loaded into the Workshop Falcon. Let me tell you, those black powder H motors have some power. Imagine a cluster of 10 FSI F100s and you are very close. The Falcon moved like a bullet and was recovered undamaged. Rob Creamer launched a LOC Ultimate with 3 F50 motors for a very impressive flight. Hank Holzgreffe launched a THOY Falcon with a J100 with an Adept Altimeter for a flight of 4837'. The Adept Altimeter also had a main chute deployment feature set at 250'. The Falcon turned in a perfect flight. Hank also launched an 8" diameter rocket made of PML tubing. This was only a test flight and only a J800 was used. The Adept Altimeter deployed the main chute at low altitude. The landing was less than perfect. The rocket broke in half when it landed in a tree. The tree paid the penalty by losing a large branch.

The author finished his weekend by launching the Bandit with an I357 for a "hard" flight.





PHOTOS FROM THE CULPEPER HPR LAUNCH  
COURTESY OF ED MILLER

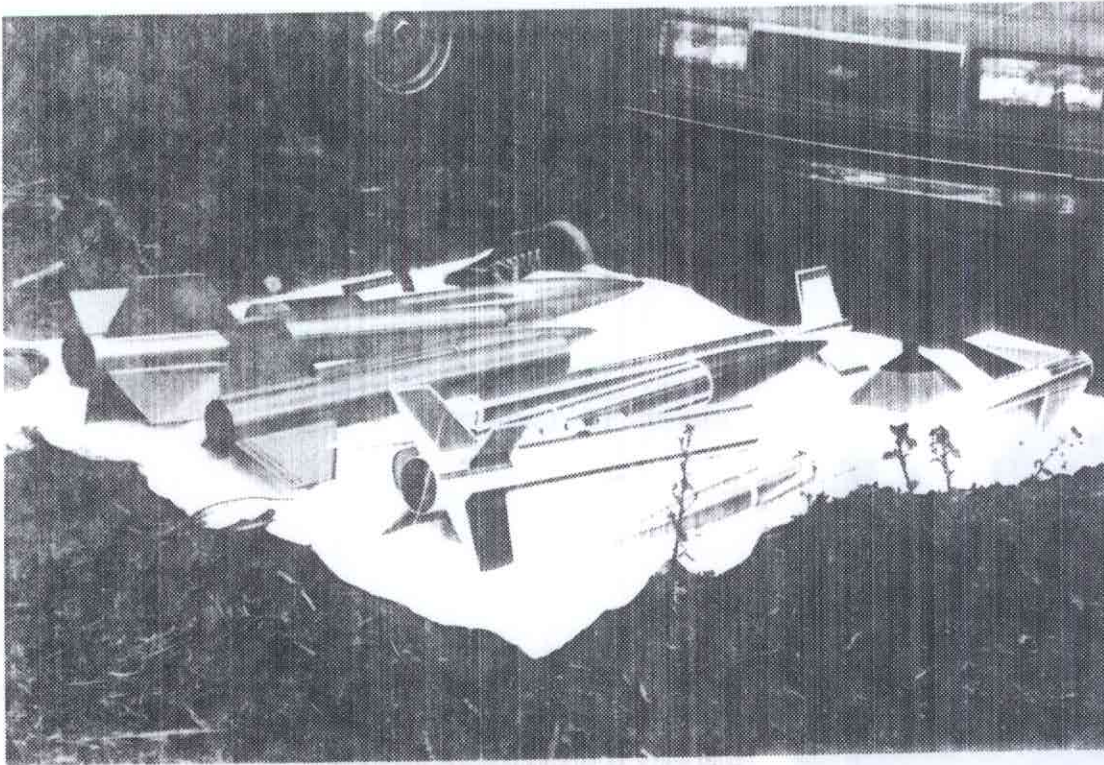


LEFT: ED MILLER AND HIS ASAT-21X  
PRIOR TO LAUNCH



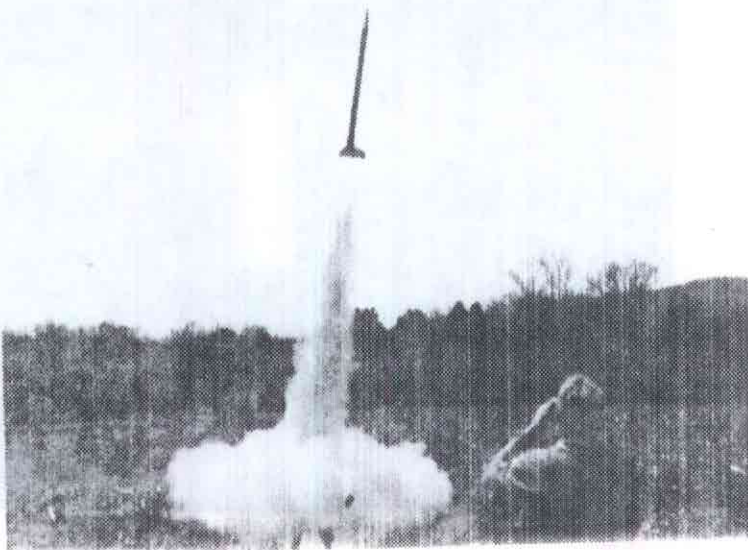
RIGHT: ROGER DWYER AND HIS LOC  
VIPER IV AT CULPEPER





TOP LEFT: SOME OF ED'S ROCKETS WAITING TO FLY

BELOW: CRAIG SMITH'S "SLN" LIFTS OFF WITH AN H180-10W MOTOR



### THE ESTES QVC DEMO

When I walked in the door from work in the afternoon of Thursday, April 29, my wife rather off-handedly said, "oh by the way, Mary Roberts from Estes called. She left a number for you to return her call." Mary Roberts from Estes? Of course I knew who she was, but what in the world did she want me for? I was dying of curiosity as I returned the call...

Mary began by saying that she understood that I was active in model rocketry through the Southern Pennsylvania Area Association of Rocketry, and that this had come to her from Art Nestor, of the NAR's Pittsburgh Space Command Section. Could I possibly help them [Estes] out with a project? [Was I really going to say "no"?] Here's the story: Estes and the QVC Network, a shop-at-home cable channel, had been negotiating a deal in which QVC would market a special package that would include the new Astrocam 110. However, the QVC Quality Control Department wanted to see this product in action. A demo, if you will. Could I go to the QVC corporate offices in West Chester, PA. on Monday, May 3, and demonstrate the Astrocam and its launch system? It took about a millisecond to say "yes", no problem. Well, almost no problem. It was Thursday; the demo was to be the following Monday morning, 4 days away. I didn't have an Astrocam, which is a drawback in a situation

like this. Oh, that's not a problem, she said. Federal Express! Two Astrocams will be at your door Saturday morning. Mary then gave me some names and phone numbers, one of whom was Bob Machol, Estes' East Coast sales rep, who would be our contact person.

Talk about a bolt out of the blue! When I put the phone down, I said to my wife, "you're not going to believe this one..." As it happens, my wife graduated from West Chester University and knew the area well, so navigation wouldn't be a problem. Our son Mark would really get a charge out of going. Grammy can keep the baby. But what about some help? A second person is always good to have for things like this. Hey John Yost, ya wanna go to West Chester on Monday?

The Astrocams arrived on Saturday morning, as promised. I put the camera portion together Saturday night between 10 and 11, and the booster together in an hour Sunday afternoon. Much easier than the original version, I must add. I packed up everything Sunday night. Motors, wadding, ignitors, film, launch system, the works. As it turned out, we didn't need any of that stuff, but there's that thing about Murphy's law...

We were supposed to meet Bob at 9:30AM at QVC. As we were approaching West Chester, all of us were keeping our eyes open for a place to fly the

Astrocams. This was on such short notice that we had no idea just where we'd fly the model. But as fate would have it, as we entered the corporate park where QVC was located, we saw the answer: right in the middle of all of these office buildings was a softball field, just right for what we needed! As we pulled into the parking lot, we parked in the only available space, next to a new Lincoln with a New York vanity tag: TOY SAILS. Has to be Bob Machol. It was. We met Bob in the QVC lobby. He was very friendly and upbeat about the planned launch. He told us that he had all of the equipment we'd need: the Port-a-Pad, motors, wadding, ignitors, everything. After a few phone calls to the QVC folks, we went out to the field.

Bob produced a brand new E2X Launch Controller for our use. John and I put the pad together, and he checked out the controller. We had decided to fly Mark's Estes America before the Astrocams, simply to check out the direction of the breeze, as well as the new launch system.

Bob and the QVC people soon joined us. There were three of them: the one fellow that we had to impress, as well as two guys from their videotape department, who were going to tape the morning's activities. They had a rather serious looking video camera, as well as some audio gear. This was going to be interesting.

We got everything set up, and put the America on the pad,

loaded with an A8-3. After we explained what we were doing and why, Mark gave the countdown, and off the America went... only to return via a tangled 'chute. Nice packing job, Beev. It wasn't the launch system that needed to be tested...

The first Astrocams flight was almost the last. I saw that the camera portion came away from the body upon burnout, as the body slowed and inertia kept the camera going. Great. A sky shot. Then the 'chute refused to deploy at first. When it did finally open, I could hear John say, "Didn't you powder the 'chute?" Obviously not. I will now. And a little masking tape fixed the other problem. As we prepped Flight #2, we noticed that the Quality Control guy had apparently seen all that he wanted to see, since he was walking towards the office. I wasn't sure if this was good or not.

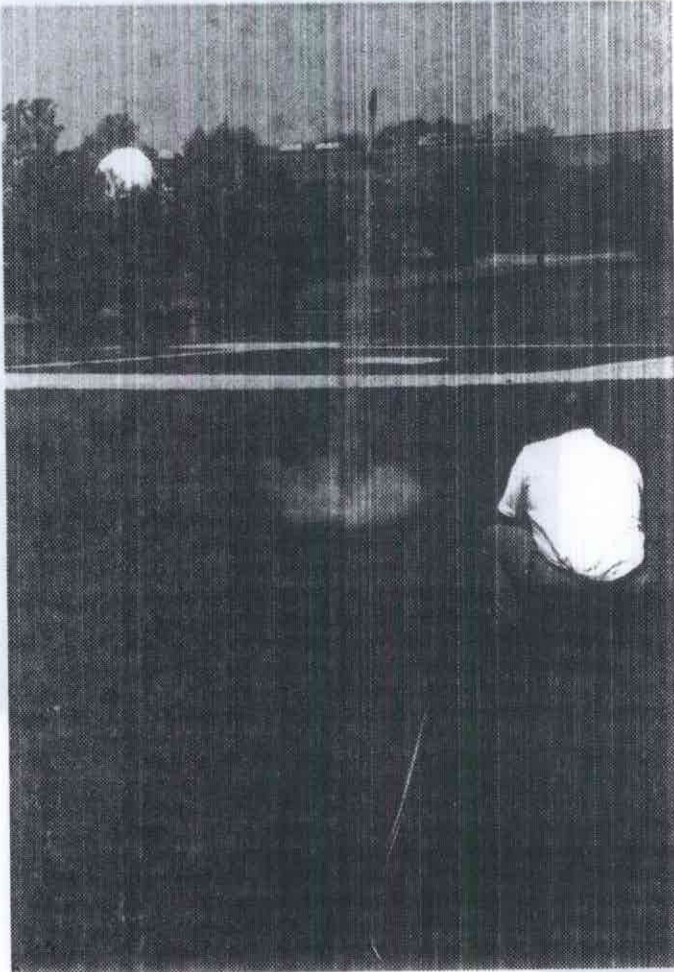
Flights 2 and 3 were picture perfect, if you'll excuse the pun. The only problem was a broken launch lug after the third flight, which ended the flying. [I'd brought along everything but launch lugs!] The QVC video guys thought the whole thing was neat; however, you could tell that they were way behind the models in flight. Maybe we should lend them the footage that John shot.

It was all over by 10:30. We gave the film to QVC, asked for prints, and were treated to an early Christmas from Bob's trunk. Being a toy salesman, he

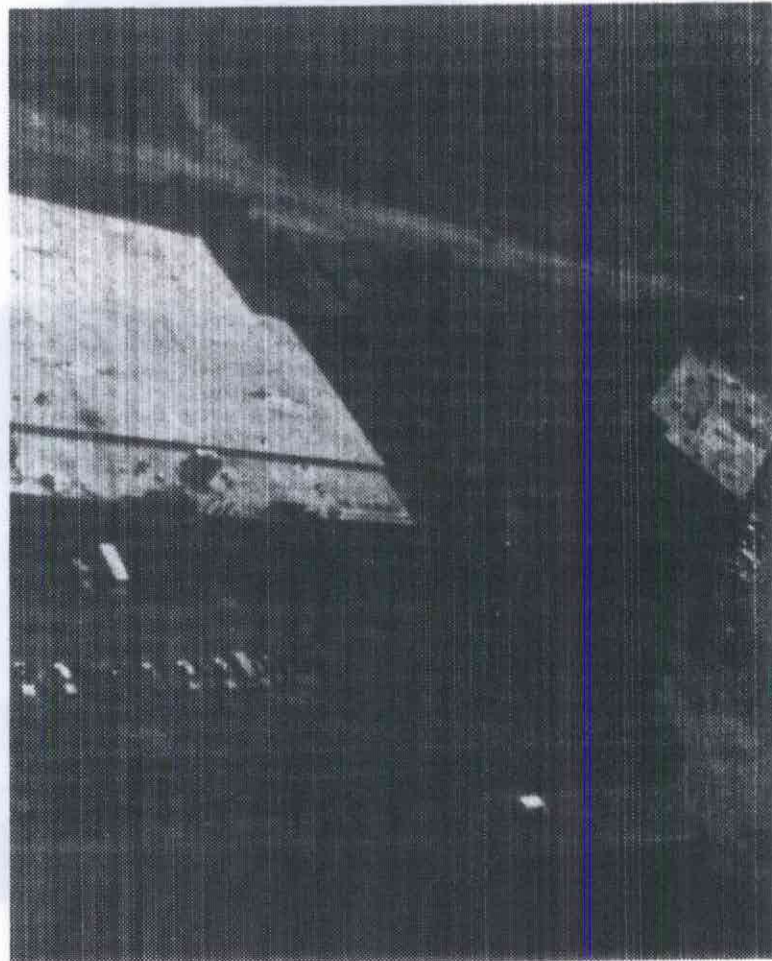


had a trunk load of samples. Mark ended up with 2 kites, 15 miles of string, a yo-yo or two, and a kazoo. We were thanking Bob for the kazoo all the way home. All in all, it was a lot of fun. We were treated well by all concerned, and Estes and Bob really made it worth our while to go.

On Friday, May 7, I received copies of the Astrocam photos in the mail from QVC. I had been right; only 2 pictures came out, but they were very good, and hopefully they impressed QVC.



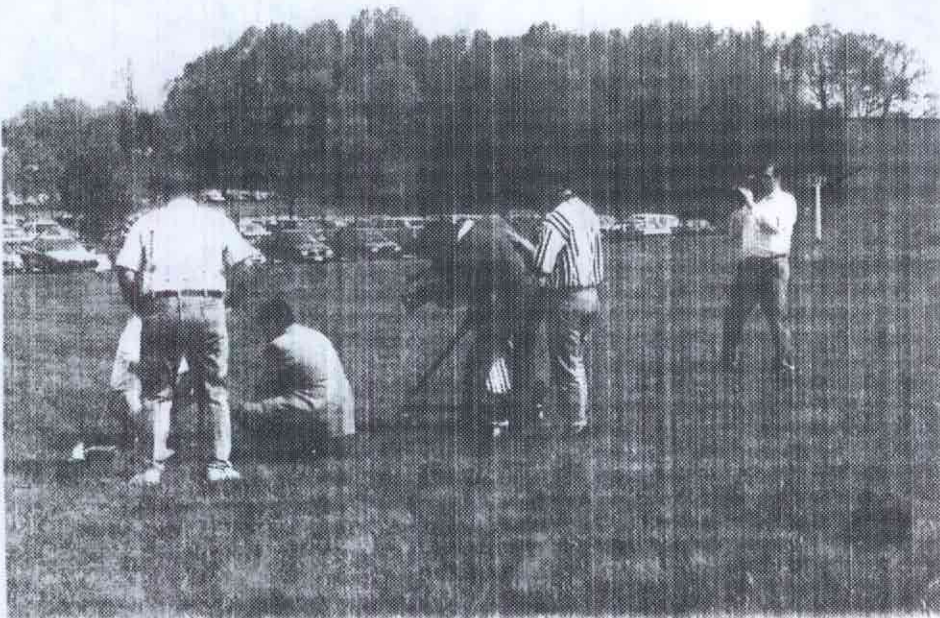
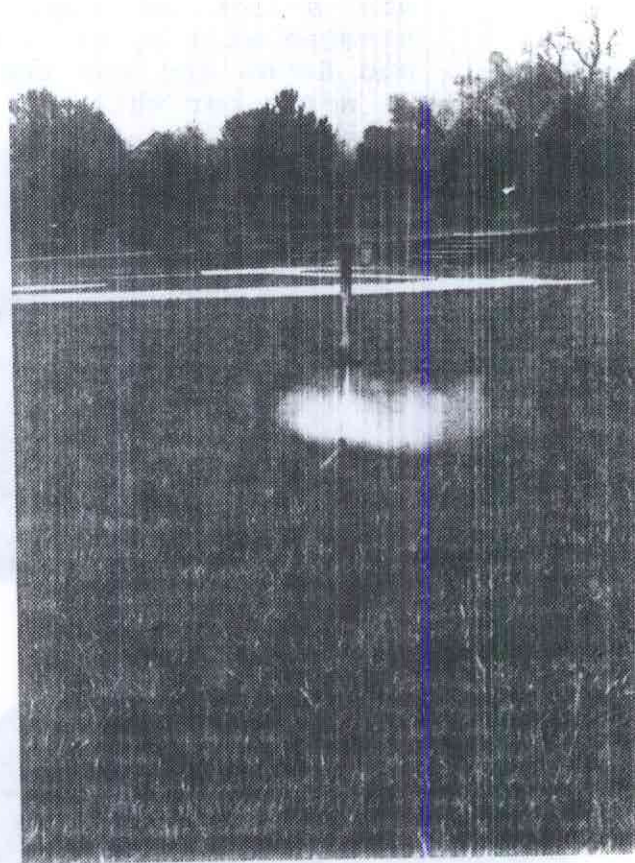
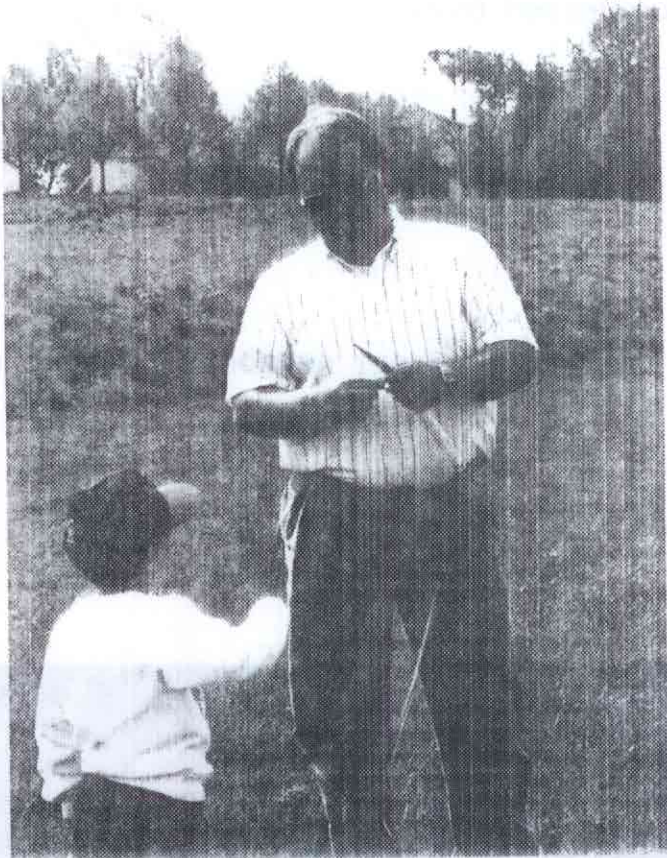
LEFT: THE FIRST ASTROCAM FLIGHT LIFTS OFF



RIGHT: THE PHOTO TAKEN ON THE SECOND FLIGHT



PHOTOS FROM THE QVC DEMO  
ALL PHOTOS BY TERESA BEEVER



CLOCKWISE: GEORGE AND MARK PREP THE "AMERICA"; FLIGHT #3 LIFTS OFF; JOHN YOST VIDEOS THE PROCEEDINGS.



**COMPETITION NEWS:****NAR STANDINGS AS OF 3/15/93****C DIVISION**

PL	NAME	SECTION	POINTS	WF
1	Glenn Feveryear	SPAAR	2,106	7
2	Tom Whymark	GSSS	1,166	6
3	Jules Distel	GSSS	1,112	6
4	Ken Mizoi		1,026	3
5	Bruce Kilby	FSM	1,024	5
6	John DeMar	SRB	930	4
7	Randy Gussetto	FSM	904	5
8	Bruce Canino	GSSS	794	6
9	William Dauphin	FSM	735	5
10	Robert Zabriskie	GSSS	640	4
26	John Yost	SPAAR	219	1
38	Gary Feveryear	SPAAR	144	1
40	George Beever	SPAAR	137	1
49	Dale Greene	SPAAR	66	1
59	William Rhoat	SPAAR	23	1

**TEAM DIVISION**

1	Lee-Purcell Team	Vikings	814	4
2	Hot & Cold Team	SSS	555	3
3	Scotty-Chekov Team	NOVAAR	412	2
4	Flirtin' With Disaster	SPAAR	216	2

**SECTIONS**

1	Garden State Spacemodeling Society [GSSS]	11,250	6
2	Florida Spacemodelers [FSM]	4,504	6
3	NARHAMS	3,824	4
4	NOVAAR	3,244	4
5	SPAAR	2,911	7
6	MARS	1,609	4
7	PARA	975	3
8	LARS	860	3
9	Vikings Rocket Society	820	4
10	DART	727	3
11	Pittsburgh Space Command	562	1
12	Superstition Spacemodeling Society [SSS]	555	3
13	CMASS	354	3

## SECTION & NATIONAL NEWS

**ESTES INDUSTRIES:** Mike Hellmund advises us that the new 24mm black powder E motors were recently classed as "1.3C" by the Department of Transportation, and are currently undergoing NAR certification. Estes is hoping that they can hit the market by the end of June.

A number of kits are being discontinued. Heading the list is the relatively new 1/100-scale Saturn 1B. However, Hellmund speculated that the kit may return in the future.

**AEROTECH:** The folks at Aerotech wish to dispel the rumors of their imminent demise. They say that they are "doing fine", and shipping product just as fast as it can be made.

The big news is that, following an agreement with the DOT, the Class C [Model Rocket] reloads are now shipping on a "limited basis". Consumers are advised to call either their local dealer or Aerotech directly at [702] 641-2301 for shipping information. In addition, the "non-standard" motors such as the E6, F10, and G42 will be available through Apogee Components.

**HEY, DIDN'T YOU USED TO BE ROGER DWYER?:** The latest intelligence reports on the activities of Roger Dwyer are coming in, and are somewhat difficult to analyze. First, we hear that he was at the Tripoli HPR launch in his hometown of Culpeper in April. This sounds believable, considering the fact the Roger did move back home in January. Then, we have sightings of Roger at a NOVAAR contest on May 8, in Manassas. He was reportedly following Ken Brown all over the place, buying up all of the QCR kits he could find; then, he was entering various events and doing very well, flying for NOVAAR. [Hey, wait a minute; isn't his SPAAR membership still in effect?] So Roger, how about clearing up the mystery?

**YOUR ONE STOP ROCKET SHOP:** Ed Miller now has access to the Aerotech, Estes, FSI and Custom Rocket product lines, as well as various items such as epoxy and handi-wipes. Contact Ed at [717] 865-6829 for more details.

**NARAM-35:** Take advantage of it now, folks. NARAM-35 will be held during the week of August 1 - 7 in Middletown, MD. The NARHAMS Section will be the host. It may be a while until the Nationals are held this close again. The events are: B HD[M], 1/2A PD[M], 1/2A SD[M], A Payload, B RG, C SRA, D Dual Eggloft Duration, Sport Scale, 1/2A X 3 Cluster Altitude, and Research & Development. Sport flying welcome. Manufacturer's demos, seminars, etc. Contact:

**Tom Lyon, PO Box 1746, Prince Frederick, MD 20678**  
**Phone: 301-855-9457**

**Building the Beast...****PROJECT SATURN 1B**

## Part 2

Where were we? Oh yea. In the summer of '90, Art Babiarz started bringing some of his scratchbuilt sport scale models to our sport launches. By his own admission, they were not perfect; but, there was only one person who he had to please, right?

In the fall of '90, I happened to be talking on the phone with Bob Stott of the Philadelphia Area Rocketry Association, PARA. Bob enjoys hunting down, building, and flying old Estes and Centuri kits. I figured he might know where I might get my hands on a copy of the kit instructions for the old Estes 1/70-scale Saturn 1B. I had planned to use this as a basis for my project. He told me that he had one of the old kits, complete with instructions. Could I get a copy? Sure, no problem. However, if you really want to get into a project like this, the person you want to contact is Peter Alway in Michigan, he said. Bob said that Peter was a Saturn 1B enthusiast, and might be able to provide some ideas on building a Saturn 1B. Thanks for the tip!

In a week or two, Bob's copies arrived in the mail. Not only did he copy the kit instructions, but also the decal and pattern sheets that came with it. A real treasure trove of information.

I then sat down to write my letter to Peter Alway. His book, **Scale Model Rocketry**, had just been published, so I knew that this fellow must really know what he's talking about. Would he even bother to answer my letter? Why should he bother?

My apprehensions were groundless, as it turned out. Peter graciously sent me a huge package of information on building a 1/70-scale Saturn, based on the old Estes kit. He included so many hints, tips, and suggestions that even I started to believe that I could actually get this done! Not only that, but I got the real sense that here was a rocket modeler who really enjoyed his craft, and was willing to share with others. [Some refer to this as "networking"] After an exchange of a few letters, I asked Peter what I could do for him in return. At the time, he was trying to replicate the old Estes Honest John kit from the 60's and 70's, but he couldn't come up with the dimensions for the balsa nose cone. Could I be of any help here? No problem. I happen to have one of those old kits; I had obtained it through an auction in 1987. So, instead of trying to measure the thing, I simply sent him the whole kit, "magic dust" and all, so that he could measure it first hand. Once he had his measurements, he sent the kit

back. Considering all of the information that came my way, this was certainly a fair trade-off.

That same winter, while all of this was going on, Art Babiarez presented a workshop on Scale Modeling Techniques. Art's background and primary area of interest is the plastic modeling of helicopters. Many of the techniques that he uses in this field are used in all scale modeling. The man knows what he's talking about. Like Always, Art stressed one point: build to please yourself. If you are able to reproduce the smallest detail, fine and dandy; if you can't, but like the finished product and had fun getting there, you've accomplished your goal. After all, this is a hobby that's supposed to be relaxing....

Art's seminar also went into the area of fabricating parts for your project that cannot be obtained from suppliers. To stress his point, he poured molds of the 1/100-scale Apollo capsule that he'd used on his Saturn 1B, as well as the Gemini capsule that he'd made for his 1/24-scale model. I obtained two of these. I wanted to scratchbuild a Gemini-Titan before tackling the Saturn. I still didn't trust myself. I didn't want to get half way into my project, get stuck, get frustrated, and give up.

While I corresponded with Peter Always, I built the Gemini-Titan. I got a real charge out

of that project. Each time that I came upon a problem, solving it by kicking around different ideas was a lot of fun! To many this may not exactly be a revelation; I suppose it's just all part of modeling. But when you're used to building from a kit, it's a whole new world!

Now that I had the basis from which to work, and a little bit of experience in scratch-building, you'd think that I'd get right to work on the Saturn 1B, right? Nah.... By now it was the spring/summer '91 flying season, so once again, things got put off.

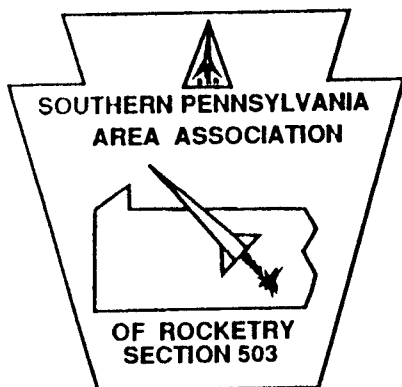
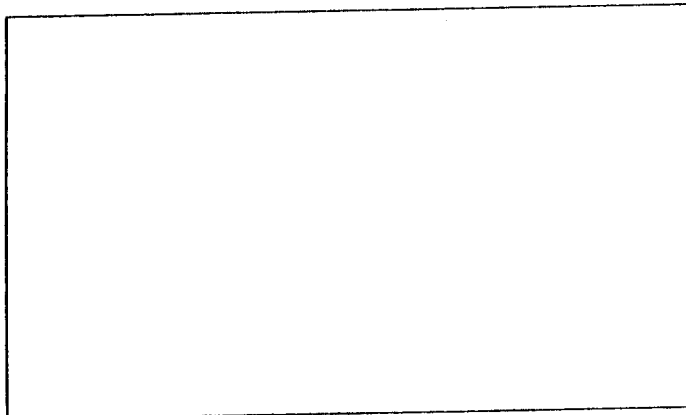
Finally, in the fall of '91, I decided that the Saturn would be my project for the winter of '91-'92. I sat down, just before Christmas and, with pencil and paper, figured just what all I'd need to build this thing, and from where it would come from. Most would come from Estes: 8 BT-50s for the "tank" tubes, BT-101SV for the tail ring and S-IVB stage, basswood for the fins and most of the external details....but wait, what am I going to power this thing with? This would determine much of how the model would be built. The original used a cluster of 4 18mm motors, mainly because there wasn't anything else available in 1966. A single "D" wouldn't cut it, and a single 24mm "E" or 29mm "F" would make the most sense. So of course, I decided on the 4-engine cluster!

**In upcoming issues: How to build the Saturn 1B.**



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

**TO:**



**SOUTHERN PENNSYLVANIA  
AREA ASSOCIATION  
OF ROCKETRY**

PROMOTING SAFE MODEL ROCKETRY  
IN SOUTHERN PENNSYLVANIA  
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*The Southern Pennsylvania Area  
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**COUNTDOWN**