



# Team Pittsburgh

Newsletter of the Pittsburgh Space Command NAR #473



Volume 13, Issue 4

#97

July/August 2001

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## Family Trip Turned into Rocketry Odyssey! by Art Nestor NAR 29623

In April, Peg and I visited our oldest daughter, Candace, now living in Phoenix. Both our daughters were NAR and PSC members but were never very serious about flying model rockets. It was a family activity. Anyhow, Peg and I drove out west, giving us an opportunity to see much of the country along the way. Our return route allowed us several space related destinations including White Sands Missile Range, The Space Center Museum (home of the All American Alpha) and Roswell, all in New Mexico. Of course we saw other attractions like the Grand Canyon, Hoover Dam, Las Vegas etc., etc.

White Sands Missile Range is still active and open to the public on a limited basis. There actually are sand dunes as white as snow. It is gypsum. 275 square miles of it. Like most other U.S. natural attractions, the best views of the dunes could only be seen for a fee. Sixteen miles are set aside for a self guided auto tour. Cost \$3 per person. We did not take it. It wasn't the money. We didn't have the time. The missile range is off state route 70. As we drove along 70, we could see what appeared to be numerous tracking stations. The objects were large white round balls on legs. Missile launches shut down rt. 70, but we must have just missed a roadblock because as we pulled onto government property we saw a missile launch! Peg spotted it first as a shiny metal sliver and then a large exhaust plume rose skyward. A perfect although distant view. Very cool! Later, after our visit, we passed a police roadblock for approaching cars traveling west. Along rt. 70 are additional space museums and visitor center facilities some of which are open to the public. New Mexico is considered the birthplace of America's missile and space activity.



PATRIOT DISPLAY

Numerous signs posted warnings not to leave the entrance road because of possible land contamination of explosive devices and instructions for explosive material hauling trucks. A sign then directed us to stop at a small reception center and present vehicle registration, proof of insurance, and a valid driver's license for a free pass through a military checkpoint. We must have looked harmless because the man didn't request anything for the pass. What is available to the public is free - Missile Park and the WSMR museum and souvenir shop.

The museum contains obsolete launch equipment, historical items, photos and tributes to those officers who played a part in the early days of WSMR. Missing was a tribute to former employee G. Harry Stine, founder of NAR. The director, Ronald Burkett, was not present and the staff could not give me a reason for his omission. Indeed, I do not think

Article continues on p.4

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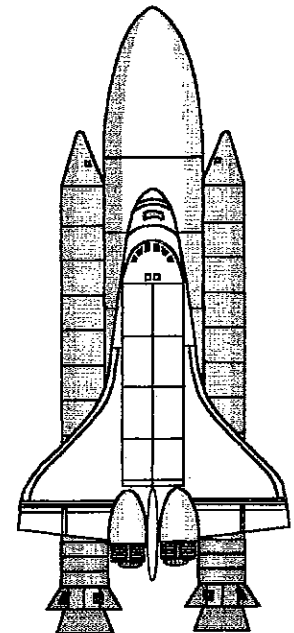
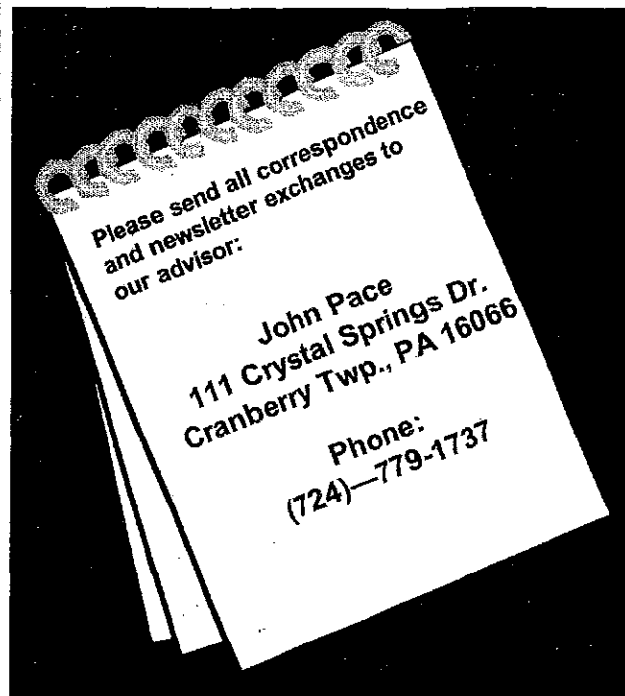
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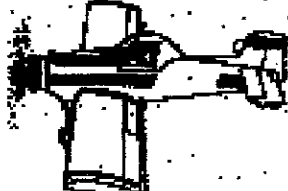
**PSC Officers for 2001:**

**President:** Rod Schafer  
**Vice President:** Mort Binstock  
**Treasurer:** Steve Foster  
**Advisor:** John Pace

**Newsletter Publisher:** Richard Freed  
**Webmaster:** Christine Rial

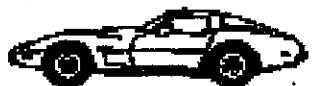
**PSC Web site:**  
<http://www.lm.com/~crial/psc>



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**Mort's Column**  
**By Mort Binstock, NAR 27182**

**SEARCH & RESCUE:**

At times, when flying subsides, PSC members go on a search & rescue. They leisurely walk through the fields & woods hoping to find long lost rockets or rocket parts. They usually find some.



Others come after a launch with long poles or ladders to retrieve treed rockets. PSC member DALE BEIGHEY has returned after a launch to retrieve a treed rocket. DALE is a roofer by trade and therefore adept at using ladders and using them safely. DALE also lives near our launch site.

A most innovative approach to search & rescue occurred at our March launch. Zelienople resident BILL SIEG came to observe our launch. BILL became focused on a rocket someone lost way past the farm on our field's right. BILL decided, at that time, to leave our launch and return in his antique but real airplane. BILL's plan was to fly over the field, find the rocket, then call DALE to retrieve it. I wonder if flying over worked? Did BILL find the rocket? Anyone know?

**COMPLIMENT:**

I received a nice compliment from DALE BEIGHEY at our March launch. DALE indicated that he enjoyed this column confiding that he read my column first upon receipt of the newsletter. Thank's DALE!

**IN SEARCH OF THE PERFECT SHOCK CORD:**

Rocketeers are continually in search of the perfect rocket, boost glider hinge, wadding, glues, shock cord, etc. Many articles and tech tips have been written documenting these searches for perfection.

Well, PSC member DALE BEIGHEY may have indeed found the perfect shock cord. His shock cord has enough give to absorb the shock at ejection, yet not too much allowing the nose to hit and damage the body tube on rebound.

DALE's magic shock cord is scaleable. It can be made thin like an Estes shock cord for use in a small model rocket, or wide & long or use in a heavier high powered rocket.

DALE's magic shock cord is also durable. Dale tested his shock cord trying to burn it with a model rocket's exhaust. No damage at all!

What I like about our club is that we have diverse members many with unique skills. We share our skills to benefit of all. Dale is a roofer by trade. DALE's magic shock cord is made from a roofing material called SPM (Single Ply Membrane). SPM is a rubber like roofing material. It comes in a thin black sheet. It looks, to me, like its made from thin black tire inner tube material. SPM is a tough durable material!

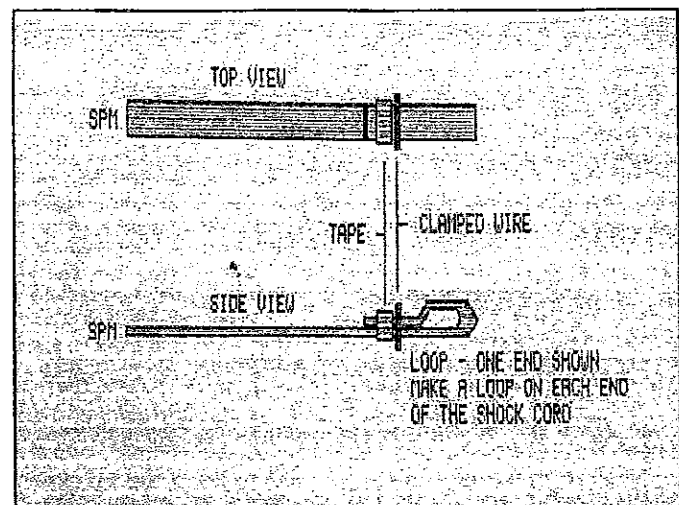
SPM will not break or become brittle with age. DALE tried to burn a sample using a model rocket engine's exhaust. SPM would not burn!

SPM can be purchased where ever roofing materials are sold. It comes in 45 & 60 mil thickness. DALE recommends the thinner 45 mil material.

DALES cuts from his SPM sheet thin shock cord strips. Strips about 1/8" wide are cut making shock cords for DALE's small model rockets. DALE uses a metal square as straight edge, cutting the material with a utility knife. His samples were professionally made, looking like old Estes rubber shock cords.

Loops are formed in each end to allow the shock cord to be installed. Dale folds the material over securing with a crimped wire. Afterwards, the end is wrapped with electrical tape. The wire and tape aided by the material's friction secures the loop. See this articles sketch detailing the loop construction.

Please share any experiences you have with making and using SPM shock cords. Thank you DALE!



## Mort's Column (Continued)

### THE FLIGHT OF THE PHOENIX:

PSC member TODD WUCHEVICH flew his radio controlled (R/C) Aerotech Phoenix at our April 22 launch. The Phoenix lifted on a special F12 R/C reload for a beautiful controlled flight. The crowd cheered TODD's flight.

TODD made the flight look simple. Simple it is not. First, the Aerotech Phoenix is a most difficult kit to construct. Its wood sheeted foam core wings must be either vacuum bagged while the glue is drying construction or weighted with over 50 pounds of books. After construction, the radio equipment must be skillfully installed.

The flight itself is not easy. The Phoenix is a difficult to control glider boosting at a high speed under rocket power. After burnout, the highly aerobatic Phoenix must be expertly flown.

TODD is an expert model plane builder & flyer with many years of experience. His skills allowed a difficult flight look easy. My hat is off to you, TODD. Thanks for the show!

### SECTION ADVISOR:

Long time section advisor & club founder ART NESTOR resigned as section advisor. ART, thanks for all your really great efforts. ART is replaced by JOHN PACE.

JOHN is a great modeler, a contest rocket contestant to be reckoned with, and professionally an executive level administrator. JOHN will make a great next section advisor to PSC. Thanks for accepting the position JOHN!

See you at the next launch!  
Mort Binstock NAR 27182

### Art Nestor's Trip (Continued from p.1)

high quality, reasonably priced merchandise. I got a tee shirt. None of the personnel we spoke with could tell us anything about the launch we witnessed. One suggested it was a drone. I don't think it was a matter of secrecy, as more of a disinterest on their part of a fairly common event.

Mark Cassatta would love Missile Park. Here on display outside the museum, are many actual and some less familiar rockets and missiles. A walking path through the park allows visitors to step off and pose with or touch them. "Please do not climb on them." Some of my favorites were the Honest John and the Patriot Missile mobile battery. Another was an experimental flying saucer.

The Space Center Museum is about a 35 minute drive from WSMR. It is a large gleaming cube in the desert foothills of the mountains on the outskirts of Alamogordo. It contains interactive displays and life size replicas. Its' Hall of Fame includes actual space artifacts. Peg and I were given free admission by assistant curator, Bob Turner. Bob had originally requested the All American Alpha for display upon completion of the project in 1992. Every 5 years, I must renew a loan agreement with the museum. Visitors enter the museum through the ground level gift shop, take the elevator to the top (5<sup>th</sup>) floor and then descend past displays to the starting point. My Alpha is on the third floor in the model rocketry exhibit. If you visit The Space Center web site, click on Gallery 3A. In one photo of the model rocket area you'll see the Alpha in the background far right. A plaque beneath the Alpha reads:

#### ALL AMERICAN ALPHA

This "Alpha" model rocket is the centerpiece of a project conceived by Mr. Art Nestor of Zelenople, Pennsylvania. The project was designed to "promote model rocketry and involve a large number of people in achieving a common goal." The goal was to fly this model in all 50 states and the District of Columbia. The model was first flown by Mr. Nestor in Pennsylvania on July 4, 1991. From there, it was mailed to selected participants in each succeeding state. The 51st and final flight was made on November 5, 1992 in Penrose, Colorado, home of Estes Industries. Mr. Vern Estes, founder of Estes Industries, the manufacturer of the "Alpha," launched the final flight. Alpha model courtesy of Art Nestor.

We met Bob Turner for the first time and visited his office. He wanted us to stay to watch movies in the IMAX Dome Theater but we were just too pressed for time. A large portion of the day had been spent in museums and we had to get in a little travel time. Outside the museum in the Air and Space Park, Peg took photos of Bob and me in front of a Little Joe II. Among other items on display is a rocket sled that attained a speed of 634 mph. Do visit The Space Center's web site to see the entire facility, which is too much to cover here. Be advised though, the museum is about to announce a name change.

Roswell is home to all the hype over an alleged UFO crash in July 1947. The town is much larger than I had expected it to be. I thought it to be no larger than Zelenople, but

they even knew whom I was talking about. If you would like to express concern over his omission, the director's email address is [burkettr@wsmr.army.mil](mailto:burkettr@wsmr.army.mil). I would encourage you to do so. The store contained



The Honest John at the White Sands Museum Missile Park

it is more like the size of Butler. The Main St. streetlights are alien head shaped with black eyes on them. The town certainly doesn't shrink away from its' unusual notoriety in the least. Many businesses use aliens in their adver-



tising. A former theater was converted into the International UFO Museum & Research Center. Yes, we had to stop there. Check it out at [www.iufomrc.com](http://www.iufomrc.com). A large UFO souvenir shop is nearby. It is expensive. Many different Roswell alien tee shirts are available. But my favorite was not available in my size. Robert H. Goddard conducted rocket experiments near Roswell in the 1930's.

Our trip primarily covered Arizona and New Mexico. We were fascinated by what we saw. It is so neat though that you can see much of what we experienced by going online. Type in white sands or The Space Center, Alamogordo, N.M. It was a tremendous trip.

**"Reach for the Sky XIII" Results**

**1/2 A Boost Glide**

Steve Foster	103 sec	510
Richard Freed	94 sec	306
John Sarosi	46 sec	204
Rod Schafer	44 sec	102
Al Garcia	31 sec	51
Mark Cassata	24 sec	51
John Brohm	NR	51
John Pace	NR	51

**B Streamer Dur (MR)**

Steve Foster	309 sec	390
Rod Schafer	306 sec	234
John Pace	179 sec	156
John Sarosi	105 sec	78
Richard Freed	91 sec	39
Mark Cassata	88 sec	39
John Brohm	SEP	0

**Random Duration (60 sec.) (Error)**

Mark Cassata	1.7	300
Al Garcia	6.7	180
Paul Bixler	6.7	180
Dale Beighy	15.0	120
Richard Freed	20.0	60
John Pace	28.3	30
Rod Schafer	33.3	30
John Sarosi	UNS	0
John Brohm	SEP	0
Steve Foster	SHR	0

**Meet Champions**

PLACE	NAME	TOTAL POINTS
1	Steve Foster	1620
2	Rod Schafer	1566
3	Richard Freed	579
4	John Pace	453
5	Mark Cassata	444
6	John Sarosi	282
7	Al Garcia	231
8	Paul Bixler	180
9	Dale Beighy	120
10	John Brohm	105
	PSC	4944
	IND	636

**A Flexie duration**

Name	Results	NAR Points
Rod Schafer	368 sec	540
Steve Foster	348 sec	324
John Pace	151 sec	216
Richard Freed	85 sec	108
Mark Cassata	36 sec	54
John Brohm	NR	54
Al Garcia	NG	0

**C Helicopter Duration**

Rod Schafer	447	660
Steve Foster	70	396
Richard Freed	NR	66
John Pace	SEP	0
Mark Cassata	NDP	0

## Reflections of a New Competitor by John Brohm NAR #78048

Typically, my rocket building interests center on old sport clones, perhaps an interesting futuristic model and most of all, trying to improve on my paint finishes. Competition has never really popped up on my radar screen. But the PSC has a great attitude about competition and I was starting to think that perhaps I might be missing out on some of the better club experiences. So I decided that it was time for me to give this competition thing a try and jumped into the PSC's latest NAR section contest, "Reach For the Sky XIII". It had to be an interesting experience as not only would this be my first serious attempt at competition, but in some of the events it would also be my first attempt building and flying these particular types of models.

With the time I had available leading up to the meet, I managed to prepare at least one entry for all of the events except C HD.

### Random Duration:

The first event was Random Duration. Steve's hot hand turned up a target time of 60 seconds with the lucky die. For reasons that are less clear now, I chose to fly one of my newly crafted B Streamer models with a 5 x 50 streamer on an A3-4T. With a 5 mph wind, I should have made a 58 - 59 second decent with this particular model. But instead, I DQ'd due to a separation (shock cord burned through).

What burned me about this outcome is had I flown just a regular sport model and parachute (which anyone can do), I at least would have had a qualified flight! Experience (or is it common sense?) can be a tough master.

### ½A Boost Glider:

This was my first BG attempt, both as a competitor and as a sport flyer. The model I used was QCR's Never Loop design, and on the whole, I was quite pleased with the performance of this first try. The Timers recorded a flight time of 30 seconds before they lost sight of the model. Unfortunately, I couldn't find the glider for a Return and I didn't have a backup, so this event was incomplete for me.

### A Flex Wing:

My first ever Flexie flight took place on Saturday. I had prepared two Flexies for this event, having built each one with the techniques Rod presented at the PSC Flexie seminar held in February. I was fairly pleased with the result, as the Timers recorded a flight time of 2 ½ minutes before the Flexie went out of sight. It was not returned. We also couldn't find the booster, so I couldn't take my

second flight until I built a new one.

Overnight, I built a second booster for the following day. Using an A10-3T, the model boosted perfectly but unfortunately the flight was DQ'd due to an inadequate glide (the Flexie did not fully deploy). The failure was due to some slight melting of the Flexie wing material, likely caused by an inadequate amount of wadding.

There was a small consolation for me nonetheless, as one of the guys, John Sarosi, happened to find the booster I had lost the previous day. Thanks John!

### B Streamer:

I had prepared two models for this event. The first model was optimized for the Apogee B7-6 motor. The maximum streamer I could fit into this thing was a 5" x 50". The first flight occurred Saturday, but the flight was just a little too good: we soon lost sight of it and I was marked on this attempt as "Track Lost".

My second attempt took place on Sunday using my back up model. Thanks to some tracking powder loaned by Steve, we were able to track this one perfectly, but again, misfortune befell me. I suffered a separation, this time the culprit being a weak attachment point between the shock cord and the streamer. Time to surrender - I was out of ammo.

### Conclusions:

Well, I was right about one thing: I would have missed out on a great experience had I not participated. Overall, I felt my results were promising; a couple of changes in technique and a few more backup models could have made a big difference in my score. However, for a new competitor such as myself, the real prize wasn't the Flight Points, but the experience gained and the lessons learned. Participating in this event gave me a much better appreciation of reliable technique, of redundancy and of Murphy's Laws. And along the way, I got some valuable advice from the experienced competitors that I'll be able to use next time.

John Brohm  
NAR #78048

**Notes From the Prez  
by Rod Schafer  
President, PSC**

**1. More National Limelight For PSC**

Congratulations! to Vice Prez, Mort Binstock on having 3 articles published in the May/June issue of Sport Rocketry. Mort's articles even caught the eye of NAR Prez Mark Bundick, who sent a nice email message to Mort by way of Richard Freed and myself. Since Mort does not have email, we got a hard copy to him by good ole U.S. Mail. Way to go Mort!!

**2. NARAM-43**

Looks like PSC will have good section representation this year at NARAM-43 in Geneseo, New York. It's nice to hear of all the folks in our club who will be traveling to Geneseo in August for our hobby's "Finest 7 Days Of The Year"

**3. Want Up To The Minute Info About Pittsburgh Rocketry?**

Just surf your way on over to: <http://groups.yahoo.com/group/PGHRocketry> and subscribe! By becoming a member of this list group, you will receive the latest info on what's happening in Pittsburgh Rocketry.

**4. Rockets & Relaxation 7**

Make sure you mark your calendar for August 19th for PSC's annual picnic. The event gets bigger and bigger every year! Guaranteed to be Lots of ROCKETS! Lots of FOOD! and Lots of FUN!! Don't Miss Out!!!

**5. Coming This October**

A huge 2-Day Regional Launch that will feature High Power flying, Competition Rocketry and Lotsa Fun. This event, Steel City Smoke Trail 1 & Dragon's Fire XXIII will be co-sponsored by Tripoli Pittsburgh #1 and PSC #473 at the Dragon's Fire HP launch site. Registration form goes online in mid-June and they will also be available at upcoming launches.

Until Next Time...  
Fly'em High,  
Rod

**Competition Corner —  
Upcoming Competitions sponsored  
by PSC**

**Contest Events For 2001**

*Rocket Into Spring 7*  
April 21 & 22

**RESULTS APPEAR IN MAY-JUNE EDITION OF TEAM PITTSBURGH**

*Reach For The Sky XIII*  
May 19 & 20

**MEET FLOWN — RESULTS IN THIS ISSUE**

*1/2A Boost Glider Dur.*

*A Flex Wing Dur.*

*B Streamer Dur. (MR)*

*C Helicopter Dur.*

*Random Dur.*

*Steel City Smoke Trail 1*

*10/20/01 & 10/21/01*

*1/2A Parachute Dur.*

*1/2A Streamer Dur. (MR)*

*A Payload Alt.*

*C Rocket Glider Dur.*

*E Flex-Wing Dur.*

**Location: Dragon's Fire HP Launch Site, Charleroi, PA**  
**Start Time: 9:00 AM (Both Days)**

**New Address or Phone Number?**

Please inform Mort Binstock of any address or phone number change or let him know at one of our monthly launches. Mort will then update the PSC database that he maintains for mailing labels for the newsletter.

**Mort's Address and Phone Number:**

**1150 Windermere Street  
Pittsburgh, PA 15218-1144  
(412) 244-1332**

# Dragon's Fire Launches

## Dragon's Fire Launch information:

All Dragon's Fire launches will be conducted according to following guidelines:

FAA waiver: 5,000 ft AGL

Flyer's fee: \$8.00 (per flyer or \$8.00 per family)

Set-up: 8:00 AM

Flyer's meeting: 9:00 AM (range opens following meeting)

Range closes: 5:00 PM

Only Tripoli or NAR certified motors may be used.

Up through I-range motors permitted without advance application.

J-motor flights require advance application/approval, subject to launch day flying conditions.

Contact Prefect Ken Good to apply for J-motor flights.

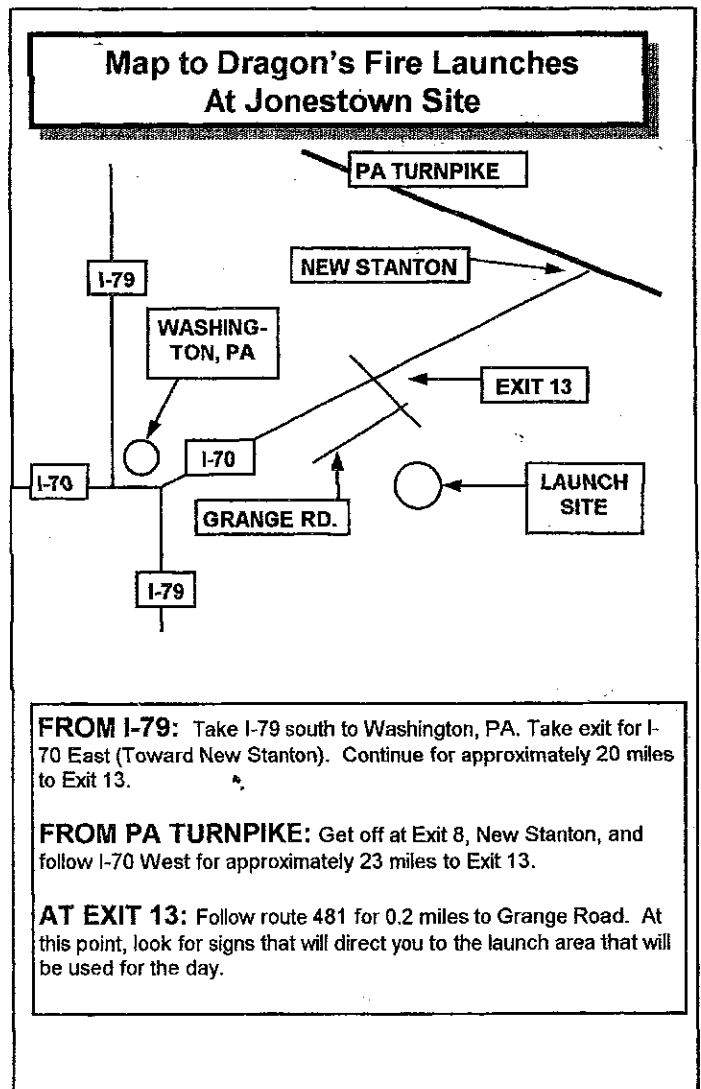
**Important Note:** Due to the launch site's proximity to an interstate highway, the RSO will reserve the right to lower the permitted motor range and/or limit launches as required by conditions.

## Dragon's Fire 2001 Launch Dates

**August 11**  
**September 8**  
**October 20-21**

More Dragon's Fire information can be found on the Tripoli Pittsburgh's web site:

[http://www.rimworld.com/Tripoli\\_PGH](http://www.rimworld.com/Tripoli_PGH)





**R & R VII**  
 by Dick Freed #24586  
 Editor, Team Pittsburgh

It's hard to believe that we have been coming to Lutherlyn for our annual picnic now for 7 years! Each year, it has been a great launch, as all our club members show their "stuff" and campers from the Lutherlyn Rocketry Programs and families join in the festivities.

**Schedule of activities:**

- 11:00 A.M. — Set up of launch area
- Noon — Launching begins.
- 2:00 P.M. — Picnic / Meeting / Raffle (range closed)
- 3:00 — 5:00 P.M. — More launching!

**Bring:**

- Meat to grill or sandwiches
- Drinks (No alcoholic beverages)
- Place settings
- A dish to share

**Bring:**

- Rockets to launch
- Engines
- Camera

**AND....**

**BRING A ROCKETRY RELATED ITEM OR ITEMS TO ADD TO THE RAFFLE. THIS IS ONE OF OUR BEST FUND RAISERS, BUT CAN ONLY BE SUCCESSFUL IF WE HAVE ENOUGH DONATIONS TO MAKE IT WORTHWHILE.**

**R & R VII**  
**AUGUST 19, 2001**

**DON'T MISS IT!**

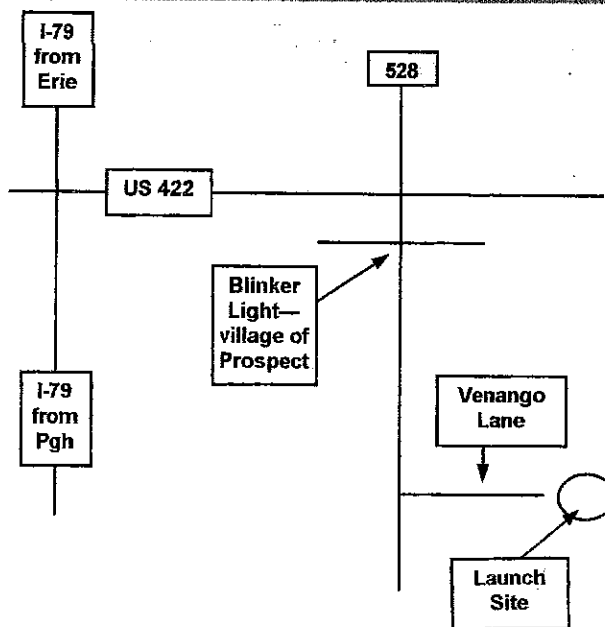
**PSC**  
**Launch Windows 2001**

**Lutherlyn:**

- June 24 Sport Launch
- July 15 "Melvin 8" Sport Launch
- Aug. 19 "R&R 7 Picnic"
- Sept. 16 Sport Launch
- Oct. 20 & 21 Competition  
 "Steel City Smoke Trail I" Regional  
 (Held at Jonestown "Dragon's Fire Site")
- Nov. 11 Sport Launch
- Dec. 9 Sport Launch

*Sport Launches begin 12:00 noon*  
*Competition on Oct 20-21 begins 9:00 a.m.*

**Map to Camp Lutherlyn**  
**PSC Launch Site**



**FROM 422 —**  
 Get off at Prospect exit (528) and head south. Continue to blinker light about 0.3 miles from exit. Go straight through this intersection. Continue south on 528 for approximately 3 miles — look for a sign on the east (left) side of the road which says "Lutherlyn Rustic Retreat Center". Turn left onto dirt road and continue approx 1/4 mi to the launch site.

# Naram-43 Announced!

- 1/2 A Boost Glide Duration
- 1/2 A Flex Wing Duration
- A Streamer Duration
- D Helicopter Duration
- A Altitude
- C Eggloft Altitude
- B Super Roc Altitude
- Research & Development
- Sport Scale



<http://www.naram43.com>

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