

Team Pittsburgh

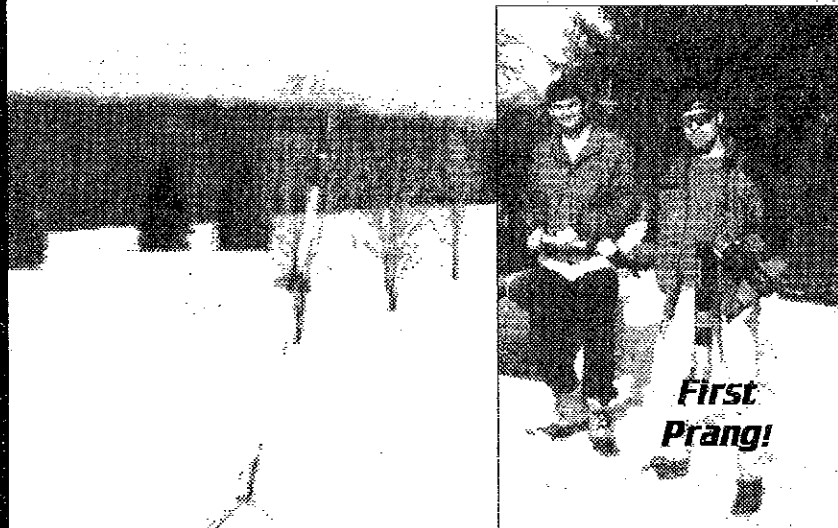


Newsletter of the Pittsburgh Space Command NAR #473

Volume 11, Issue 2

March -- April 1999

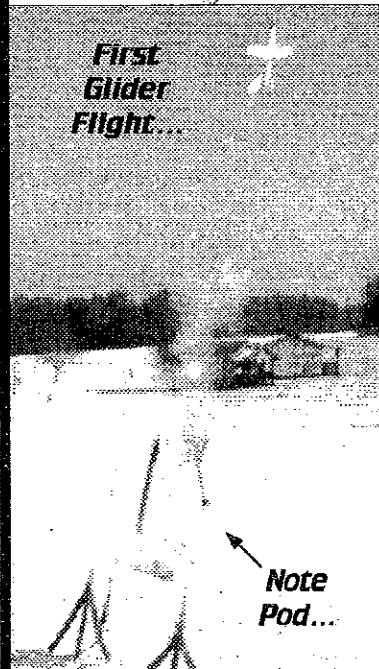
*First Launch of
1999 and...*



*First
Prang!*

*First
Glider
Flight...*

**VINTER
VUNDERLAUNCH 2
(PSC launch 1/17/99)**



*Note
Pod...*



First Fire!



*First D-12 Cato ... Well, first
TWO D-12 catos!*

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**Pittsburgh Space
Command**
is dedicated
to the
advancement
of safe
model rocketry

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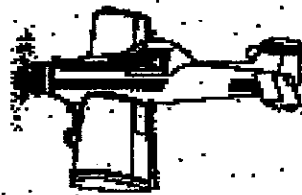
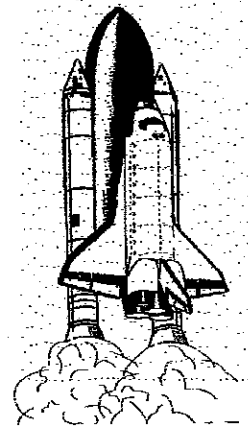
Check out PSC Web Page at:
<http://www.nb.net/~rockets/psc.html>

NARAM-41 Website:
<http://www.nb.net/~rockets/naram41/naram41.html>

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and newsletter exchanges to our
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**HOURS:
MON. - FRI. 11-9 SAT. 10-6**



**Pittsburgh Space Command
Sanctioned Competition Events
For 1999**

**NOTES FROM THE PREZ
BY ROD SCHAFER
PRESIDENT, PSC**

**Rocket into Spring V
4/18/99**

*1/2A Flex-Wing Dur.
1/2A Parachute Dur.
A Streamer Dur.
B Rocket Glider Dur.
D Dual Eggloft Dur.*

**Keep'em Flyin' High V
5/15/99 & 5/16/99**

*1/2A Flex-Wing Dur.
A Helicopter Dur. (MR)
A Streamer Dur.
B Eggloft Dur.
Random Dur.
Open Spot Landing*

**Reach For The Sky XI
6/20/99**

*1/4A Boost Glider Dur.
1/4A Helicopter Dur. ✓
1/4A Streamer Dur. (MR)
1/4A Super-Roc Dur.
B Eggloft Dur.*

**Fall Flyer VI
10/17/99**

*1/4A Rocket Glider Dur.
1/4A Helicopter Dur.
1/2A Streamer Dur. (MR)
1/2A Flex-Wing Dur.
A Parachute Dur. (MR)*

All Competitions Will Take Place At Camp Luthertyn, Prospect, PA

For Directions: See Map In "Team Pittsburgh" or Visit The PSC Web
Page For A Map

URL: <http://www.nb.net/~rockets/psc.html>

Starting Time Is 10:00 AM

1. PSC Members, In this issue of Team Pittsburgh is a NARAM-41 registration form. If you will be attending, please fill out and return as soon as possible.

2. If you would like to help out in the planning and running of NARAM-41, come out to the next NARAM-41 planning meeting on March 6th.

3. New HP Field? Tripoli Pittsburgh and PSC are in the process of securing a 300 acre horse grazing field near Charleroi, PA. More info to follow... A BIG Thank You to PSC & Tripoli Pittsburgh member, Ernie Walters for the lead on the field!!!!

4. Try something new this year in the hobby of Model Rocketry! Take a look at the list of events of the upcoming contests in this issue of "Team Pittsburgh" and come out and compete. You may just get hooked on competition flying!!

Until Next Time...
Fly'em High,

Rod

Directions to Puckety Presbyterian Church:

From Pittsburgh: Take Rt. 28 North to exit 14 (Tarentum, Rt. 366). Cross Tarentum Bridge and follow map from Clarion Hotel to church.

From Cranberry Twp. Area (1st way): Take PA Turnpike to exit 5 (Harmerville). Follow signs to Rt. 28 North. Take Rt. 28 north to exit 14 (Tarentum, Rt. 366). Cross Tarentum Bridge and follow map from Clarion Hotel to church.

From Cranberry Twp. Area (2nd way): Take Rt. 228 East until it connects with Rt. 356. Take Rt. 356 South to Freeport. In Freeport, cross Freeport Bridge and continue South on 356 to Leechburg. Rt. 356 will intersect with Rt. 56 (1st traffic signal after crossing bridge, approx. 4 miles after crossing bridge) At light turn right onto Rt. 56 West. Go to 2nd traffic signal and make left (There is Midas Muffler shop on your left at this intersection) Go short distance up hill and turn left into Puckety church entrance.

MORT'S COLUMN

BY MORT BINSTOCK NAR 27182

MORT'S COLUMN by Mort Binstock

1999 FLYING:

I write my column well in advance of the publication of "Team Pittsburgh". At this specific column writing I have flown at Seven Fields for the last time and looking forward to flying at our new field, Camp Lutherlyn. However, by the time you read this, I will have flown at Camp Lutherlyn several times.

I am looking forward to Camp Lutherlyn. Camp Lutherlyn is a nicely mowed grass flying field. I believe a good flying field aids to the success of our club.

Camp Lutherlyn holds the promise of a long term (permanent) flying field. Therefore, it is IMPERATIVE that we (Pittsburgh Space Command) maintain a good relationship with the camp and all of its neighbors. Editor DICK FREED published, in the last issue of T.P. required rules. Use good common sense, obey the rules, and listen to any continuing advise from DICK or the club's officers.

We can also help pay our debt to Camp Lutherlyn by helping and supporting its rocket campers. We can all offer support and wisdom.

Welcome to 1999's flying season, to a GREAT flying year, a new flying field, and to PSC's hosted NARAM 41! This is the year of THE NARAM!

SAFE ZONE?:

We are all concerned with safety. This article is intended to be provocative and to stimulate thinking. Model rocketry defines a safe zone as 15 or 20' circle (dependent upon motor impulse) surrounding the launcher. All must be that far away from the rocket being launched. This distance, of course, increases as the rocket motor transitions from model rocket through the various classes of high power rocket motors.

This rule makes sense and is based on a model rocket's design criteria. A model rocket's limited motor energy and low mass paper construction keeps any cato & fragmentation energies within the 20 foot zone.

I promised at the beginning of this article provocative thinking stimulation. So far nothing provocative! I am proposing a SECOND safe zone circular area. I am proposing two concentric circles with the rocket launcher in the center. One circle is the well published 20 foot radius, the second circle approximately 200 feet

in radius. I am proposing that the safe area lies in between the 20 foot & 200 foot circle. Anything less than 20 feet or greater than 200 feet represents a potentially dangerous area.

The classical 20 foot off limits area is easy to understand. I have observed over the years many bad catos. All forces and shrapnel have always remained within the 20 foot off limit area.

The greater than 200 foot circle is a new unproven idea. Over the years, I have also witnessed many prangs. Prangs occur when the chute fails, staging fails, cluster motor failures, weather cocking, etc. In all my observations the rocket, on its way to its spectacular prang, arcs over to fly over and out of the safe 20 foot to 200 foot area to prang outside the 200 foot circle. Therefore, it would appear that being too close could be dangerous, being too far could also be dangerous?

I discussed this idea at the December launch with Tripoli acting Prefect, FRANCIS GRAHAM. I was attempting to get FRANCIS interest. FRANCIS has both an inquiring mind plus the scientific skills to explore this concept. Hopefully Francis will follow up.

During the course of our December launch we observed several spectacular prangs all illustrating my point. TODD WUCHEVICH launched and pranged a large LOC King Viper not once, but twice. The rocket survived both prangs, partially due to its sturdy construction, partially to landing in soft soil. The ejection charge failed in both cases. This large heavy rocket arced over this article's safe zone to prang over 200 feet away.

Any comments, ideas, proofs, observations concerning this article? Send your ideas in as a, "letter to the editor."

ARTICLES - KEEP THEM COMING:

Fresh articles are the life blood of this newsletter. I believe that the best articles come from those who also enjoy the work. With enjoyment in mind, I have noticed that Tripoli Prefect FRANCIS GRAHAM expends considerable effort documenting our launches. Each effort produces an enjoyable and informative article complete with photographs in his interesting "Rocket Mail" newsletter.

I believe, in this hobby of ours, in double publishing an article. I believe it is OK for FRANCIS to publish the same article in both "Rocket Mail" and "Team Pittsburgh". My belief in double publishing runs counter to normal publishing practices. However, we are not a normal publication. The effort to write an

**MORT'S COLUMN
(CONTINUED FROM PAGE 5)**

article is high, the readership low. I have approached FRANCIS to obtain his interest in reporting our launches.

"TP" has another new high interest occasional writer, "tech tipeteer" JOSEPH PEKILICZ. JOSEPH recently sent in various interesting tech tips. We have published some on a space available/club interest basis. Keep sending the tips and photographs JOSEPH.

Special thanks to KEN GOOD for his article on finishing a rocket. KEN's rockets are beautifully finished, I learned a lot from KEN's article. KEN's article is another example of a natural interest/skill and of double publishing. His article first appeared in "Rocket Mail." I hope other PSC members will contribute articles.

TIMERS:

Timers are an important part of PSC's contests. Many contest flights are based on duration. Some times timers are in short supply and the contestants scramble to conscript a volunteer. One volunteer this summer was a real old timer. The old timer could barely stand, did not wear glasses, and bragged about his great eye sight. His eyesight was great! The old timer helped time a crucial winning egg lofter design of DICK's. The winning design stayed up looking like it would never come down. Soon every one but the old timer lost sight of the winning rocket flight.

As recovery was crucial to DICK's winning every one watched the old timer. "I see it I see it," the old time repeatedly shouted. Soon the old timer click stopped the stop watch announcing that the rocket landed behind the tree. With great relief DICK said, "I'm glad you do have such great eyesight. Which tree?" "I don't remember", the old timer responded.

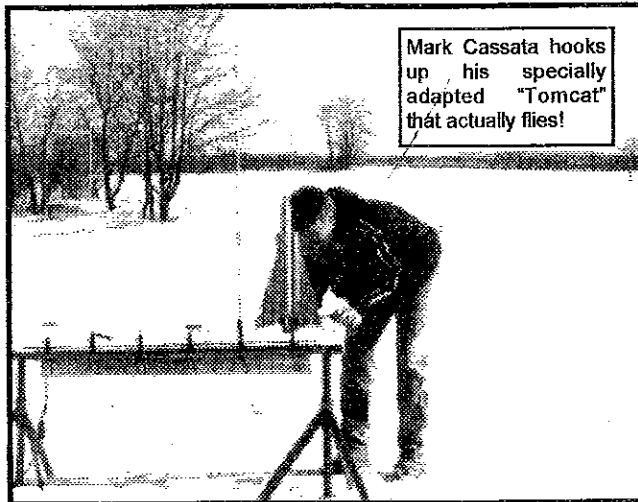
PSC has had great flying in '98. Here is to great flying and to Pittsburgh sponsored NARAM 41 in '99! Keep on flying!



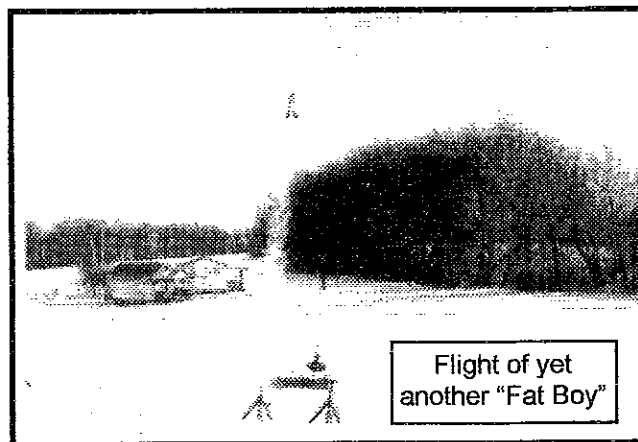
Steve Foster displays his newest rocket, the **N-41** for the members at *Vinter Vunderlaunch* in January. Steve plans to make this rocket available as a kit. More details to follow.

**More Vinter Vunderlaunch
Photos...**

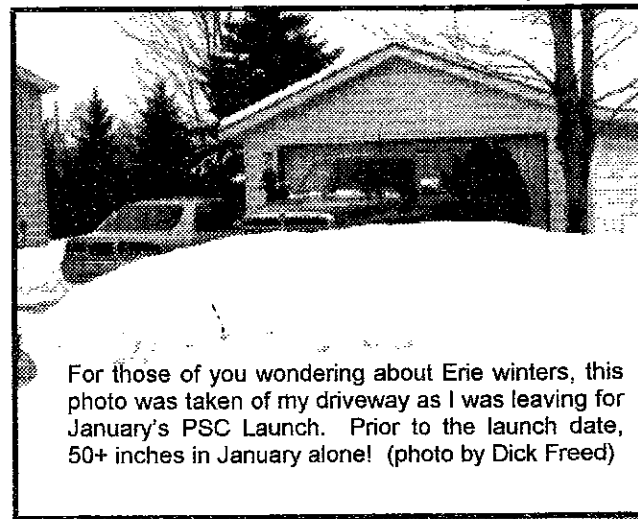
Thank you to John Pace for your photos!



Mark Cassata hooks up his specially adapted "Tomcat" that actually flies!



Flight of yet another "Fat Boy"



For those of you wondering about Erie winters, this photo was taken of my driveway as I was leaving for January's PSC Launch. Prior to the launch date, 50+ inches in January alone! (photo by Dick Freed)

**VINTER VUNDERLAUNCH 2
(PSC LAUNCH 1/17/99)
BY FRANCIS GRAHAM
SPECIAL LAUNCH REPORTER.**

The Pittsburgh Space Command Vinter Vunderlaunch 2 opened in Camp Lutherlyn, January 17. It was a good as possible day as one could hope for in January; the sun shone on the melting ice and snow, and the temperature reached into the upper 40's Fahrenheit. Most of the Tripolitans and Pittsburgh Space Command people were there, a good turnout in spite of the season! Rod Schafer, Rich Freed, Todd Wuchevich, Jeff Hayes, Ernest Walters, John Pace, Christine Rial, Art Nestor, Mort Binstock, Mark Cassata, and many others. We were all there to celebrate the parting of the earlier bad January weather.

What a launch! Where shall I begin?

With Todd Wuchevich, perhaps, who launched the most G higher power rockets? His LOC *Vulcanite* was one of the first to fly, and one of --egads--the first to die. The parachute failed to open and the rocket ran into the ground about a half-mile away. Bummer. Up went his green *Graduator*, but this time, all went well, as it did for his LOC *H76*. His green *Pathfinder* also worked. He also launched a rocket which he made which resembled a LOC *Bruiser* but smaller. He didn't have a name for it, so I picked one. It's called *The Mini-Bruiser* now. The *Mini-Bruiser* separated, and the booster section did a belly-smacker on the unforgiving hard ice. Crack went a fin. Another scratch-built (what a word! Let's call them original designs) G-chugger was a long rocket with fins and pterocylindrical stabilization. Up it went, it a classic textbook display of perfect ballistic stabilization. Too bad it came down the same way, sticking in the ice like an arrow. He didn't name this one either, so I call it: *The Rocketship X-3000*. Hope you like the name, Todd.

Jeff Hayes launched several models, including the miniature version of his *Nike-Smoke*, the *Son of Incoming* (named after Todd Wuchevich's *Mini-magg* launches of December 13) and a *Mean Machine*. The last named had perfect stability.

Prof. Walters launched many models, including the *Pathfinder*. He also gave a report at the Pittsburgh Space Command meeting thereafter on the candidate Centerville site.

Christine Rial launched several rockets, including her *Phoenix*, a slightly modified LOC *Graduator*. Mark Cassata twice launched a beautiful F-14 model, with glider recovery. It was a great show.

Mort Binstock always amazes this reporter with his extensive rocket hobby knowledge and classic model rocket collection. His *Swing-Wing* performed admirably, but got a bit stuck in a tree. Fortunately Richard Freed had a long pole used originally for opening high gymnasium windows, but now used for obtaining treed rockets. The *Crusader* had a pod catch fire at launch from a defective engine cato. Real bad scene. Mort also had--and it took every bit of strength in my to keep my eyes from popping out of my skull--a Senoski *Kopter-Rocket* from a little-known local manufacturer in the mid 1970's. The *Kopter Rocket* flew well, but not perfect, one of the rubber-band actuated blades failing to extend. I plan to do a special report in *Rocket Mail* later on this manufacturer and his amazing rockets.

Let me conclude with my own rocket test. I had been launching rockets named after the nine muses, and my first two muses, the *Calliope*, launched November 15, 1998, and *Euterpe*, launched December 13, had whistle devices attached to them, but failed to sing. Undaunted, I built a rocket whose design was presented at the November 8, 1998 brunch, called the *Terpsichore*. If I couldn't make a rocket sing, maybe I could make once dance! *Terpsichore* used spin-stabilization, which is not new, of course, but how this was accomplished stabilized is new for a model rocket. I ran an ever-widening helical *aerostroke* around the body tube, whose curvature varied according to a formula which is beyond the scope of this article. This twisted the rocket at a velocity-dependent rotation rate matched with small twistie fins at the end of booms. When launched, the *Terpsichore* danced as choreographed, spin stabilizing very well.

[Editor's note: Francis Graham is prefect of Tripoli Pittsburgh #1, and also a member of our club. He has graciously agreed to provide coverage of our regular launches for Team Pitt. Thanks, Francis!]

**Editor's Column
by Dick Freed**

1. Included in this issue of Team Pittsburgh are extra enclosures from Rod Schafer and Steve Foster. Please consider coming to NARAM-41. Please help support the club by registering *early* for NARAM -- help get the old "cash flow" going to satisfy expenses incurred in running this event!

2. A personal request -- A hard drive crash at the end of December caused me to lose my email address book. Those in the club with email capability, please send me an email so I can reconstruct my files. Thanks.

PSC Calendar of Events:
(Dragon's Fire, Interstate and other launches will be added when dates are announced)

March 21st Sport Launch @ Lutherlyn 1:00 p.m.

April 18th Sport Launch @ Lutherlyn 1:00 p.m.
 Also Competition "Rocket into Spring V" 10 a.m.

May 16th Sport Launch @ Lutherlyn 1:00 p.m.
 Also Competition May 15-16 "Keep 'em Flyin' High V" Starting 10:00 a.m. both days

June 20th Sport Launch @ Lutherlyn 1:00 p.m.
 Also Competition "Reach for the Sky XI" 10 a.m.

July 11th Sport Launch "Melvin VI" @ Lutherlyn 1 p.m.

August 7-13th



August 21st Annual Picnic & Rocket Camp reunion "Rockets & Relaxation V" at Lutherlyn
 Setup @ 11:00 a.m. Activities noon - 5:00 p.m.
 Picnic @ 2:00 p.m.

September 19th Sport Launch @ Lutherlyn 1 p.m.

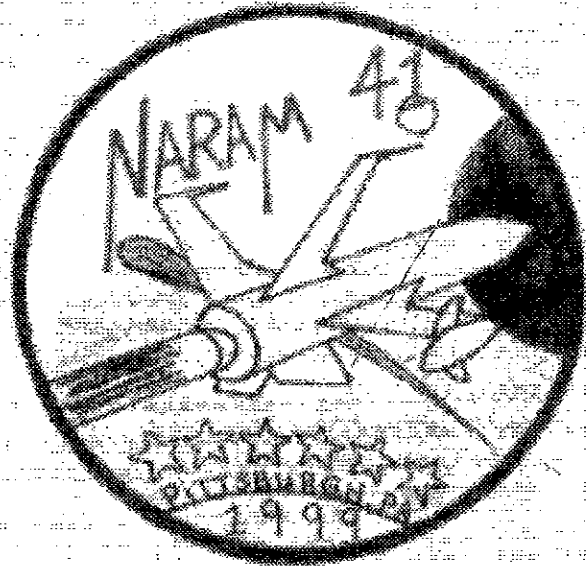
October 17th Sport Launch @ Lutherlyn 1:00 p.m.
 Also Competition "Fall Flyer VI" 10:00 a.m.

November 21st Sport Launch @ Lutherlyn 1 p.m.

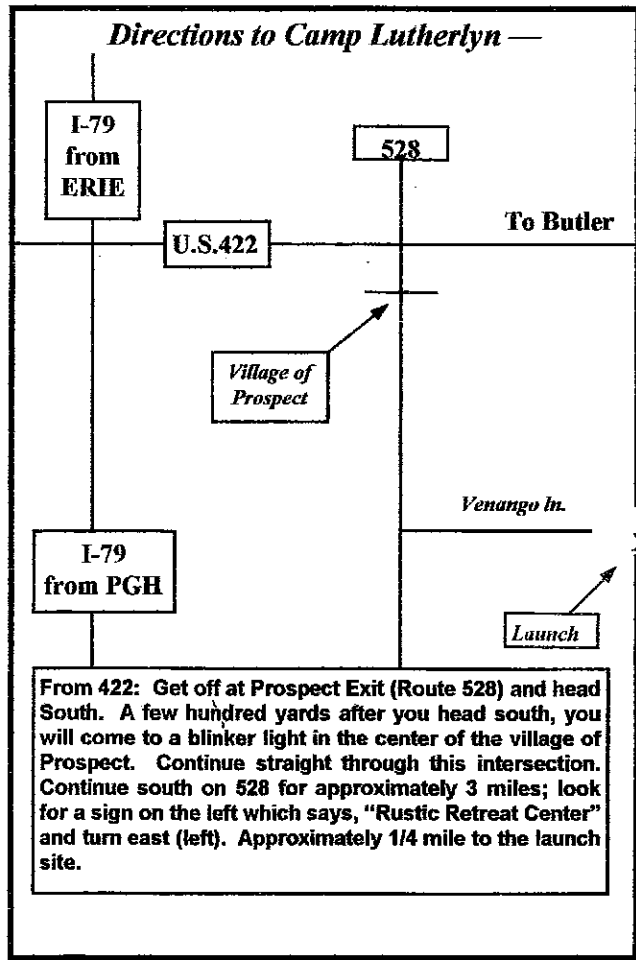
December 12th Sport Launch @ Lutherlyn 1 p.m.

Notes:

1. Competition events are listed elsewhere in this newsletter. All competitions are regionals, sanctioned by the NAR.
2. PSC is currently investigating a larger field for the Dragon's Fire HP rocketry events. More information as it becomes available.



DIRECTIONS TO PSC LAUNCH SITE



TEAM PITTSBURGH



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