



# ***Altitude!***



South Jersey Area Rocketry Society Official Newsletter

NAR Section #593

Fall 2011

## **SoJARS' Official Newsletter Returns!**

### **President's Report**

*by Rich Edwards*

I was asked to scribble out a missive for the newly resurrected newsletter.

Where to start?

Well, how about back in the day when I first learned about rockets.

A neighbor's cousin visiting from Texas had a rocket. After hearing all about how cool it was, I could hardly wait to see it fly. We flew it once that summer and never saw it again. It was too late in the evening to fly, but I had no idea in my 10 year old brain. It was impressive launching but the whole deal lost its luster real fast after it was lost. What a waste. I wasn't greatly impressed. I do remember an Enerjet motor or some such.

A few years later, about the fifth or sixth grade, my older brother and I spotted a small ad in the back of Popular Science magazine and secretly sent for a catalog. Our parents were not too enthusiastic to say the least. Fortunately enough, we intercepted the mail and got our first Estes catalog. We were corrupted for life. Our parents thinking changed somehow, because during a car trip through the western U.S. we stopped (GADZOOKS!) at Estes! After a tour and demonstration launch, we went into the store and came

out with a starter kit with launch pad and an Alpha! Plus another rocket that escapes me today. Unbelievable to us! What cool parents. Really, they took us to the Kennedy Space Center too. I can tell you it was incredibly cool to take my own kids there years later, but I'm afraid much of it was lost on them. (My parents retired and moved to Florida in 1979 and saw more shuttle launches from their back yard than they could count. Including the Challenger. I saw only one shuttle launch, from Daytona Beach, the Discovery on STS-102.) To further our path to throwing rockets at the sky, the Junior high science program had a build and fly rocketry session for ninth graders. Every spring the football practice field was filled with flying rockets. Of course there was lessons on all things rockets as well as safety. "D" engines were the holiest of holy motors and were far harder to get than "unobtainium" and I flew my brother's Cherokee-D on one. Nice!

As years went by, we kept a passing interest, but nothing spectacular. I still have an all plastic X-15 for mini-motors, an un-flyable (maybe) Viper from the Estes Aerospace Club, and a long permanently retired 1/87scale shuttle aptly named "Discovery". In the early to mid '90's we got into bigger stuff and into high power. "D" engines slowly became "small" motors.

However, I have recently been known to burn some of the “mighty A8-3”

Regardless, it’s all the same. Hours of dreaming up a design, planning and gathering materials and kits. More hours of building and fine tuning. Untold hours of paint prep and painting and decals etc. , until the fateful day when all is revealed and the flight is over in a few short seconds. Sometimes it’s the only flight, sometimes not.

I got my level-1 certification courtesy of my time with the Skybusters (section 535) in Ohio. A great bunch of folks. I recommend flying with them anytime. I had flown my scratch built “Vigilante”(it started out as a LOC EZ-I65 kit and there’s none of it left) several times on twin G-80s with great success. May 20,2000 became the fateful day as I had only one. Some G-35s but not 2 G-80s. So, a thrash session ensued to try to get a configuration that was light enough for two G-35s and yet stable enough to not require hospitalization.

Pat Easter came by and said, “Since you have a single 29 mount for it, just put an H-180 in it”. I said,” I’m not L-1” . He tossed me a motor and case and said , “You will be”. And about 15 minutes later, I was. Easy as pie. Well, looking back at it, it was. But not during. Somewhat stressful, I’d call it. Same thing I felt as my wife made her first and successful L-1 attempt.

So, now you know why after 10 years my NAR card still says “Skybusters” on it and not Sojars, even though I’m the “president”. No offense. But that’s just where I feel my roots are. “My launch pad”, so to speak.

Also as a former Navy man, all my scratch built rockets are named from carrier

based aircraft or squadrons, as that’s another place where my roots run deep.

How did I get to the humble position of club president? Just show up late for the election meeting and find out.

*Rich Edwards* “I’m are a rocket scientist and I haz the crashed rockets to proves it!”

*NAR # 75409*

### **Editorial** by *Randy DePasquale*

So I’m not sure if you’ve heard or not, but our newsletter is back! It’s been quite some time since its last publication, possibly as long ago as 2004. For years I’ve been so disappointed that we did not continue the work of *Altitude!*’s dedicated and enthusiastic original editor, Joe Libby. Well, no more! It is my goal, my mission, to return our club’s newsletter to the heights it once reached! Under Joe’s leadership, *Altitude!* was published every other month and each issue was jam-packed with interesting and exciting content from our club members. Our wonderful editor even earned us the NAR’s “Best New Newsletter” award back in 2000! As far as I’m concerned that is good reason to bring back the newsletter in the aesthetic that Joe developed, although we’ll now be publishing quarterly unless we find the content exist to publish more often.

I give Joe and our newsletter credit with maintaining my interest in this hobby and this club when I joined at the age of 14 because I was constantly excited to see what would come next and what our small local community of rocketeers was up to. It’s that sense of community that I feel has diminished over the years as a result of *Altitude!*’s absence, and with its return I hope we can revive that community feeling

## Calendar of Events

**SoJARS Meeting** – November 22<sup>nd</sup>, 7-9pm at the Woodbury Public Library, 33 Delaware Street, Woodbury, NJ 08096. (856) 845-2611. Directions can be found at [www.sojars.org](http://www.sojars.org)

It was recently decided that in 2012 we will switch to holding meetings only every OTHER month, so the meeting schedule for the upcoming year is as follows:

January 24<sup>th</sup>

March 27<sup>th</sup>

May 22<sup>nd</sup>

July 24<sup>th</sup>

September 25<sup>th</sup>

November 27<sup>th</sup>



### 2011 Club Officers

#### **President**

**Rich Edwards**

*TDRT@aol.com*

#### **Vice-President**

**Al Kozin**

*allen.kozin@comcast.net*

#### **Treasurer**

**Bruce Canino**

*caninobd@voicenet.com*

#### **Secretary**

**Bruce Canino**

### **Safety/Range Operations**

**Jack Komorowski**

*rocketflyer@comcast.net*

#### **Altitude! Editor**

**Randy DePasquale**

*neof14@aol.com*

#### **Quartermaster**

**Blair Monagle**

### **President Emeritus**

**Art Treiman**

### **SoJARS Launch**

November 13<sup>th</sup>, 10am – 3 pm

Cross Keys Field in Williamstown

Directions can be found at [www.sojars.org](http://www.sojars.org)

### **Maryland Delaware Rocketry Association**

**RED GLARE XI** - November 18-20, 9am – 5pm

Higgs Farm, Price, MD

*“Please join MDRA in supporting Fisher House at Red Glare X, and help show our appreciation for the sacrifices of our military and their families.”*

<http://www.mdrocketry.org/Launches/RedGlare11/>

### **Garden State Spacemodeling Society, NAR #439**

Launch dates: 10am – 3pm November 26, December 17,

Location: North Branch Park near Somerville, NJ

Website: [www.robnee.com/gsss/](http://www.robnee.com/gsss/)

Contact: [gssshq@optonline.net](mailto:gssshq@optonline.net)

### **Central NJ Area Rocketry Society, NAR #698**

Meetings: Visit [www.cenjars.org](http://www.cenjars.org) for info

Launches: Held in Wall Twp. See website for details.

Contact: [info@cenjars.org](mailto:info@cenjars.org)

### **Philadelphia Area Rocketry Association, NAR #520**

Launches: December 4, Hallowell Farm, Bucks County, PA. First Sunday of each month.

Meetings: Second Tuesday of even months. See

[www.para520.org](http://www.para520.org) for info

Contact: [pstein@para520.org](mailto:pstein@para520.org)

## **Calendar of Events**

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### **SPAAR, NAR #503**

Launches: 1pm – 5pm, December 4 at Manor Middle School

Meetings: 7pm – 9pm, November 14, December 12 at Boys Club Clubhouse 237 W. Lemon St., Lancaster, PA.

## **Newsletter Deadlines**

*Altitude!* will be published quarterly. As such, submission deadlines are:

Winter Issue – January 31

Spring Issue – April 30

Summer Issue – July 31

Fall Issue – October 31

## **2012 Officer Elections**

Election Day for SoJARS will be January 24<sup>th</sup> at our regularly scheduled monthly meeting.

PLEASE consider running for any position in which you can contribute your time and effort for the upcoming year. No prior experience necessary! And hey, if you don't volunteer we might just draft you anyway if it comes down to it! If you don't believe me, just as our president!

## **Editorial** (continued from page 2)

and excitement. If we are to call ourselves a “club” then let's return to the days of trading model building techniques, painting tips, having building challenges, enjoying exciting and informative meetings that people are looking forward to. For this to happen we need one thing: member participation. Everybody has something unique that they can contribute to this

community, whether they know it or not. Do you like to build scale models? Do you like to fly competition models? Do you like to build your own original designs? If so, other people in the club would probably love to hear about it! Take a few minutes to think about what you love in rocketry and how you can share it with others. On the other side of that coin, if there are topics that you'd like to learn about you can let the club know. Let's say that you want to know how to fiberglass a high powered rocket. Chances are that there are several others who would like to take a shot at it so we could do a group build session to try it hands-on. Communication and contribution are key to the livelihood of this group.

I'll come right out and say it now. This is me begging. I'm begging you to contribute to our little part of the rocketry world, either by submitting an article for the newsletter or volunteering to give a presentation at one of our meetings. It doesn't have to be the length of War and Peace, just a few paragraphs about something you love and want to share with people that you know will be interested. I'm also begging you tell me what you want to read here in the newsletter or hear and talk about at the meetings. We'll list those topics here and on the website so that those who have the “know-how” can see that there are those with a “how-to?” inquiry. Feel free to e-mail me with your thoughts at [neof14@aol.com](mailto:neof14@aol.com) using the subject line : Altitude!

With the help of you all, I hope to return to

and maintain the standards that won *Altitude!* a national award 11 years ago. I look forward to reading your submissions, comments, criticisms, and requests. Now enough seriousness...let's go fly somethin' crazy!

*Randy DePasquale*  
NAR 78422

## **NYPOWER 16 Launch Report**

*By club president Rich Edwards*

**July 22-24, 2011**

**Geneso, NY**

Hot! Well, Friday was the worst and while the temp was at or near 100, the humidity stayed low and with some shade and plenty of water it was doable. Saturday and Sunday got better. A breeze most of the time all weekend helped. Pad managers did a great job of keeping everyone's rockets coming back to the field as best they could and making sure no one goes over to the Historic Aircraft Group. A big no-no. I mean no one wants to lawn dart a B-17 or C-47. Although one fellow nearly did so to my truck. Nice. I knew it could happen, but I was taken aback by his cavalier attitude.

Got there mid-morning Friday and started to set up where the concession stand was to be starting Saturday.

They told us we could use the spot for today. Not so tomorrow. Okay with us. We moved to the flight line left side, not knowing that we were going to be 15 feet from where a 4 inch (or more) rocket was going to impact. Nice crater, I tell you.

Linda Flew first with her G-force on a G-80-7, for a very nice flight. Was much easier to track in the open field versus Cross Keys.

After several folks pointed out that since the G-force was modified to accept 29/240 and 29/360 cases, it was possibly the best day to fly it and certify. So, with the watchful eye of Nat from Mars (L-2), Linda prepped and loaded an H-180W-M into her Geeee!Force , prepped it and launched it for a absolutely beautiful flight. About 1800 feet maybe, probably more like 1500 cuz of the arc into the wind. Rocsim shows around 2000. She flew the same set-up again on Saturday with the same crowd pleasing results.

I put a 2 ounce weight in the payload section just forward of the body tube split in an attempt to slow it down some when we flew it at cross keys and it was still in there.

I suggest to anyone building a G-Force to do the same motor mount modifications. We also dropped the "steel wool" wadding, kept the stock forward centering ring/baffle and ditched the piston. It never seemed to fit right but was better than the stock stage coupler which we ditched after belt sanding way toooo much off the O.D. to make it fit. A LOC Precision fit nicely. We used a Kevlar shock cord sleeve and Kevlar wadding. Shock cord is tubular nylon , 1 inch wide with tied on to quick links. We found that the little red plugs in the ejection charges of Aerotech G-80 motors get lodged in the baffles, so I greatly suggest an inspection every launch to avoid ejection failure.

I launched an old friend's rocket. The 4 inch fiberglass "Little John" I brought in to the meeting. I dubbed it "Sgt. Kramer" in his honor and filled out the flight card "Les Kramer's Little John". The name was recognized by several at the RSO table. Nothing like a little extra pressure. Les Kramer is a past president of my old club, "the

Skybusters”, and he signed my level one paper work. I tried an H242-10 and it spit the igniter. So another was quickly installed and it flew very nice. Some damage at deployment when the forward section struck the fin can. Fin suffered the only damage beyond cosmetics. Some epoxy and a little paint and it will grace the skies again. The previous owner is an old friend and “rocket hero” to me and I wish I had done a better job of flying his rocket. At least I get to try again.

Flew the Sumo “XLP” on an H-180W-M carrying the prototype camera payload with an altimeter for the ride. Good flight, 2 piece recovery. Boost section/fincan found instantly, the rest, not so. More like an hour.

Hint#1. Get an alarm that you can attach to the rocket.

Hint#2 . Actually doing so.

Altimeter wasn't pad accessible and I tripped it loading rocket on pad.

And the video camera didn't record a thing.

Dang!

Okay, Need some improvement.

Later, I flew the standard Sumo on a G-80-7 nice flight and a short walk. Gotta love it.

I didn't want to fly the standard Sumo at Cross Keys cuz it's so short and modified some too.

I'm comfortable enough with it to trust it to “fly nice”. I wanted to take advantage of a much bigger field and a place where most folks around know they should

sorta half expect “flying badly”.

I flew my Vigilante on a I-200-M to about 2000 feet and a 2 piece recovery via motor deployment.

Again, a very nice flight and short walk. I hustled to get the 29mm motor and mount out and replace it with a 38mm so I could prep and load an I-285R-M and get another flight in. As the launch window was closing, I quickly saw this could be a really nice flight to catastrophe and aborted that plan. As it turned out, I was then quite handy to get Linda a new igniter when she needed it. A good trade.

Linda loaded her now famous with the LCOs and the crowd, Gee!Force one more time on the trusty G-80.

Last pad load of the day, only 2 rockets. Linda's on 16 and the other on 26.

Linda spit the igniter and they launched the other one first, new igniter and the Gee!Force made the last flight of the day and the last flight of NyPower16. A great flight and much appreciated by the dwindling crowd. To top it off, it landed just a short walk from the pad. Nicely done.

Our Log lists .....

Friady . 2 flights ...one level 1 cert flight. Success

Saturday. 3 flights. Two level 1

Sunday. 5 flights two level 1

Linda flew 6 (2L-1) times and I flew 4 (3 L-1)

Had a great time!

Need to further streamline our process and prep more ahead of time and keep an eye on time.

However, friends and visitors often require doing something over just to make sure it's correct.

Our log shows that we didn't have very much of that distraction on Sunday as opposed to Saturday.

## **Arctic Wolf DD Kit Overview K & S Rockets** *By Sean Kehoe*

### **The Specs**

**Diameter:** 1.64"

**Length:** 56.25"

**Weight:** 29 oz.

**Motor Mount:** 29mm

### **The parts of the rocket**

- 1- Instructions and RockSim file on a cd rom
- 1- VTC fin position wrapper
- 2-20' shock cords with sewn end loops
- 1- E-bay parts kit
- 6- ¼ birch ply fins
- 1- Heavy duty motor mount tube
- 2- 4" couplers
- 1- 4" Heavy duty body tube
- 2- 22" Heavy duty body tubes
- 3- 1/8 26" Stakes

1- Heavy duty nose cone with eye bolt and nut

1- 30" Kevlar shock cord

1- 6x6 Chute protector

3- ¼ Centering rings

1- Set of rail buttons

1- Artic Wolf decal.

### **The pros:**

You get a lot of parts and an E bay for a great price, all the parts are laser cut and heavy duty. A roc sim file comes with the kit.

### **The cons:**

The instructions are on a cd rom, the instructions are mostly pictures, the rail button are cheap I would recommend Delran rail buttons as replacements, there is no easy way to do internal fillets, you will have to cut the heavy duty thick body tube for threw the wall fins. You will need to buy additional parts to fly this kit.

*Editor's note: Sean will be kind enough to document the build process for this kit as a future newsletter article. If you have an interesting build please feel free to do the same. Show off your work! -RD*





The editor wishes to extend a few special

## **“Thank You”**s...

Thank you, **Joseph Libby**, for setting the standard to which I will attempt to hold this publication. I hope to see you at a launch or meeting sometime soon and hand you a hard-copy in person.

Thank you to current president, **Rich Edwards**, for your contributions to this issue and for your recent work clearing out our launch area. While we're at it, thank your lawnmower for us all!

Thank you, **Sean Kehoe**, for contributing your kit overview. I believe Sean travels farther than anyone else in the club to make it to our events, so thank you also for your dedication to the club.



**The following page is a flyer for SoJARS that I encourage you to print and take to your local hobby shop, library, community center, or anywhere else you think the owners/operators might be willing to display it. Simply print Page 9 and ask very politely!**





*Feeling the need for speed?*

How about zero  
to 300 mph in  
1.4 seconds?

Come feel the thrill of model rocketry  
with the South Jersey Area Rocketry  
Society!

Want to learn more?  
Visit [www.sojars.org](http://www.sojars.org)



Meetings held monthly at  
the Woodbury Public  
Library

Launches held monthly at  
one of our three launch  
sites in Williamstown,  
Sewell, or Swedesboro!





## “PHOTO FINISH”

Dan McGinnis and Barry Berman, ready to fly!



Dan McGinnis' Nike Zeus shortly before exceeding the speed of decals!



Left: Silver Comets take to the skies, like the old days of SoJARS! (albeit in smaller numbers)

Below: Several rocketeers prepping for flights.

