



# ***THE ZOGE-43***

The Newsletter of NARHAMS, NAR Section #139.  
NAR National Champions 2001, 2004



**May/June 2013**  
**Vol 35 Number 3**



Jef Fineran's Level 1 Certification Flight, known as Goofy's Nightmare, at Red Glare.  
(Photo by Ellen Fineran)

**ROCKVILLE SCIENCE DAY**  
**STEEL CITY SMOKE TRAIL 13**  
**INTERROGATOR-G KIT REVIEW**  
**RED GLARE REPORT**

**PG 7**  
**PG 12**  
**PG 8**  
**PG 5**

## About NARHAMS

NARHAMS serves Baltimore, the state of Md., Washington DC and the surrounding Metropolitan areas. The club is a section of the National Association of Rocketry (NAR) and we are the oldest continuously active model rocket club in the United States, first established as a high school club in 1963, changing our name to NARHAMS when chartered as a NAR section in 1965. NARHAMS is the only seven time winner of the NAR "Section of the Year" award.

Years won: 1997, 1998, 1999, 2001, 2004, 2006, and 2007

NARHAMS members regularly fly their model rockets at NASA's Goddard Space Flight Center on Soil Conservation Rd. in Greenbelt Md. The launches are open to the public and are held the first Sunday of every month (weather permitting), starting at 1 PM.

Sport Launches are usually held the third Saturday of every month at Old National Regional park near Mt. Airy, Md. Check the web page for updates.

NARHAMS welcomes all prospective new members to our monthly meetings. They are held on the first Saturday of the month from 5:30 to 9:30 PM at the College Park Airport Annex Building. Dues are 10 cents a week, with an initial 50 cents up front (good for 5 weeks) as a sign of good faith.

**Monthly meetings available on-line via chat-room, simply go to the NARHAMS homepage and click on the link.**

### **Directions to College Park Airport:**

Follow I-495 to Kenilworth Ave. South. Make a right onto Paint Branch Parkway, then make a right on Cpl. Frank S. Scott Dr. At the airport entrance go straight to the Operations Building, the annex building is adjacent to the "Ops" building.

## THE ZOG-43 ZOG-43

**Volume 35      Number 3**  
**May/June 2013**

ZOG-43 is the official newsletter of NARHAMS the National Association of Rocketry Headquarters Astro Modeling Section # 139

NARHAMS is the oldest model rocket club in the United States!

ZOG- 43 is dedicated to model rocketeers of all ages, abilities, and interest. We are committed to providing the most current, up-to-date information on model and real world rocketry, and to provide educational material as well as entertaining information. ZOG -43 is published bi-monthly and is available to anyone on a subscription basis. Current rates are \$10 for email or \$15 for meeting pickup or \$20 for postal mail U.S. Funds for 6 issues a year, payable to NARHAMS      Material in ZOG -43 is not copyrighted. Free and unlimited reproduction is granted with the proper credit to the author and/or ZOG-43.

For more information.....

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## ZOG ROYAL COURT (NARHAMS OFFICERS)

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Frank Panek

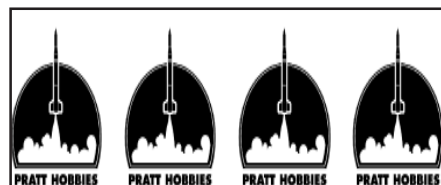
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Jennifer Ash-Poole

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Chris Kidwell

**COURT JESTER** (Section Advisor)  
Mark Wise

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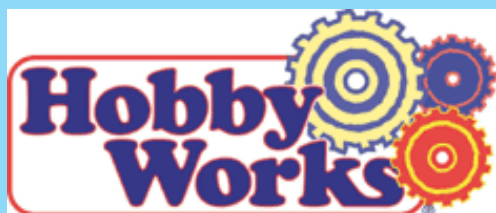
**Welcome Renewing Members**  
Jim Baird  
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Mike, Garrett and Cole Milo  
Raul Pena  
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[www.pratthobbies.com](http://www.pratthobbies.com)

Mention your NARHAMS membership on the online order form for a Special Ludicrous Discount!



Save up to 20 % at Hobby Works when you show your club membership card.

## President's Message: 'Twas the Season to be Outreaching



The melting winter snows and blossoming spring flowers hail the classic outreach season for NARHAMS. Year after year NARHAMS' best and brightest unselfishly share their knowledge of model rocketry with local youths. NARHAMSters could be found at venues and events both large and small as we provide valued guidance, assistance, insight and know-how.

Most local folks realize that spring has arrived by the re-opening of their local snow ball franchise or by the opening day of baseball. NARHAMS knows that spring has arrived when the scout groups begin to arrive in larger numbers at our monthly launches at the Goddard Visitor Center. Another sign of spring noted by NARHAMS is the final fury of qualifying for the Team

America Rocketry Challenge (TARC) at our Mt. Airy sport launches, especially during the March and April launches.

The impending end of the school year has educational facilities contacting us for build and/or launch sessions. NARHAMS has in the past performed outreaches for elementary and charter schools all the way up to community colleges. Other organizations such as STEM clubs and Civil Air Patrol (CAP) squadrons also tap into us for outreach.

We value all our outreach opportunities, however two major events regularly bring out the best in our members. The Rockville Consortium for Science has held its Science Day at Montgomery College for over two decades. We have been regularly providing volunteers to host the highly anticipated build and fly session. Ole Ed Pearson had assembled all the requisite materials and supplies and had perfected a system of rocket assembly instruction that needs no improvement. The other major event at which NARHAMS regularly provides several volunteers is the finals for the Team America Rocketry Challenge (TARC) held during May at Great Meadow in Virginia. The TARC finals is a long, grueling day for our volunteers. They have to attend to multiple events and perform several official duties for the 100 teams that have qualified for the event.

The outreach season tends to wind down at the end of May, however our outreach activity does not end there. Arguably, our biggest outreach event is yet to come. NARHAMS has been hosting the Apollo Contest at the Goddard Visitor center in July for many years. We try to schedule the contest to coincide with the actual moon landing date of July 20th. We have been awarding trophies and model rocket prizes to the top finishers in both the youth and adult divisions. Again, we NARHAMSters rise to the occasion on what is guaranteed to be the hottest and muggiest day of the entire year. Several volunteers are always needed to attend to the various stations and duties.

I know that several of our section members have been performing outreach regularly, humbly and without any need for self-promotion. I admire how you give your time and effort to help the area youths to learn about rocketry. I am also aware that our outreach programs give area youths a sense of relevance and importance as we dedicate our time and attention to them. What we do is making an impact upon young lives. Just ask Ole Ed to share a story about one of the many adults who has told him how he/she remembers being at a NARHAMS event back in the 1970s or 1980s.

**ALEX MANKEVICH**

# THE 20G-43

## Have you been to a club meeting lately?

Here are a few photos from the April business meeting. As you can see, Ed Pearson was awarded James Duffy's silver medal he won at a World Spacemodelling Championship. You can also see a discussion going on about rockets (or what Chris may be building with the parts in front of him.)

Lots of fun stuff does go on at the meetings. In July, we have our potluck picnic BBQ. Come out for a hamburger or hot dog dinner and stay for some good rocket discussion. in August, we will review NARAM, and September is our elections. You can also just come and bring a rocket kit to build.



Ed receiving James Duffy's silver medal from Jim Filler.



Chris Kidwell building a puzzle piece (James Duffy's prototype of an FAI launcher) while Jim Filler, Don Carson, Jennfier Ash-Poole and Jim Miers try to give Chris some tips on how to build it.

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## Latest NARHAMS Walls of Daring

The NARHAMS Walls of Daring are not a page for those who launch their rockets the highest, but for those who try to hit a specific altitude exactly. Anything within a couple of hundred (thousand???) feet of the mark will be included here, assuming the rocketeer was trying to hit it.

see: [http://www.narhams.org/walls\\_of\\_daring.html](http://www.narhams.org/walls_of_daring.html) for all the details

Date	Wall	Altitude Achieved	Delta	Rocketeer	Rocket
5/27/13	456	341	115	Frank Panek	Navy Es
5/27/13	456	538	82	Frank Panek	Terrier-Orion
5/27/13	1000	1111	111	Frank Panek	Payloader Mod

# THE ZOG-43

## Red Glare XIV

Frank M. Panek

On the weekend of April 12-14<sup>th</sup>, several members attended the Maryland and Delaware Rocketry Association's Red Glare XIV at the Higgs Farm near Price, Maryland on the Eastern Shore. This is a huge high-power rocketry event and it amazed me that there were so many of HAMsters at Red Glare and we really didn't see each other. I did not make the trip on Friday (12<sup>th</sup>) since it was raining heavily in West Virginia and the weather forecast did not look good for the Eastern Shore. However, Dick Moran did make the trip and got set-up early in the morning before the monsoon started but was eventually dissuaded by the weather.



Jef Fineran Getting his Level 1 flight ready

Saturday was an interesting day. With heavy rains of Friday afternoon, the Higgs Farm turned into a huge swamp and mud-hole. When I arrived about 1PM on Saturday, the parking lot was full of cars and trucks with several stuck in the mud and cars were lined up along the paved road adjacent to the field for probably a ½ -mile in each direction. I got lucky (yeah...right!) and parked at the far end of the line of cars. It took about 2-hours to prep my rocket, walk down the road to the launch pads, wait to load my rocket on a rail, and then make the recovery. I did get a chance to fly my Honest John on an H128 to about 1500 feet but that was about it for the day. Tom Ha had about the same experience with the parking but did not fly any models. Tom reported that the sun was strong, sunburn plentiful and the hot dogs good.



You can't keep Ole Ed away from a launch controller!

Sunday was the best of the three days and the parking lot had dried out considerably. I got to the field by 8AM and had my pick of relatively dry parking. After quickly setting-up, I flew my LOC Iris modified for dual-deployment to 1398 feet. Dick Moran also returned on Saturday and flew his modified Formula54 with H128. The rocket, which weighed in at 4.4 lbs, made 1200 ft and the rocket was retrieved using Dick's GPS. My plan in going to Red Glare was to try out a new custom model – SAM 49 on dual-deployment and to attempt a L-2 certification flight. I never got around to completing either. Rich Lempicki and his son also attended. Rich was going to attempt his L-2 flight but did not get the chance. He just enjoyed watching his son launch some mid-power rockets.

Later on Sunday morning I met Jef and Ellen Fineran along with Ole Ed Pearson. Jef flew a few models and I worked with another NAR member on-site to help him complete his Level-1 certification. Jef used an Aerotech H135W in the new Disposable Motor System with adjustable delay and ejection charges. Jef's rocket easily made 2,000 ft and landed about that far away from the launch pad. Jef and Ellen successfully retrieved the rocket intact and his L-1 paperwork was signed-off. Congratulations!! Ole Ed was there to offer suggestions and encouragement, to eat some hot dogs and chicken and to take in the day with the wife.

Overall, we all had a great time despite the bad weather. Next time we need to coordinate and have a united HAMster presence. Also, whenever you go to the Higgs Farm to fly....don't forget to bring your boots. Chances are that you will need them!



Frank Panek's LOC Iris ready for launch

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## Mt. Airy Launch April 27, 2013

Alex Mankevich – April 2013 Launch Director

This launch was postponed one week from the original launch date of April 20<sup>th</sup>. We had set up the range that Saturday and hoped that the wind would die down. Regretfully, the wind seemed to pick up instead of letting up, so at the last minute we had to postpone due to excessive wind. Fortunately, John McCoy agreed to conduct the Paratrooper Spot Landing contest again for the rain date.

Saturday April 27<sup>th</sup> turned out to be a delightful, sunny day without the winds of the preceding weekend. Frank Panek's truck met me at our storage facility to transport the equipment to the field. Thanks to Jim Filler's contact with the Parks, we were informed of a walkathon event also taking place during our launch. Jim had thoughtfully outlined several proactive steps to take in concert with the walkathon people. Frank and I had introduced ourselves to the walkathon people before we set up the range. They weren't unduly afraid of 3 ounce rockets 'raining' down on their parade. As it turned out, the walkathon was completed long before the majority of flyers arrived at the field, so no extra precautions turned out to be necessary.



NARHAMS conducted a total of ninety-five (95) flights that day. This activity included ten flights from the away pads, three Walls of Daring attempts by Frank Panek and one official Paratrooper Spot Landing attempt made by Jacob Brooker. Notable flights were a helicopter recovery flight by John McCoy, two tumble recovery flights by Rusty Whitman, a camera/video flight by Thomas Henderson, a two-stage flight by Jim Filler on a Texas Firefly and a 2 motor C11 cluster by Mike Kelly on his Amraam. Glider flights were made by Jim Filler, Thomas Henderson and Jim Baird. Only five flights went bad – one bad flight each for body separation and hung up on the launch rod. Three

flights went unstable.

The motor breakdown is as follows: One (1) each for 1/4A, D8, D13, D24, E11, E12, F20 and F35. Two (2) each for A3, D15 and E18. Three (3) each for 1/8 A, B4 and C11. Four (4) each for 1/2A, A10 and D12. Nine (9) flights flew on A8 motors, twenty (20) flights on C6 motors and (drum roll, please) twenty-five (25) flights on B6 motors.

Cub scout pack #761 joined us for this launch. It was good to see both Thomas Henderson and Jim Baird for a change. Frank Panek was nice to relieve me for a spell at launch duties. Thanks to everyone who helped with the range take-down.

Photos: Top, People getting ready to launch (photo by Ellen Fineran)  
Bottom: Ellen taking a photo (photo by Jef Fineran)

# THE 20G-43

## NARHAMS at Science Day at Montgomery College

Reported by Alex Mankevich



Raul showing off a nose cone.

The Rockville Consortium for Science once again hosted its Science Day at Montgomery College in Rockville on Sunday April 28, 2013. NARHAMS again performed its high-profile and popular build and fly program.

Bob Ekman was our contact for this event. Bob arranged for the Rockville Consortium for Science to provide us 36 Alpha III model rockets and plenty of A8-3 motors. Bob also arranged for his Explorer Post 1010 Team America Rocketry Challenge (TARC) members to be on hand to assist us.

Ole Ed Pearson had been our program leader for this event for years. Ed had passed the baton to Alex Mankevich who ‘channeled’ Ole Ed as best as he could. Other long-time participants Alan Williams and Mike Cochran could not make it this year. Fortunately, experienced Science Day veteran Raul Pena was available and Richard Crisco stepped up to round out the NARHAMS team. The three NARHAMSters were ably assisted by Explorer Post 1010 TARC team members Samantha Steckel, Mughilan Muthupari and

Daniel Roh.

All of the NARHAMSters brought model rockets for an informal display of various rockets. The TARC team set up their TARC rockets and a poster board adjacent to our display. The build sessions began with a brief lecture by Alex about model rocketry and the TARC team briefly described their experiences with TARC qualifying and finals.

We followed our proven program of conducting a raffle draw to determine which Science Day visitors would participate in the build and fly, and conducted the build portion in two sessions of 18 builders each. Raul Pena reprised the Ole Ed role of lead instructor. Raul did a great job keeping the builders on pace and gave excellent guidance to the rocket builders. Alex, Richard and the TARC members were stationed at the tables to assist the builders in following Raul in assembling their rockets.

We had just begun the second build session when a worried and anxious Bob Ekman burst into the room to announce that it had started to rain and suggested that we move up the launch. Alex immediately went outside to set up the launch range while Raul and Richard continued the second build session. Alex set up the launch equipment and PA system in slight, misty conditions around 2:45. By around 3:15 a crowd braved the light drizzle to gather in the bleachers to witness the launch. Slightly after 3:30 the rockets had been fully prepped with motors and parachutes, and were brought out to the field. We were met on the field by an even more worried and anxious Bob Ekman who hesitantly asked if the launch would go on. Alex ‘made Bob’s day’ when he gave a ‘GO’ for launch. Bob was so pleased that he stayed on to do the PA announcing. Bob called up the rocket builders to fly their rockets as well as lead the crowd in shouting out the countdowns for each rocket flight. The TARC team provided the pad assistance. At the end of the first rack launch the light drizzle had stopped, and all the remaining flights were launched in dry conditions under cloudy skies and wind-free conditions. All 36 rockets were launched with only one flight that went off as if the glue didn’t quite dry enough.

In summary, Raul and Richard bravely brought their “A” game and made it all look easy. The TARC team integrated well with us both at the build sessions and the launch. Once again, NARHAMS conducted a well-received outreach program at a high-profile event that we have supported for years.



TARC Team members with their models

# THE ZOG-43

## Kit Review: Sirius Rocketry Interrogator-G

Mark Wise

The bottom line up front: If you're looking for a great-looking, great-flying rocket in the F to G power range, Sirius' Interrogator-G is well worth a look.

I usually make at least one major impulse at every national event I attend, and the 2009 National Sport Launch was no exception. David and Evie Miller of Sirius Rocketry chose that weekend to release the Interrogator-G, an upscaled version of their low-powered and D-powered Interrogators. It took me three years to finish it, but someone who devotes more time to rocketry and avoids the mistakes I made should be able to build it much quicker.



David and Evie included a lot of extras with the kit, including a quick link for the chute, motor retention hardware, a 1/4 inch launch lug, and rail buttons. The wings, rudders, and strakes are made from laser-cut plywood, and the bevel for the mock intake is precut for you (unlike the smaller Interrogators). A 30-inch Top Flight parachute is standard.

With a few exceptions, construction is pretty straightforward. The engine mount gave me a lot of trouble. David designed a system that requires a threaded insert in the aft centering ring. A machine screw with a washer, screwed into the insert, is supposed to hold the motor in place. It's a simple, almost elegant idea, at least on paper. It certainly doesn't cost much, but the trick is to get the threaded insert to go in straight, and I just couldn't make it work. I fussed with it for weeks, even drilling a larger hole in a new centering ring, but it was still no go. I finally gave up and ordered a motor retainer from Aero Pack. It set me back another forty bucks or so, but it went on easily, works just fine, and looks great.



Rather than a 3FNC or 4FNC arrangement, the Interrogator-G uses what Sirius calls a "unique slung-fin design," which reminds me – just a little bit – of an F/A-18 or F-22 fighter. Two large fins are mounted to the top of the body tube, with a pronounced negative dihedral ("anhedral," if you're going to be picky). A dowel glued along the body tube provides alignment and anchoring for the wings. Glue the wing roots to the dowel and the body tube, and you'll have a strong joint that's aligned nicely along the longitudinal axis of the body tube. The anhedral can be a bit tricky to get right, so pay careful attention to the alignment as you glue on the wings. Minor misalignments can be hidden with filler – I used Elmer's Wood Filler to good advantage here.

A rudder is mounted perpendicular to each of the wings. Tabs on each rudder fit into slots in the wings, and are long enough to fit into doublers that are glued to the wing and rudder, making for a solid, durable joint. Mock ramjets hide the doublers.

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A pair of strakes (visible in the bottom view) are glued forward of the wings. Their position is critical if you plan to paint the belly silver. Mine were misaligned by about a quarter of an inch in the fore-and-aft dimension, which ruled out the belly detail. If the area around the strakes is left white, the misalignment is almost unnoticeable at a glance.

Install the launch lug if you like, but the Interrogator-G weighs around 21 ounces, and I wasn't comfortable with the idea of launching from a rod. Instead, I left the lug off and installed the rail buttons after the rocket was painted.

Since the Interrogator-G's overall color is gloss white, you'll want to take care with the finish. I used Elmer's Wood Filler to take care of a couple of gaps. I followed that up with three coats of high-build primer and three coats of Krylon enamel. For the leading edges of the wings and rudders, the insides of the ramjets, and the undersides of the strakes, I brushed on Tamiya gloss black. At Scott Branche's suggestion, I used Tamiya masking tape for this part of the job. There were still a couple of glitches, but overall it was the best masking and paint job I'd ever done. I would have painted the underside of the body silver, but the misaligned strake pretty well ruined that possibility.

Four sheets of waterslide decals came with the kit. They go on easily and look good, and there are a lot of them – just under 50. Be prepared to devote a few hours to the task, and I strongly recommend sealing the model with Future® floor polish. I used two coats, applied with a foam brush.

My Interrogator-G first flew at the November 2011 Ag Center launch. I hadn't finished the paint job yet; in fact, the model was still in primer. It took off nicely on an Aerotech F reload, but I'd figured the delay wrong and the rocket was screaming down at ejection. I got the model back, but I'd zippered the tube about four inches back. I e-mailed David Miller, who sent me a new tube and coupler at no charge. I spliced in the new tube over the winter, filled the seam, primed the new section, and finished the paint and decals.

The first "all-up" flight was last summer at NARAM 54. I showed the completed model to David and Evie, who thought I'd done a pretty decent job with it. I thanked them – again – for their great customer service and took the model to the sport range. I was pretty nervous as I hooked it up on the pad, and I didn't feel any calmer when it lifted off. However, an F52-5T turned out to be a great choice of motor. My Interrogator-G boosted like an arrow and coasted majestically, with ejection right at apogee. It descended nicely under a red-white-and-blue Chutes by Boe parachute, and landed without damage. Success!

If I were to build another Interrogator-G, I'd pay closer attention to the alignment of the strakes, and I'd install an Aero Pack motor retainer right away. I'd also give some thought to installing a different shock cord, as I'm not sure how long the elastic cord that came with the kit is going to last. Overall, it's a great kit if you're looking for a mid-level challenge, and I'm glad I couldn't resist buying it back at NSL!



Available from Sirius Rocketry, [www.siriusrocketry.com](http://www.siriusrocketry.com). Retail price: \$114.95.

# THE ZOG-43

## April and May Goddard Launches

April and May are big months at Goddard. In April, we launched 120 flights, in May, 114. It was busy, but Jef and Ellen Fineran got a few pictures of NARHAMSters in action during May (and even ole Ed coming out to visit.)



The crowd watching a rocket floating down.



Ward practicing for the javelin throw for the Olympics, and retrieving rockets as well.



Richard Crisco safety checking in a rocket.



Ole Ed Pearson and Richard Crisco conferring on something.

# THE ZOG-43

## Team America Rocketry Challenge!

Roving photographer Alex Mankevich got some pictures of NARHAMSters working the TARC Finals in Great Meadow.



Alan Williams talking to fellow NAR members.



Bruce Canino making sure the data is getting put up on the board correctly.



Frank Panek hanging out with his team's supporters.

Jennifer Ash-Poole is riding in steerage while Ed Pearson is chauffeured back to the summer house by Greg Bock.

# THE ZOG-43

## Steel City Smoke Trail 13 Report

A compilation from Don Carson, Jennifer Ash-Poole and Kevin Johnson

Don Carson really enjoyed the meet. He met a lot of very nice folks, everyone welcomed him and remembered his name, unfortunately he can't remember hardly any of theirs!

The weather was great, partly cloudy and mostly breezy except for a nice long lull Saturday afternoon.

There was only one A competitor and one B (flown by proxy), Sarah Alexander flew her sister's proxy models. There were 5 teams: 2 from PSC, 1 from MTMA (Ohio), 1 NARHAMS and 1 Indiana (also known as Independent.) We aren't sure the total number of C division competitors there were, but they were from SPAAR, PSC, MTMA,

NOVAAR and NARHAMS. Wolf von Kiparski and Mike Nowak were there as team Jedi Masters. Jennifer didn't recognize Wolf until he spoke, then she recognized the voice. It was great seeing him. They seemed to be having fun, and was talking up NARAM to people. Heck, they drove home, then back to the field on Saturday. NARAM is that close to the Pittsburgh field. Bob Ferrante had NARAM 55 medal on him. They look really good, can't wait to try to win one!

Very small models seemed to be the way to go in 1/2A RG, although Bob Ferrante put up a respectable second flight on a sizable model intended to have RC gear in it but flying without. Kevin built a RG on the field. It was a bipolar model that would either glide beautifully or death dive, showing no inclination other than return to Mother Earth as quickly as possible. His test flight looked great, the competition flights, not

so much. Don Carson continued his string of consistently pranging Internats-styled scissor/flop wing gliders, grrr. Jennifer put up an Edmonds Glider that was supposed to eject the motor. After she did some sanding and added clay, she got her "Qualified Flight" of 6 seconds.

B SD MR was hotly contested with lots of very good flights. However, it did not require extra rounds to determine the winner. You did need three good flights to be in the running. Rita Feveryear was really close to Glenn in B streamer, but John Pace snuck in between their totals. For B SD Kevin, of Put Up or Fitch Out, used the single model that he had built at the last club meeting, with a replacement fin for the one that broke. He had 3 pretty good flights. Helped that Rod and Steve (Flying I Beam Kids) had 3 DQ's in that event.

1/4A Helicopter seemed to give folks a lot of trouble. Although there were a lot of very nice flights, there were a surprising number of separations, unstable flights and no rotations. Here again, Don thinks that building small and pistons were key to good performances.



Don Carson getting back into the swing of competition  
(photo by Jennifer Ash-Poole)



Team Qualified Flight's Red Max.  
(photo by Jennifer Ash-Poole)

# THE ZOG-43

## Steel City Smoke Trail (con't)



Kevin loading up PUFO team model (photo by Jennifer Ash-Poole)

Trident in two different years with two different decals was a nice study in Estes kits. They were tied after the flights, so Flying I-Beam Kids flew again. Jedi Masters made the comment: (paraphrased)

“Flying a C6-5 on a Trident, \$5. Making the Flying I-Beams Kids chase you for points, priceless.”

Don finished flying early and put in a dozen or more flight on the Ravenling and Decoy RCRGs flying B and C engines. That was lots of fun. To avoid flying over the contestants and parking, he had

to launch cross wind. This resulted in some less than optimal boosts, but gave him an opportunity to get practice in for that condition. It would have been nice to have ailerons to roll into the wing during boost. He had one hair raising loop-de-loop flight on the Decoy because he launched in glide mode instead of boost mode, oops. For some reason, they called a heads up on all his flights after that. (of course, the wind picking up may have had something to do with that as well.)

In overall standings, NARHAMS did not fair so well, Jen carried the load, but Don did not so well, sorry team. Team PUFO was flying as independents.

One other memorable thing about SCST was the appearance of Walt Senoski flying a Pterosaur, a Kopter Rotor Recovery Rocket, and a Jetison Glider. A little bit of history brought back and for sale! The gliders boosted nicely and glided really well.

Flying I-Beam Kids' Trident Flying.

(photo by Kevin Johnson)

And Don grilled up some brats for lunch on Sunday. We all agreed Wegman's brats aren't the best, but having lunch grilled on the field and

people commenting on the smell from the range head, that was fun.

Now we just need to do a campfire breakfast at ECRM, with Kevin's way to do bacon and eggs on the fire.

Classic model had a great selection of entries. Jen's Red Max did well and Kevin's upscale Scorpius put in a spectacular flight on a G79 taking second place for Team Put Up or Fitch Out. There was an exciting Farside-X that weather-cocked severely on the first stage and flew the second two stages nearly horizontally way upwind. There also two nice Tridents. Seeing the classic models in the judging room was cool (somehow John Brohm got the room with the jacuzzi at the Super 8. Nice room!). Seeing the



The Scorpius in Flight. (photo by Kevin Johnson)

**LATE BREAKING NEWS!** The results were sent to the Zog-43 Editor just in time for this Edition! See the following pages for the results.

# THE ZOG-43

## Steel City Smoke Trail 13 Standings

### Set Altitude (225 m)

Place	Contestant	NAR	Sect	Flight 1	Flight 2	Total	Points
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#### A Division

1	Alexander, Sarah	88663	473	30.22% (157 m)		3022	240
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#### B Division

—	Alexander, Michala	85196	IND	NR		0	0
---	--------------------	-------	-----	----	--	---	---

#### C Division

1	Feveryear, Glenn	24931	503	0.0% (225 m)		0	240
2	McGraw, Jim	18071	205	3.56% (217 m)		356	144
3	Ferrante, Robert	28626	606	28.0% (162 m)		2800	96
4	Bock, Greg	44161	205	30.67% (294 m)		3067	48
5	Pace, John	49785	473	41.33% (318 m)		4133	24
6	Alexander, Scott	84112	473	48.0% (333 m)		4800	24

#### T Division

1	The Flying I-Beam Kids	T-473	473	4.44% (235 m)		444	240
2	Put Up or Fitch Out	T-333	IND	12.89% (196 m)		1289	144
3	Jedi Masters	T-337	606	38.67% (138 m)		3867	96
4	Qualified Flight	T-413	139	100.0% (0 m)		10000	48

### 1/4A Helicopter Duration

Place	Contestant	NAR	Sect	Flt 1	Flt 2	Total	Points
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#### A Division

1	Alexander, Sarah	88663	473	3		3	600
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#### B Division

—	Alexander, Michala	85196	IND	NDP		0	0
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#### C Division

1	Pace, John	49785	473	32	25	57	600
2	Bock, Greg	44161	205	20	22	42	360
3	Feveryear, Glenn	24931	503	26	11	37	240
4	Feveryear, Rita	86758	503	ROT	7	7	120
—	Alexander, Scott	84112	473	EJ	EJ	0	0
—	Carson, Don	11069	139	NDP		0	0
—	Ferrante, Robert	28626	606	UNS		0	0
—	McGraw, Jim	18071	205	SEP	SEP	0	0

#### T Division

1	The Flying I-Beam Kids	T-473	473	29	ROT	29	600
2	Jedi Masters	T-337	606	UNS	17	17	360
3	Put Up or Fitch Out	T-333	IND	7		7	240
3	Qualified Flight	T-413	139	7		7	240
—	G-Force	T-981	473	SEP		0	0

### 1/2A Rocket Glider Duration

Place	Contestant	NAR	Sect	FLt 1	Flt 2	Total	Points
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#### A Division

—	Alexander, Sarah	88663	473	NG		0	0
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#### C Division

1	Alexander, Scott	84112	473	33	76	109	570
2	Ferrante, Robert	28626	606	22	37	59	342
3	McGraw, Jim	18071	205	10	13	23	228
4	Pace, John	49785	473	10	11	21	114
5	Bock, Greg	44161	205	NG	13	13	57
—	Feveryear, Glenn	24931	503	NG	112 NR	0	57
—	Carson, Don	11069	139	NG		0	0

#### T Division

1	G-Force	T-981	473	41	107	148	570
2	The Flying I-Beam Kids	T-473	473	NG	112	112	342
3	Jedi Masters	T-337	606	LOP	18	18	228
4	Qualified Flight	T-413	139	6		6	114
—	Put Up or Fitch Out	T-333	IND	NG	NG	0	0

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## B Streamer Duration Multiround

Place	Contestant	NAR	Sect	Flt 1	Flt 2	Flt 3	Total	Points
<i>A Division</i>								
2	Alexander, Sarah	88663	473	SEP	40		40	234
<i>B Division</i>								
1	Alexander, Michala	85196	IND	76			76	390
<i>C Division</i>								
1	Feveryear, Glenn	24931	503	111	106	96	313	390
2	Pace, John	49785	473	98	113	88	299	234
3	Feveryear, Rita	86758	503	38	137	118	293	156
4	Bock, Greg	44161	205	61	78	68	207	78
5	McGraw, Jim	18071	205	60	93	37	190	39
6	Carson, Don	11069	139	77	67	SEP	144	39
7	Alexander, Scott	84112	473	UNS	127	SEP	127	39
8	Ferrante, Robert	28626	606	49	46		95	39
<i>T Division</i>								
1	Put Up or Fitch Out	T-333	IND	92	92	84	268	390
2	Jedi Masters	T-337	606	SEP	133	118	251	234
3	Qualified Flight	T-413	139	43			43	156
—	G-Force	T-981	473	SEP			0	0
—	The Flying I-Beam Kids	T-473	473	SEP	NDP	UNS	0	0

## Sport Scale

Place	Contestant	NAR	Sect	Prototype	Static	Flt 1	Flt 2	Total	Points
<i>A Division</i>									
—	Alexander, Sarah	88663	473	Astron Scout	591.0	0.0	0.0	0	0
<i>B Division</i>									
1	Alexander, Michala	85196	IND	Centuri Centaur	571.0	150.0		721.0	600
<i>C Division</i>									
1	Feveryear, Glenn	24931	503	Astron Farside X	770.0	265.0		1035.0	600
2	Alexander, Scott	84112	473	Astron Scrambler 1969	755.0	260.0		1015.0	360
3	Pace, John	49785	473	Astron Shrike	690.0	245.0		935.0	240
<i>T Division</i>									
1	The Flying I-Beam Kids	T-473	473	Estes Astron Trident	785.0	150.0	195.0	980.0	600
2	Put Up or Fitch Out	T-333	IND	Estes Scorpius	755.0	200.0		955.0	360
3	Jedi Masters	T-337	606	Estes Trident 1973	725.0	210.0		935.0	240
4	Qualified Flight	T-413	139	Red Max	690.0	195.0		885.0	120
5	G-Force	T-981	473	Estes Astron Ranger	660.0	170.0		830.0	60

## Steel City Smoke Trail 13 Meet Champions

Place	Contestant	NAR	Section	Total Points	Place	Contestant	NAR	Section	Total Points
<i>A Division</i>					<i>T Division</i>				
1	Alexander, Sarah	88663	473	1074	1	The Flying I-Beam Kids	T-473	473	1782
<i>B Division</i>					2	Jedi Masters	T-337	606	1158
1	Alexander, Michala	85196	IND	990	3	Put Up or Fitch Out	T-333	IND	1134
<i>C Division</i>					4	Qualified Flight	T-413	139	678
1	Feveryear, Glenn	24931	503	1527	5	G-Force	T-981	473	630
2	Pace, John	49785	473	1212					
3	Alexander, Scott	84112	473	993	Place	Section	Num	Total Points	
4	Bock, Greg	44161	205	543	<i>Sections</i>				
5	Ferrante, Robert	28626	606	477	1	PSC	473	5691	
6	McGraw, Jim	18071	205	411	2	IND	0	2124	
7	Feveryear, Rita	86758	503	276	3	SPAAR	503	1803	
8	Carson, Don	11069	139	39	4	MTMA	606	1635	
					5	NOVAAR	205	954	
					6	NARHAMS	139	717	

# **THE 20G-43**

## **NARHAMS 2013 CALENDAR**

Jun 1	5:30 – 9 pm	Monthly meeting, Making metal gizmos (John McCoy)	College Park, MD
Jun 2	1 – 2 pm	Goddard Public Launch	Greenbelt, MD
Jun 8-9	9am - 5pm	NOVAAR Regional Meet	The Plains, VA
Jun 15-16	10 am – 4 pm	ECRM-40 Regional Meet (Jim Filler)	Mt. Airy, MD
Events: 1/4A HD, A RG, 1/8A PD MR, B SD, SpSc (Sunday, Cowboy Hat Day)			
Jun 22	10am - 4pm	Ag Center launch (Mark Wise)	Westminster, MD
Jul 6	5:30 – 9 pm	Monthly meeting, Pot Luck Picnic (Mark Wise)	College Park, MD
Jul 7	1 – 2 pm	Goddard Public Launch	Greenbelt, MD
Jul 14	12pm-4pm	Apollo Contest (Jennifer Ash-Poole)	Greenbelt, MD
Jul 20	10 am – 4 pm	Sport launch (Frank Panek)	Mt. Airy, MD
Jul 20 -26		NARAM-55	Aurora, OH
Events: 1/8A PD MR, 1/4A HD, 1/2A ALT, A PAY, A RG, B SD, C DEA, R&D, Scale			
Aug 3	5:30 – 9 pm	Monthly meeting, NARAM Recap	College Park, MD
Aug 4	1 – 2 pm	Goddard Public Launch	Greenbelt, MD
Aug 17	10 am – 4 pm	Sport launch: Triathlon contest (Chris Kidwell / Brad Grant)	Mt. Airy, MD
Sep 1	1 – 2 pm	Goddard Public Launch	Greenbelt, MD
Sep 7	5:30 – 9 pm	Monthly meeting, Elections	College Park, MD
Sep 14 - 15	9am - 5pm	Capital Cup FAI World Cup	The Plains, VA
Sep 21	10 am – 4 pm	Sport launch, Night launch (Jim Filler)	Mt. Airy, MD
Sep 28	10am - 4pm	Ag Center launch (Mark Wise)	Westminster, MD
Oct 5	5:30 – 9 pm	Monthly meeting, Ole Ed movie night (Ed Pearson)	College Park, MD
Oct 6	1 – 2 pm	Goddard Public Launch	Greenbelt, MD
Oct 19	10 am – 4 pm	Sport launch, Flying Ships (Maria Ha)	Mt. Airy, MD
Nov 2	5:30 – 9 pm	Monthly meeting, 2014 Planning meeting	College Park, MD
Nov 3	1 – 2 pm	Goddard Public Launch	Greenbelt, MD
Nov 16	10 am – 4 pm	Sport launch, Military Rockets (Bradley Grant)	Mt. Airy, MD
Nov 23	10am - 4pm	Ag Center launch (Mark Wise)	Westminster, MD
Dec 1	1 – 2 pm	Goddard Public Launch	Greenbelt, MD
Dec 7	5:30 – 9 pm	Holiday party, Greenbelt Community Church	Greenbelt, MD
Dec 21	10 am – 4 pm	Sport launch, Mid-power rockets	Mt. Airy, MD

Note: Sport launches at Mt. Airy are open to NARHAMS members only for the first 2 hours, and open to everyone thereafter.



### **Rocketeers need lunch!**

Lydia and Jacob Booker make sure to stay fueled while rocket launching with mom, Kathleen and grandparents John and Mary McCoy.

(photo by Jim Filler)