THE 20G-43

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

MAR/APR 2012
Vol 34 Number 2

An upscale IQSY Tomahawk launches at the March sport launch.
(photo by Thomas Henderson)

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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.

However the treasurer reserves the right to make you empty your pockets and give him all of your change. He needs the bus fare.

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 34 ***Number 2***

March/April 2012

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

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COLLECTOR OF THE ROYAL TAXES (Treasurer)
Ed Pearson

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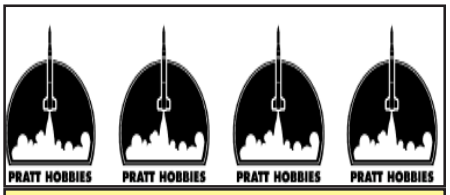
Chris Kidwell

COURT JESTER (Section Advisor)
Mark Wise

****

Welcome New Members

Marcus Alfred
Matthew and Alan Hawk
Charles Rosensweig
Jack Zaleski
Easter Bunny
Sheldon Cooper



Pratt Hobbies is proud to announce that we are now a QUEST dealer! Contact us for all your Quest and MicroMaxx products.

Check it out at
www.pratthobbies.com

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

Hobby Works

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

NASA Goddard Visitor Center Model Rocket Contest

FOR: All Area Model Rocketeers

WHEN: Sunday, July 15, 2012

WHERE: NASA/Goddard Visitor Center, Greenbelt, Maryland (I-95 Exit 22A; Baltimore-Washington Parkway Exit for Route 193-East; then follow signs to Visitor Center on ICESat Road)

EVENT: "Lunar" Spot Landing

COST: Free

REGISTRATION: Register at the launch site on the day of the launch.

SPONSORS: This contest is hosted by the NASA Goddard Visitor Center, sponsored by the Maryland Space Business Roundtable, and conducted by the National Association of Rocketry Headquarters Astro-Modeling Section (NARHAMS.org).

AWARDS: First through third place trophies for each event have been donated.

WHY: This event commemorates the 43rd anniversary of the Apollo 11 Moon landing and promotes interest in space sciences among area students.

Contest Rules

1. The contest is open to all model rocketeers.
2. Contestants must follow the National Association of Rocketry (NAR) Safety Code.
3. Modelers must provide their own models, wadding, engines, igniters, and prepping tools. The Space Center will provide the launch equipment suitable for 1/8" diameter straws (launch lugs).
4. In each event, contestants may fly either as an individual or as part of one team. Entry into both team and individual competition is not permitted.
5. Rockets must use a single (NAR classification and safety certified) engine for each flight. "D" class engines or greater are prohibited.
6. Total weight of the model with engine must be less than four ounces.
7. Rockets must pass a preflight safety, engine and weight inspection at the launch site prior to launch.
8. Models must land safely and must use streamers, parachutes or gyrocopter-type devices for their recovery.
9. Rockets must not separate into two or more unattached parts during flight.

Contest Judging and Other Important Information

1. Modelers may launch their models one time.
2. A launch is a successful ignition of the engine. A flight is when the rocket starts to move upward on the launch pad and until the rocket finally stops its descent.
3. The object of the event is to determine whose flight comes closet to reaching the center of a circular 150'-diameter "Moon" marked on the ground.
4. If a model lands on the "Moon," contestants must leave the model undisturbed until the model is measured.
5. Officials will measure all models that land within the "Moon's" boundaries.
6. Measurement will be from the "Moon's" center to the tip of the model's nosecone. The measurement becomes a contestant's score.
7. The person with the smallest measurement (i.e., closest to the "Moon" center) will be declared the winner. The next smallest score will be second place and so on.
8. The contest will be flown in two age divisions: one is for those 15 years and younger; the other is for those 16 years and older. Teams will be classified by the age of the oldest team members.
9. Decisions of the judges are final.
10. These contest Sundays have traditionally been some of the hottest days of the year, so be prepared. Also, please be prepared to have FUN!

Time Schedule

Visitor Center Hours For This Event	12:00 Noon to 4:00 p.m.
Contest Registration	12:30 p.m. to 2:30 p.m.
Contest (Flying Period)	1:00 p.m. to 3:15 p.m.
Awards Ceremony	3:30 p.m. to 4:00 p.m.

Note: For Visitor Center information, call (301) 286-8981 Tuesday through Friday, 10 am. to 4 p.m.

What was that picture in the last ? a B RG wing!

A group of NARHAMSters and people elsewhere are doing a group build of a B rocket glider. Here are some pictures, and some observations about our group fiberglassing session. Some people have finished, some are still working on it.

First up, some observations from Chris Kidwell.

How many people can you fit into Jim's basement? (photo by Jennifer Ash-Poole)

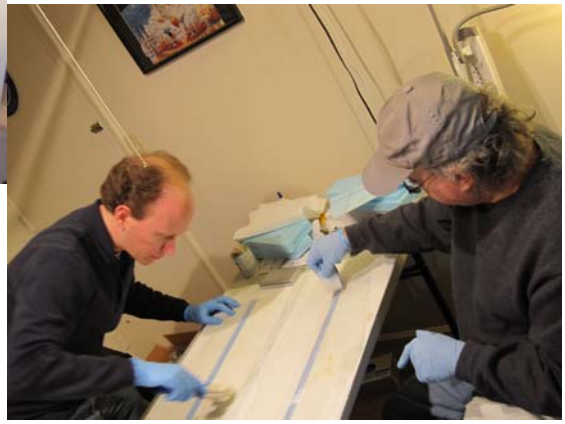
After the foam cores for the wings had been shaped and sanded smooth, it was time to wrap them in fiberglass. The first step was to cut pieces of 14-mil Mylar to cover the wing on both sides with about 1/2" border all around. The Mylar gives a smooth finish to the epoxy-saturated fiberglass without allowing the epoxy to stick to it. Next, we cut pieces of 0.5-ounce fiberglass matched to the size of the Mylar, to cover the top and bottom surfaces with a little bit of overlap around each edge. Additional smaller pieces were added in a second layer to give added strength to the center of the wing and each tip. The foam core was sprayed with a light coat of adhesive, then pressed to the fiberglass cloth to tack it in place.

The fiberglass cloth was then coated with epoxy, applied by brush and foam roller until the entire surface was saturated. To blot the excess epoxy, the wing was sandwiched between paper towels, and a rubber roller was used with light pressure to squeeze out the excess. The coated wings were then placed between the Mylar sheets and taped along the edges.

The wings were then placed inside a large plastic bag connected to a vacuum pump. The bag was lined with more paper towels to allow the vacuum to be distributed evenly and also soak up any excess epoxy. The vacuum pump took a couple minutes to reach the set point of 20" vacuum, then turned off. It would cycle on and off periodically to maintain that vacuum for 24 hours as the epoxy cured. That vacuum corresponds to about 10 pounds per square inch of pressure on the wing, or about 700 pounds per wing. It should result in a very smooth surface and a very strong wing.

1.

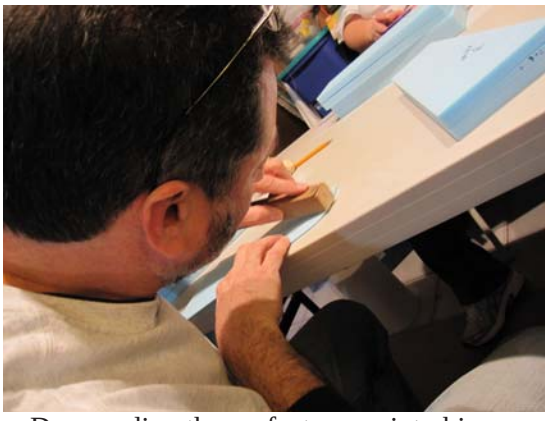
2.



3.

1. Dimitri cutting out the mylar for fiberglass template and vaccuuming. (photo by Kevin Johnson)
2. The mylar on the fiberglass for cutting. (Photo by Jennifer Ash-Poole)
3. Chris Kidwell and Bruce Canino brushing epoxy on the fiberglass before putting the wing on. (photo by Kevin Johnson)

Don Carson's input to RCBG Build



Don sanding the perfect curve into his wing. (photo by Kevin Johnson)

Remote controlled rocket boosted gliders are what rekindled my interest in model rocketry. I came at this with lots of boost glider experience from 30 years ago. I had built some balsa wings covered with tissue or silkspan, but fiberglass covered foam was completely foreign to me.

To come up to speed on the current state of the art for RCBGs, I turned to my mentor, Mr. Google, for help. I did not find a lot of current info, many of the sites cover models from 5-10 years ago. The sites most helpful to me were Yahoo groups (rocketboostgliders and contestRoc). There is plenty of info on covering foam wings with vacuum bagged fiberglass/epoxy. Most of the info is on model airplane sites. RCGroups.com was helpful for me.

Going in, this approach to building wings is a bit intimidating. There is a significant up-front investment in tooling and materials: the setup to cut foam wing blanks, epoxy, fiberglass, vacuum pumps and bags, Mylar, and carbon fiber reinforcement rods. At least foam is cheap.

Kevin's approach used a Food Saver vacuum system with their brand of bags that reduces some of the investment, if you already own one or like to have one to use for its intended purpose. I have one and plan to use it on my second wing set.

What seemed complicated at the time, is actually a pretty simple process once you have gone through it. I think what made our afternoon complicated was teaching half dozen noobs at the same time. The afternoon progressed with each step passed from Dimitre to Kevin or Jim who passed it around the room much in the manner of the old telephone relay game. As the build progressed we received updates from Jim's son, one floor up, as to the progress of the Capitals/Penguins hockey game. His audio cues were rather unmistakable as to whether the news was good or bad.

The other aspect of getting me ready to fly this model is to learn to fly radio controlled flying objects. Last year's group build of Rob Edmonds single channel D engine RCBG gave me just a taste.

Prior to flying Rob's model, I visited Hobby Works in Laurel and, on the advice of Scott Branche, I purchased a Hobbyzone Champ. It is a small electric powered RC plane and a very good trainer for someone teaching themselves to fly RC. I fly it in small parks and even in the neighborhood. It is a blast to fly and I get as much stick time in as I can. Hopefully, it will prepare me to fly this model. I don't expect to have to control the model in boost so I think that the Champ training will serve me well for controlling the gliding portion of the flight.

Many thanks to Jim for hosting us and, especially to Dimitre for the instruction and patience.

Kevin's wing in a single vaccuum bag. (photo by Bruce Canino

Dimitri placing paper towels for the big 4 wing bag.
(photo by Bruce Canino

The 4 wing table, with the big vaccuum.
(photo by Bruce Canino)

A Long Day of Outreach

By Jennifer Ash-Poole
All Photos by Ed Pearson

March 29 had several outreach events going on.

First up was Capitol College. They were holding an Aeronautical Engineering fair, to highlight the clubs and events that engineering students could get involved with at Capitol College. My friend, Sandy Antunes, is now a professor there, and had some engineering studnets take up the challenge of trying to land within the spot. His astronomy class built the rockets, but various engineering students, in teams, got 3 chances to land within a spot. Ole Ed Pearson came out to help me, and marked the spot up with our new cones. Out of the 3 teams, and 12 launches, 2 rockets landed within the spot, but not intact.

Dr. Antunes is hoping to start up a rocket club at the school, and will either become an annex of NARHAMS or start their own section. Several students were interested, so we will see.

A team working on their rocket.

The group watches what the other teams are doing to plan their next launch.

Next up, another collegue of mine, Paul Romani, has an engineering club at University of Maryland, College Park. They were scheduled to build Alphas the same day, in the evening. So off I went to find parking at UMCP. Building was supposed to start at 7pm, and I had 3 students. A few more trickled in, and if you find the picture at the April Goddard launch, Ole Ed took a great group picture of the students with their finished rockets. Some didn't show up until 8pm, so I had to hurry in getting them to finish their rockets.

I had put 2 hours in the meter, with it running out at 8:44pm, and proceeded to get a ticket at 8:52pm. I got back to my car at 9:05. But 7 students got rockets built, and they launched them at the April Goddard Sunday.

A student getting some last minute advice from Dr. Sandy Antunes

The winning team from left:
Larry, Jabari, Mark and Nayi.

Capital College Demo - March 23, 2012

by Ole Ed Pearson

This article discusses the demo launches held at Capitol College, Friday March 23. The occasion was called Jump Start Juniors Expo.

This is the name Capitol College gives its annual event in which hundreds of high school juniors visit the Laurel, Maryland, campus and meet with industry, government, and college representatives to talk about STEM academic or career possibilities.

Tom Bagg traditionally handles the flights, but last year and this, Tom was otherwise obligated. Tom and the college then tapped me for help again.

Alan Williams threw his hat in the ring as well and Jef Fineran volunteered to help at a club meeting. Jennifer Ash-Poole works at nearby Goddard, and I asked her to spare some time.

Originally the school wanted two demos, splitting the visiting students into two groups, but days before the launch we found the college was organizing three groups to rotate through invited speakers and exhibits. So we would have to put on three separate demos.

The resulting event worked like clockwork for the college and us. Jennifer, Jef, Alan and I arrived just before 10 am. Jennifer couldn't stay but came out to help setup. Six college kids helped us unload and carry NARHAMS Launch System 3 from the car to the field.

New equipment additions were recently acquired orange cones to mark off the spectator area and a fire flapper Jef purchased. These were all made possible through NAR's safety grant program.

After setup, Jennifer left and we did our first launch at 10:30 am for about 65 students from Charles H. Flowers High and Friendship Acedemy of Engineering and Technology. Jef and I helped load the models and did recovery (Jef far and me near). Alan worked the crowd, narrating and launching.

We did one rack for them and repeated the same procedure and type models for each of the other groups (Baltimore Polytechnical Institute, Deleware Technical Community College pre-college programs, TC Williams High and others)—next at 11:00 am and the last at 11:30 am. In total we launched for about 150 spectators.

A demo went like this: the first three flights were a mini-power series using Alpha IIIs—1/2A, A and B—all with streamer recovery. The fourth model wasa heliocopter type model—for racks 1 and 2 we used my monocoted-covered Apogee Helio-Roc (1/2A3-2T first time, A10-3T second launch)—you may have seen it debut at Mt. Airy in March; for rack 3 we used Alan's QCR heliocopter with an A8-3.

The fifth model was an Edmonds Deltie B showing a third type of recovery and the sixth model flown was a Quest Courier to demonstrate a payload model (carried an egg) and parachute type recovery. The first two Couriers were B6-2 powered and the third went with a C6-3. It looked a lot better with the C and because winds were light, it (the sustainer and capsule parts) were recovered.

So with one rack and in short order, we showed a variety of power, type of models, recovery systems and even kit manufacturers.

What really helped was preparing as much in advance as possible. Prior to our launch at Johns Hopkins last year, Jim Filler and Kevin Johnson put together some Alpha IIIs for demos. I added another three and we had a ready fleet of nine in a box ready to go before this event with two-1/2As, two As, and two Bs all marked for rack number and rods.

I didn't have time to make another heliocopter model, but Alan brought his as a backup—so we had two ready before the launches, and I had a needle already threaded and an engine prepped for a second prepartion and launch of the Helio-Roc.

Last year I lost a Deltie (regular mini-motor model) at Capitol so this year I had two for the event figuring I could have one spare in case a model flew away. Although intended for B motors, a Deltie B works fine with A8-3; you just lose potential altitude but add to chances in getting the model returned. My gliders always seem to go bye-bye. (That's a sad brag which probably speaks more on my pitiful recovery abilitiy than on craftmanship).

So all the Deltie flights were made on As. It was a good move to build two; the one I took time to trim better (it first flew stalling-somewhat at Westminster last year) went bye-bye in a near windless day. Jef spent a good while trying to recover it initially and I spent another hour later doing the same thing but still unsuccessfully.

We finished flying at noon and finished packing up a half-hour later. Jef left afterwards but Alan and I stayed around for a catered cookout. Then everyone left & I pounded the grounds looking for that glider.

It was a satisfying experience and fun working with Alan, Jef, and Jennifer to help the college's outreach program. Hopefully the students got something meaningful from their visit to Capitol.

Mid and High Power Engine Adapter

Article and Pictures by Tom Ha

I have a number of rocket kits that I have built to use their standard 38mm engine mount. Many of them are considered mid-power kits and are expected to fly on F and G engines. Unfortunately, the engine mount is based on Aerotech diameters and impulses, not on the Cesaroni (CTI) Pro-29 reloadables that I've now switched to. Around the same time as I discovered the joys of Cesaroni, I also found out about Aero Pack engine retainers. So I added the 38mm retainers and then discovered that I wanted to fly 29mm engines in them. The traditional Aerotech 38mm engines are in the H and I range, but Cesaroni 38mm engines are mostly I and J engine classes. The Cesaroni uses a longer and smaller diameter casing and reload to give the same impulse as the Aerotech engines. I don't really want to use I and J engines in rockets that are built for H engines. I also want to be able to fly the 29mm F and G reloads for smaller fields.

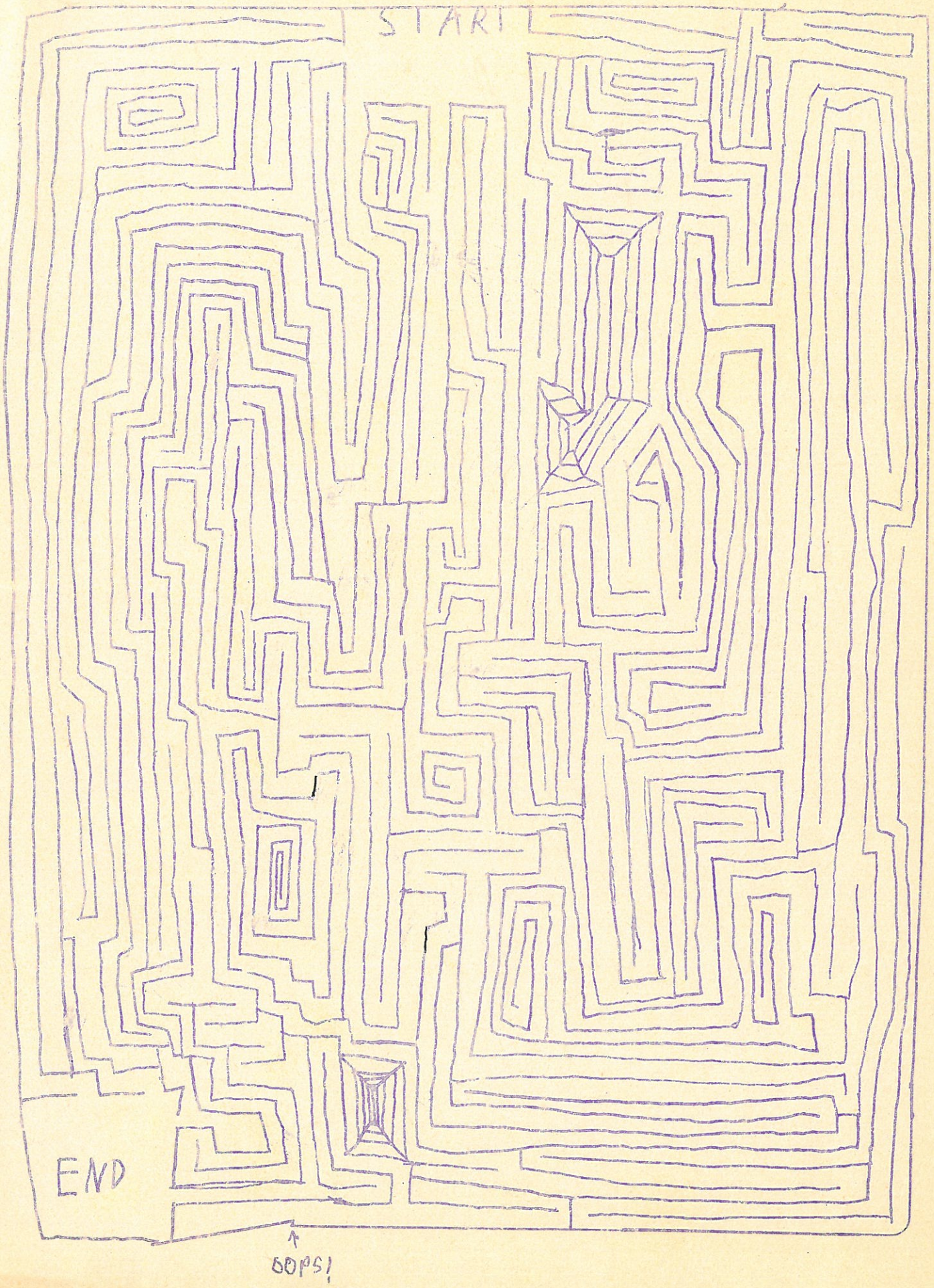
Standard Loc Precision motor adapter

The answer was to build an adapter to go from the standard 38mm mount to the 29mm mount. I decided that since I was already using the Aero Pack engine retainers, I would devise a double retainer. As you can see in the picture (right), I built an adapter, using the kit one from LOC Precision. I modified it to add the 29mm Aero Pack retainer (the black threaded ring on the end). What I didn't realize was that there wasn't sufficient space to fit the 38mm Aero Pack ring over the 29mm mount. So I had to do some judicious Dremel work to cut two small notches out of the inside of the 38mm ring (Picture, left). I did the notches off-center so that they would allow the 38mm ring to slip over the 29mm retainer but not weaken the ring as much as wider opposite notches would.

Centering ring dremeled

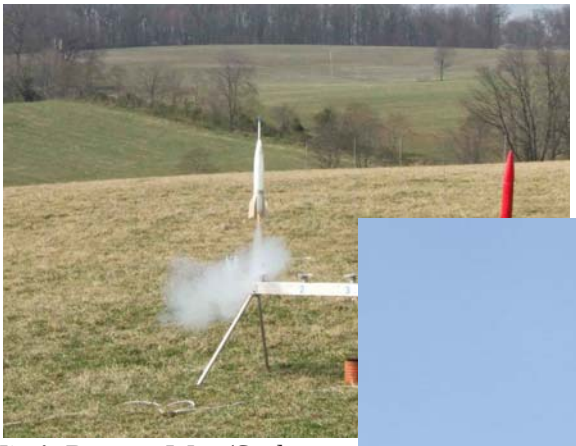
So the final product (right) looks odd, but it works very well (two piCtures below) and I don't have to use tape or Kaplow Klips, just insert the 38 to 29mm adapter and screw on the 38mm retainer ring, then fit the engine into the 29mm tube and screw the 29mm ring in place. This also means that when I get to a larger field and decide to fly Level 1 or 2 HPR, I can simply leave out the adapter and fly with the 38mm retainer alone. The rocket in the picture is my upscale WAC Corporal from ASP in beautiful primer gray. The other rockets that I plan to use with the adapter are a Convair MX-774, the Hawk's Hobby Super BOMARC, the Public Enemy Missiles 3" Performer and the BSD Thor 38.

MAZE #1 BLACKSTONE PSYCHOLOGY III

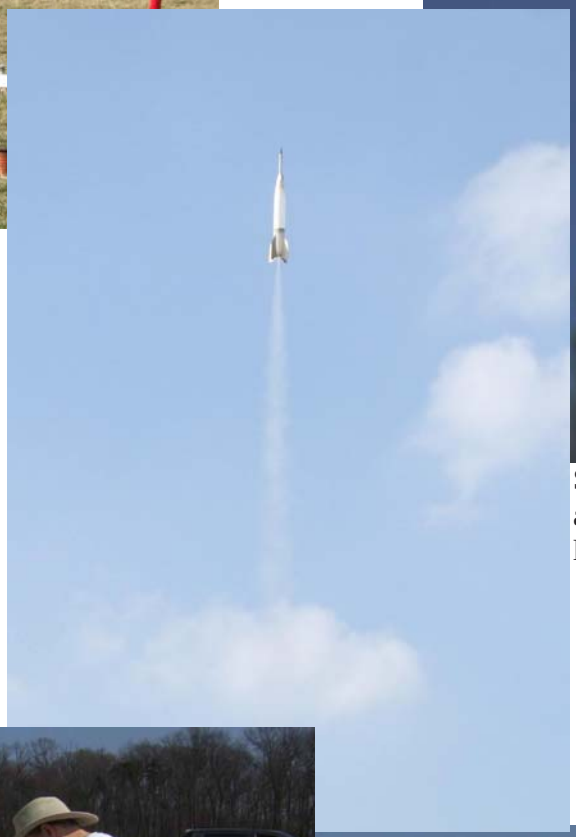


March Sport Launch Photos

(all photos by Trhomas Henderson)



Jim's Bumper Wac (Scale model for the internats) on the pad, and left, in the air surrounded by puffy clouds.



Something silvery and with a nice engine contrail launches.

Mike Kelley filling out paperwork and rocket being safety checked.

A green Alien Space Probe being safety checked.

March Sport Launch Coverage

by Jim Filler

Father and daughter wait for their flight
(photo by Thomas Henderson)

Saturday March 17th we held the monthly sport launch at Old National Pike Park. Our launch manager was noticeably AWOL something about a preplanned skiing trip. You know some people will do anything to get out of being the sport launch manager for the day! Alex Mankevich met me at storage and we proceeded to load up the truck with one rack and the away splitter. After getting the range set up, flyers started trickling in, and before to long we were beginning to wonder if we had made a mistake with only setting up one six position rack. We had a flurry of youngsters come through like a hurricane. Many of them flew 2 or 3 times on B & C motors that were giving my eyeballs a real workout. Thanks to Alex for helping with check in during the busiest window. Thanks to Tom and Maria Ha for working range duty in the later afternoon so I could get some flights in as well. We had a very nice day for March with temps right near 70 degrees. No sightings of any leprechauns or green beer, but we did see several green rockets fly in honor of St. Patrick's Day. Several volunteers helped to clean and pack up the range. The day ended about 4pm with 115 flights made with 2 staged flights, one 3 motor cluster flight and a total of 119 motors burned.

The breakdown went like this:

1/2A =1	D = 11
A= 16	E = 9
B= 35	F = 10
C= 32	G = 5

Look! In the background! A rare Rob Edmonds sighting! Oh, and a cool blue rocket takes off.
(photo by Thomas Henderson)

A Green rocket launched for St Patty's day.
(photo by Thomas Henderson)

Yep, you got it, *3* Goddard reports. Thank the Leap Year for that.

April Goddard Launch by Ole Ed

No fooling. The club led a great launch on April 1 at the NASA Goddard Visitor Center in Greenbelt, Maryland. Helping were Jennifer Ash-Poole, Michael Cochran, Ellen and Jef Fineran, Thomas Henderson, Alex Mankevich and your cub reporter.

The weather was nice, partially cloudy with little wind. The public put up 69 rockets, 30 of them loaners prepped by Alex. We had 14 new first-time flyers and 109 people counted.

About 10 models landed in trees but Thomas and Michael got all but about four back. One model landed inside Goddard's security perimeter and Jennifer retrieved it. One landed on the Visitor Center's roof and Jef got that one too.

The guys at the rack helping out.
(photo by Alex Mankevich)

Waiting in line. Not as bad as in years past during an April Goddard launch.
(photo by Ed Pearson)

Ed Noodling.
(photo by Alex Mankevich)

Jef, checking out a bad ignitor.
(photo by Alex Mankevich)

College Park engineering students can build rockets too!
(photo by Ed Pearson)

March GSFC Visitor Center Launch by Ed Pearson

More than 235 visitors came out to NASA Goddard on March 3 for the public model rocket launch. The weather was chilly, around 40° with winds going into the teens, and we launched from 1 pm to almost 2:30 pm. We went through 17 (six-rail) racks and put about 95 rockets into the air.

More than 30 of the models were from a stash of 40 loan-out prepared models. The rest came from four scout groups (BSA Troop 403 of Bowie, Troop 248 of Silver Spring, Cub Pack 499 of Silver Spring and Pack 460 of Kensington) and many families.

We saw a little bit of everything: A model that pulled the rod out of the rack and sword-fished into the ground, another model with a suspected understated time delay (A6-4) that discharged the nosecone after hitting the ground, a C6-5 cato (blow-through that cleaned out the motor casing) which gave the report of a detonation, a model landing in the GSFC Bldg. 3/14 parking lot, three more atop the Visitor Center's roof, and a dozen or so that found perches in the surrounding trees.

Fifty-four of the flyers got new flyer certificates and we passed out flyers for the July Apollo contest.

The club supported the activity with Alex Mankevich heading up the loan outs and preparing models in advance of the launch, Jennifer Ash-Poole and Kevin Johnson holding a building workshop for Troop 403 the week before the launch and Jennifer helping the troop prep and then performing safety check-in for everyone. Jef and Ellen Fineran helped the modelers at the rack with Thomas Henderson who also retrieved six of the models out of trees courtesy of Tom Bagg's extension pole. Your cub reporter narrated.

With weather less than ideal and this many people, the winter launches of December, February, and March portend big crowds this summer. Good job all.

Cub scouts prepping for launch.
(photo by Ed Pearson)

Alex during any Goddard launch, ready to loan you a rocket!
(photo by Ed Pearson)

Thomas, ready to get your rocket out of a tree.
(photo by Ed Pearson)

Those Cub Scouts ready for launch!
(photo by Ed Pearson)

February Goddard Public Launch by Ed Pearson

February 5. Super Bowl Sunday. Rain forecast for the Washington area. Snowed the night before (although it didn't daunt members from New Jersey, Pennsylvania, Virginia and West Virginia from attending the monthly club meeting). Who would come out to the monthly launch at the NASA GSFC Visitor Center, and would the weather hold?

At the meeting NARHAMSters Michael Cochran, Ellen and Jef Fineran, Thomas Henderson, and Alex Mankevich said they'd join your cub reporter at the visitor center, so at least we figured there would be six people there. We planned to do a straw rocket program as a backup if the weather prevented model rocketry.

Jennifer had helped a friend recover her place from a fire the past two days and wouldn't be there, but she provided a stack of certificates for new flyers who might come.

Visitors from NJ
(photo by Ed Pearson)

The visitor center opened on Sunday at noon. Prior to opening, I received a call at home asking about the launch and six more calls at the center while exhibits were being powered up. Normally one receives about one call, so something said there was going to be interest this football Sunday. Unusual indeed and it boded a crowd coming.

Alex too arrived before opening and started prepping models for lend outs. Thomas arrived soon after and helped. Mike came next, helped with setup and said he'd do the pre-launch model checks and rail assignment.

When doors opened we had visitors immediately. Every few minutes another family came with rockets in hand or asking about the flying. We had no scout troops and no birthday parties. Only families and onesies and twosies.

I gave the pre-launch briefing to about 60 rocketeers and family members. Thomas moved outside to help at the rack. Jeff and Ellen arrived and helped at the rack too.

The weather was good throughout, cloudy way up there, but light winds blowing from the North instead of the West as usual. No models had to be retrieved from neither the roof nor the main center's parking lot. A few were lost south of the visitor center in trees and beyond. It was chilly though with temperatures in the mid-40s.

About 45 minutes into the program, Alex came outside and helped with check-in and crowd control.

We launched until 2:30 pm—1/2 hour over the nominal stopping time. The center counted only about 90 visitors for the day but everyone who came seemed to be there to fly or observe. And with Alex's lend-outs, we got all the observers to participate too.

From behind the rack at the launch controller and PA, I could see all the rocketeers in line to my right on the sidewalk waiting for their turn. In front of me behind the ropes were the public spectators—five grandparents who choose the ropes for a clearer view.

After the launch we discovered Tiara, who staffs the center, gave out 42 new flyer certificates. Things were put away and the six NARHAMSters seemed to collapse into chairs in the auditorium while we discussed the day, warmed up and rested.

Dave Obler, prepping
(photo by Ed Pearson)

Postlogue: This was a heartwarming launch where the flyers were enthusiastic and the parents obviously appreciative. Families would come into the center usually in three-four per party so it seemed to this writer that on this day we had between 20-30 families come out for the event.

It was gratifying to see a family of five from New Jersey come down to launch…no loaners, they brought their own and they came specifically because of the launch.

In another case a man brought his daughter and her children to fly. The man is David Obler who works at NASA on the Aura, Aqua, Terra, and NPP spacecraft. In the late '70s as a high school student, he tended the grounds and helped at the center's tennis court. He'd come to the visitor center to get cold water and cool off from our air conditioning. He told me it was probably because of the visitor center that he got into the space business and now here he was bringing out his grandchildren. He flew a 20+ old rocket there which Alex/ Thomas helped prep and replace a dry rotted shock chord.

Come this spring and summer it is easy to forecast hundreds coming out for the program. Good job club.

February 2012 Sport Launch Report

Alex Mankevich – Vice Zog NAR# 86018

The Vice-Zog, cleaning up after rocketeers.

An unseasonably warm yet welcoming day greeted the rocketeers at the Mt. Airy field for the February Sport Launch. The advertised theme for the day was "Mid Power" or "Away Pad" day. It was nice to hold a February launch without precipitation of some frozen sort around to complicate things. The wind at times caused a slight hold during countdowns, but overall it was a good day for launching.

President Jim Filler's truck showed up at the Public Storage site (with Jim inside) precisely at 10:00 AM. Along with Jim Mier's help, we had the launch range set up just before the announced start time of 11:00 o'clock. We set up four, count 'em, four away pads for the mid power flights and one rack for the rest of the flights. The TARC teams didn't show up, so the away pads didn't get as much attention as I would have expected.

For years we NARHAMSTERS stood quietly by, withholding slanderous comments, trying not to roll our eyes, or even shake our heads as we watched Jim Miers fail time and time again to lose his Tomahawk beyond the distant tree line. Well folks, our long, unending wait is finally over! On the first flight of the day, Mr. Miers reached down deep, found his "A" game, reached for the stars and exceeded even his own expectations as he finally succeeded in achieving his long-standing goal. He threw up his well-traveled Tomahawk on a G38 in a mighty boost of magnificent smoke and noise. The chute opened up way up there in the sky, and set the rocket adrift towards the northern end of the field. It cleared the first line of trees with probably ½ mile of altitude to spare and was last seen comfortably clearing the tree line on the most distant hill. The last knowledge we've had of the drifting Tomahawk was the sound of air raid sirens blaring from Harrisburg, PA alerting its residents to some air borne 'threat'. We all extend our heart-felt congratulations to Jim Miers.

Two-stage rockets were all the rage that day as four folks launched their models. Alistair Andrulis and Scott Starry both sent up the Mongoose. Ari Silver-Isenstadt put up his Cosmic and Neal Parker launched his Full Betty.

The slender and soooooo long Mean Machine was another popular model. Zak Starry, Scott Starry and Jef Fineran all launched their Mean Machines on D-12 power. That engine was sufficient to get those birds straight into the air despite the fluctuating wind conditions.

Speaking of power, it was "Mid Power" day! Both our Jims distinguished themselves in this category. Jim Filler launched his Super Mini Bertha on an E-20. Jim Miers (in addition to the Tomahawk on the G-38) put up his Big Bert on an F-52 … which got outta there fast! Then, to the delight of all those present, Mr. Miers rolled out something called the 2011-02. This was a too-cool, two engine clustered flying spectacle of engineering powered by two E-20 motors. Both engines of course lit on launch, and his rocket soared upwards, seemingly to test the limits of our atmosphere.

A tally of the flight cards revealed a total of 59 flights. We ran the launch from 11:00 to 3:00 with just a few 'problem' flights. One chute didn't deploy, one rocket went unstable upon second stage ignition and one helicopter recovery device didn't spin. We also saw some quirkiness with some booster motors passing through the booster stage before igniting the second stage motors.

The tally of motors flown are as follows; ½ A3T – one, ½ A6 – one, A3T – 3, A8 – 3, B6 – 17, C6 – 19, C11 – 2, D12 – 8, E9 – 5, E20 – 3, F52 – one and G38 – one.

Ole Ed, Tom Ha and Mike Kelly all 'dropped by' during the course of the day to say 'howdy' and to witness the launch activities. I think they each got a little sun and fresh air, as well as soaked up the camaraderie that only seasoned rocketeers can share.

Jim Filler and Jim Miers both relieved me of launch manager duties so that I could grab some lunch and launch a couple of my own rockets. I thank all the kind-hearted folks who helped to break down the launch range. I also thank Ellen and Jef Fineran, Mike Kelly and Jim Filler for loading all the stuff into our storage cubicle.

From the King Zog:

April has arrived and for those of us here in the Mid-Atlantic, we can honestly say that spring did arrive early this year and for the most part, this past winter was very mild. This will make for a bumper crop of insects this summer ☺ The March sport launch was very well attended and could very well be an indicator of launches to come. I do want to remind everyone that as move into spring it does bring out the soccer games also. We must adhere to our self enforced policy of no large motors or large models to be flown while there is a game on the adjacent field to our launch area. We also require a second RSO on duty along the sideline of the game with an air horn and a FRS radio.

I want to also take a moment and remind our flyers and our RSO's that safety is everyone's first priority on the rocket range. Be mindful of the launch angle that is being flown. Does it make sense if a model launches in the direction the rod is placed at and for some reason no ejection causes the model to come in hot? Was the launch rod pointed toward an open field or the play ground? Be sure to use the entire launch rod when loading your model to fly. There is no good reason to use a clothespin to elevate your model 10"-12" above the deflector. Call for a heads up when you have a model making its first flight, any clustered model, staged model or large model being flown.

The club has numerous activities and launches coming up, I hope to see many of you there. Remember safety is every one's job number one.

Jim

Calendar for the next 3 months!

Apr 7	5:30 – 9 pm	Monthly meeting	College Park, MD	Refreshments: Maria Ha
	Kit bash, Show & Tell theme: previous kit bash models			
Apr 15	noon – 5 pm	Rockville Science Day	Rockville, MD	
Apr 21	10 am – 4 pm	Sport launch	Mt. Airy, MD	Launch Manager:Tom Ha
	Ping Pong ball spot landing fun event (Maria Ha)			
	Land a Ping Pong ball on top of a rocketeer's head, win a prize!			
May 5	5:30 – 9 pm	Monthly meeting	College Park, MD	Refreshments:Kevin Johnson
	Contest building session, Learn Kevin's technique for Egg lofting!			
May 6	1 – 2 pm	Goddard public launch	Greenbelt, MD	
May 12	7 am – 5 pm	TARC 2012 Finals	The Plains, VA	
May 19	10 am – 4 pm	Sport launch	Mt. Airy, MD	Launch Manager:Chris Kidwell
	ABC triathlon fun event (Chris Kidwell)			
Jun 2	5:30 – 9 pm	Monthly meeting	College Park, MD	Refreshments: Mary McCoy
	½A Cluster Altitude building session (Jim/John/Chris), How to do 1/2A cluster using just MicroMaxx			
Jun 3	1 – 2 pm	Goddard public launch	Greenbelt, MD	
Jun 16-17	10 am – 4 pm	ECRM-39 Regional Meet	Mt. Airy, MD	Launch Manager: Jim Filler
	Events: Classic Model, Set Duration (60 sec), ½A PD MR, B BG MR,			
	½A Cluster Altitude (with altimeters), Open Spot Landing			
July 1	1 – 2 pm	Goddard public launch	Greenbelt, MD	
July 7	5:30 – 9 pm	Monthly meeting	College Park, MD	Refreshments: ALL
	Pot Luck Picnic (Mark Wise), Don't forget to try ole Ed's roadkill stew!			

NARHAMS 2012 CALENDAR

Apr 7	5:30 – 9 pm	Monthly meeting, Kit bash (Maria Ha)	College Park, MD
	Show & Tell theme: previous kit bash models		
Apr 15	noon – 5 pm	Rockville Science Day, Rockville Community College	Rockville, MD
Apr 21	10 am – 4 pm	Sport launch, Ping Pong ball spot landing fun event (Maria Ha)	Mt. Airy, MD
		Land a Ping Pong ball on top of a rocketeer's head, win a prize!	
May 5	5:30 – 9 pm	Monthly meeting, Contest building session (Kevin Johnson)	College Park, MD
		Learn Kevin's technique for Egg lofting!	
May 6	1 – 2 pm	Goddard public launch	Greenbelt, MD
May 12	7 am – 5 pm	TARC 2012 Finals	The Plains, VA
May 19	10 am – 4 pm	Sport launch, ABC triathlon fun event (Chris Kidwell)	Mt. Airy, MD
Jun 2	5:30 – 9 pm	Monthly meeting, ½A Cluster Altitude building session (Jim/John/Chris)	College Park, MD
		How to do 1/2A cluster using just MicroMaxx	
Jun 3	1 – 2 pm	Goddard public launch	Greenbelt, MD
Jun 16-17	10 am – 4 pm	ECRM-39 Regional Meet (Jim Filler)	Mt. Airy, MD
	Events: Classic Model, Set Duration (60 sec), ½A PD MR, B BG MR,		
	½A Cluster Altitude (with altimeters), Open Spot Landing		
Jul 1	1 – 2 pm	Goddard public launch	Greenbelt, MD
Jul 7	5:30 – 9 pm	Monthly meeting, Pot Luck Picnic (Mark Wise)	College Park, MD
		Don't forget to try ole Ed's roadkill stew!	
Jul 15	12pm-4pm	Apollo Contest - Goddard	Greenbelt, MD
Jul 21	10 am – 4 pm	Sport launch, Maryland Funny Meet 3 (Mary McCoy)	Mt. Airy, MD
Jul 28 –Aug 3		NARAM-54	Muskegon, MI
	Events: R&D, G ELA (D for A/B div) (with altimeters), Classic Model, Sport Scale, A HD,		
	B BG, C SD MR, A PD MD, Set Duration (60 sec), Open Spot Landing		
	Bonus points for spot landing on the port-a-john, or any of the lakes around the launch site.		
Aug 4	5:30 – 9 pm	Monthly meeting, Open building session (Alex Mankevich)	College Park, MD
Aug 5	1 – 2 pm	Goddard public launch	Greenbelt, MD
Aug 18	10 am – 4 pm	Sport launch	Mt. Airy, MD
Sep 2	1 – 2 pm	Goddard public launch	Greenbelt, MD
Sep 8	5:30 – 9 pm	Monthly meeting, Elections, Masking techniques (John McCoy)	College Park, MD
	Show & Tell theme: night launch models and electronic		
Sep 15	10 am – 4 pm	Sport launch, German theme, Octoberfest picnic, Night launch	Mt. Airy, MD
Oct 6	5:30 – 9 pm	Monthly meeting, Ole Ed movie night (Ed Pearson)	College Park, MD
	Show & Tell theme: odd roc models		
Oct 7	1 – 2 pm	Goddard public launch	Greenbelt, MD
Oct 20	10 am – 4 pm	Sport launch, Halloween/Odd-Roc theme	Mt. Airy, MD
Nov 3	5:30 – 9 pm	Monthly meeting, Planning meeting	College Park, MD
Nov 4	1 – 2 pm	Goddard public launch	Greenbelt, MD
Nov 17	10 am – 4 pm	Sport launch, Glider theme and trimming sessions (Kevin Johnson)	Mt. Airy, MD
Dec 1	5:30 – 9 pm	Holiday party, Greenbelt Community Church	Greenbelt, MD
Dec 2	1 – 2 pm	Goddard public launch	Greenbelt, MD
Dec 15	10 am – 4 pm	Sport launch, Holiday theme	Mt. Airy, MD

A note for our readers: Please remember what is the second month in this issue. In fine NARHAMS tradition, there are a few April items.

ZOG - FORTY THREE
1404 SWEET CHERRY COURT
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Launch Schedule

SPORT LAUNCH
April 21, 2012
Mt. Airy, MD

PUBLIC LAUNCH
Goddard Space Flight Center
Visitor's Center
May 6, 2012

TARC FINALS
May 12, 2012
Great Meadow, VA

SPORT LAUNCH
ABC Triathlon Event
May 19, 2012
Mt. Airy, MD