THE 206-43

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

Mar/Apr 2013
Vol 35 Number 2

Two rockets ready to fly at the March sport launch. This was the first sport launch in 3 months, due to rain, snow, fog, locust...

THE ZOG-43

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Volume 35 ***Number 2***
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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.

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.

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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****

Welcome New Members
Guiseppe Cimmino
David and Connor Dennison
Jason, Riley and Lydia Zabroske

Renewing Members
Alan Williams
Frank Panek
Alistair Andrulis
Anne Runow
Richard and Richie Lempicki

Rain, Rain go away! We NARHAMSters wanna play.

By: King Zog (aka Alex Mankevich)

Our glorious 2013 launch calendar has gotten off to a less than stellar start. For the first time in recent memory, all (non-Goddard) launches scheduled for the months of January and February have been either postponed or cancelled. This record of cancellation includes the scheduled launch in February at the Carroll County AG center. Our NAR section prides itself in our gruff, hardy and fearless members who chortle at wind chill, spit on snow cover and dismiss dreary skies. Fortunately, from underneath our rough exterior sometimes emerges a deep, deep buried intelligence that surfaces to assure that we will continue to promote safe and rules-abiding launches.

For the record, we had a debate back in May 2011 (see Business Meeting May 07, 2011) as to the protocol by which the scheduled launch manager would determine if the launch should be postponed or cancelled. Our discussions resulted in more transparent guidelines and protocols so that all members would be informed as to the weather sources that are reviewed. Our decision was initially to aim to decide on the 'go, no go' for launch around 6:00 PM on the Friday preceding the launch. Subsequently, the cut-off hour had been re-set to 12:00 noon on Friday. This permits ample time for person to re-schedule their plans for weekend, hopefully to take care of business so that by the following rain date weekend they would be free to participate in the postponed launch. We routinely apply to the Frederick County Parks and Recreation to schedule rain dates for the Saturday following our normal, fourth Saturday launches.

Our webmaster, Dr. Kidwell, had creatively placed a banner atop our website that streams live The Weather Channel's current conditions and immediate outlook for Mt. Airy. Clicking on the 'Mt. Airy, MD' link will take you to the hourly forecast of expected wind speed and precipitation. Another source the launch manager taps into is the weather.gov site which is operated by the National Weather Service - National Oceanic and Atmospheric Administration. This site provides a seven day forecast of the expected wind speed and precipitation.

The weather outlook is judged in accordance to the rules outlined in the Model Rocketry Safety Code. Particularly, the *Launch Site* provision which states that model rockets will fly "in safe weather conditions with wind speeds no greater than 20 miles per hour", and the *Flight Safety* provision which states that model rockets will "not launch … into clouds". Obviously, low-hanging clouds and/or foggy conditions will bump up against this provision.

Apart from the pure weather related issues, the launch manager will also assess ancillary issues such as the field conditions, travel conditions and exposure of the launch equipment to adverse weather. The grass cover at the Mt. Airy field is becoming mature, however soggy grass can trap motor vehicles. Apart from the vehicle owner's expense of towing, NARHAMS had in the past received a bill from the Frederick County Parks and Recreation to restore the ruts in the grass from a stuck vehicle. No launch manager wants to 'tempt' members to undertake unsafe travel in foggy or icy road conditions simply because the launch is going ahead as scheduled. We also don't want to invite accelerated wear and tear on our equipment due to moist, wet or icy conditions.

Hopefully, the weather will be "blue skies from now on" for the rest of our launch calendar. I look forward to the month when I can sit back in my favorite lawn chair under the cool shade of my pop-up tent, sipping on an ice-cold beverage straight out from my nearby cooler, accompanied by the soothing voice of the launch manager resonating in my ears. Oh, and I might prep a rocket or two for launch in the meanwhile.

Feb and March Goddard launches in Pictures!

FEB - The crowd for the launch.

FEB - Ed filling in while Jennifer goes and gets rockets from the other side of the fence.

FEB - Two core samples.

MARCH -A rare sighting of Ward at a Goddard launch.

MARCH - A rack full of rockets.

MARCH - Richard doing safety check in.

Feb pics - Jef Fineran
March pics - Alex Mankevich

March Meeting

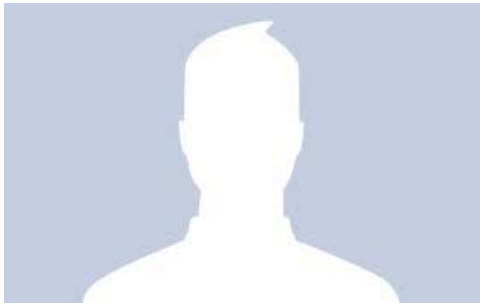
Jennifer, showing off some models.

The March meeting was a discussion of the upcoming ECRM events by several club members.

Jennifer Ash-Poole discussed 1/4A helicopter. She brought in a couple of models and copies of several plans from the NAR website: http://www.nar.org/competition/plans/helicopter.html . 1/4A is a 13 mm motor, so the plans she handed out were for the Rotaroc13, Whirl-A-While and the Rotacrock. Jennifer discussed the fact she didn't follow one plan, but varied it a bit, depending on whether she had the stops for the blades, or used Kevlar underneath for the stops. John McCoy had several models as well for the members to compare. The Rotacrock plan uses blades that have been soaked in water and then formed on a PVC pipe. Jennifer uses those for her FAI models, but doesn't think it is needed for NAR competition. She also noted that she sometimes she had to crash a new model, rebuild, and then it works perfectly.

Kevin Johnson, via email and Jim Filler's models, talked about A Rocket Glider. Here is the email:

RG are models that go up under rocket power and come down in a glide supported by wings. They cannot split into more than one part. Everything that goes up must come down together.



Kevin, via email, talking about rocket glider

Designs that do well in this class are slide wing, or slide pod designs. They can be built light, and have a good track record. Slide wings have a wing that moves from a rear position that moves the CP behind the CG to a forward position for glide using a rubber band to pull the wing towards the nose.

A slide pod design has a sliding tube for the motor mount in the front that moves backwards on motor burnout putting the CG closer to the CP for glide. Also using rubber bands.

Examples of both of these can be found at http://www.nar.org/competition/plans/rocketglide.html

There are a couple of other types of RG you could try as well. One is the moving elevator type where the tail has an elevator that is held down flat for boost, and then pops up for glide via a small elastic or spring.

Another is a variable geometry wing where the wing pivots or folds from closes to open. Both of these can be more complicated, and the extra mass in their mechanisms can hurt you in this power class

At this impulse you will typically want a model with a max span of about 12 inches. More than that and the drag and weight are too much.

Generally you want to use light contest balsa for the wing and take the time to sand in a good airfoil. Spruce is a good choice for booms because it is light and strong.

Trim your gliders with an expended motor or you will have a very nose heavy glide.

Pay special attention to motor retention, and don't forget to hook up your rubber bands before launch.

Go build something and have fun! - kj

(Article continued on Page 14)

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My adventure in mid power rocketry

By Jef Fineran NAR #90633

I always wanted to fly some of the “bigger” rockets, so when the opportunity presented itself to buy a half built LOC-IV for a decent price, I naturally jumped on it. A few months before, my wife and I attended one of MDRA’s Red Glare launches on the eastern shore, and I was really impressed. I have had the rocket bug for a long time, so the thought of going to watch even bigger rockets fly sounded like a pretty good prospect for a Sunday road trip. This was a totally different class of rocketry that I had never taken part of in before, and after seeing this festival of APCP recycling, I knew my wallet would be screaming for help. Ellen might have been screaming too. An understanding, hobby friendly wife is always a plus…

I started doing a lot of reading on the internet shortly after getting this beast – to date the biggest rocket I have ever owned, except maybe for an Estes Mean Machine or an Executioner, flying on black powder motors. I did try An E20-4 SU motor in an Estes Tomahawk once. When the ejection charge fired, it separated the chute and the nose promptly from the airframe, which appeared to be doing 200 MPH (at least it seemed like it). When I look back, I have to wonder, what I was thinking? A 4 second delay? Really? I hung up the serious mid power idea for a while. Whoever got the single E20-4 motor in what was once a 2 pack at the Christmas party – you’re welcome.

Motor case selection is a big decision, mainly because of cost. Single use motors get expensive quick, and there are plenty of choices out there in the E-G class reloadable motors. I found the Aerotech RMS series the best compromise between cost, flight performance, and availability of reload kits on the market. Cesaroni, the other big competitor in the mid power market, I found to be a fair bit more expensive in my own opinion. I bought the 24/40 and 29/40-120 cases and held on for dear life.

The motors themselves are not hard to use. They do require an attention to detail. They seem to work beautifully when properly assembled. They also seem to CATO beautifully when not properly assembled. My best advice being new to RMS motors is (I know, men don’t like hearing this) READ THE DIRECTIONS.

Another good idea is a good case to keep all your motors and reload motor sets in. Ammo cans work great.

Jef's Adventure cont

The components of an Aerotech E18-7 reload kit-plenty of little pieces to lose…

See all those little bits and pieces in the photo? One little O-ring or a spacer being out of order can ruin your day, or worse off someone else's. If you're not sure of yourself, seek help, and have fun – safely!

I finally got the LOC finished off and painted the way I liked, had factory fresh RMS cases in hand, and a single G64-4 burning a hole in my pocket. Now the really fun part…Where do I fly this thing? That can be more of a challenge than anything else in rocketry in the DC/Baltimore areas. Thankfully, a friend came through and got me on a decent sized farm one day before all loss of sanity occurred, or what little of my own happened to be left.

I really have to admit, the mid power size rockets have always been my favorite. They are just big enough to really give you the feeling of launching something with some real power, but not so big they require motors that are $1,000 each and a trailer to get to the launch site. Not to mention, a second mortgage to build a 2,500 square foot garage to house your rocketry related vehicles and whatnot. It also serves as a second home if the other half throws you out. Remember the understanding wife? I hear there's truth to that rumor…Thankfully, I haven't had to learn the hard way.

Construction techniques are also a bit more of a challenge. Everything is bigger. More glue, more sanding, more paint. Speaking of paint - I am now bilingual. Thanks to figuring out how to paint a LOC-IV on a 3/8 inch piece of dowel. Don't ask how many letters are involved in said linguistics. If you HAVE to know, yes, it's less than five.

Remember that miracle of technology called the internet? Use it. There's a lot of good info out there. There's also a lot of garbage out there. Your fellow club members are many times your biggest help. Thank you, Jim Filler and Kevin Johnson. Both of you helped me tremendously in the start of this little adventure. I also owe an even bigger thank you to my wife Ellen, for all the times I stunk the house out with god only knows what.

So I guess you may be asking yourself if it's really worth all this trouble and extra expense. Those White lightning motors almost seem to scream when they let loose. It really brings a sense of excitement to watch something you put all that money, time and effort into scream into the sky on top of two feet of flame. The feeling of the magic seeing your first Alpha is still there, it's just ten times bigger. Is it worth it? Damn right it is…

Sport Launch 03.23.13

The author, looking cool, or cold.

It was a dark and stormy night. Well, it might have been, but the day was bright and mostly sunny, with only those dreadful winds to keep it from being a perfect launch. Turnout for the club portion of the launch was light intially, but it picked up after the first hour.

Fifteen rocketeers and three TARC teams flew a total of 52 times at our launch. I will add a disclaimer that all stats are from the flight cards that made it back with us. I think we have all of them, but there may be a couple more lurking in some other container. The smallest rocket engine was a 1/8A flown by John E. McCoy Sr. and the largest was the mighty G78 flown by Dick Moran. Each of these flights was memorable for their own reasons. John's flight was for the ping-pong ball spot landing contest (see separate write-up), and Dicks was one of only two flights that did not deploy (at least in sight of the RSO).

The TARC teams flew E and F class engines and seemed fairly excited to be there and be flying their rockets. I know of at least one that landed well beyond the tree line up the hill, and their return with at least part of the rocket was pointed out to me later in the day. McKinley Technical High School's team was there and was supported in their efforts. Mark Wise had given us a heads up on their possible attendance. McNamara's team was there flying the Mighty Mac, ably mentored by Jim Miers. The TARC teams have a lot to be proud of with the engineering, design and construction work that went into those rockets.

The Nixon family working on a science project.

Other rockets ranged from kits like the Fat Boy flown twice by Richard Crisco and the Estes V2 flown twice by Jef Fineran to scratch builds like John McCoy's rocket whose flight was left-over from February's themed launch, the "Love Your Groundhog #426 Odd Roc Flying Critters Flight #6", which also won for the longest name of a rocket. It certainly helps to have fine writing when filling out a flight card like that one! Maria built the SEMROC Moon Glow, painted it peach and called it the "Harvest Moon". If anyone wanted a great assortment of designs and kit vendors represented, there was certainly something for everyone at this launch!

Your launch co-manager, Maria Ha, was able to eke out the highest number of flights by a rocketeer with six flights, though she would not have had that distinction if Sam Nixon hadn't allowed his sister to put her name on some flight cards. Sam was flying a set of the Athena rockets on A8 and then B6 motors, working on a science fair project. His Dad Conor was there to give him an assist.

The engine stats for the launch included one micro max, eleven A8's, fifteen B6's, six C6's, three C11's, eight D12's one E15, two E20's, an E28, an E30, an F26, an F50 and a G78.

Lee Williams' "rocket red" model.

All photos by Maria Ha

Mike Kelley hooking up a rocket.

Jef seemed to have some trouble with names, flying the unnamed rocket as well as the "Estes ?" rocket. Jennifer Ash-Poole made sure that those of us in the kitbash contest last year knew that she flew her kitbash rocket, flying the "Too Late Kitbash" two-stage rocket on a B6-0 to an A8-3, for a successful flight. Now she's qualified to enter the contest judging. Too bad it was held last December! To give her credit, she did have the rocket built for the contest judging, and this was the first launch since last December for her to fly her rocket.

Maria recalls her ping pong ball spot landing flight. Her coat pocket coughed up a red ping pong ball, otherwise she wouldn't have recalled whether her ball was red or blue (we didn't use white ones due to difficulties finding them). Maria's snowball didn't eject (perhaps it was shy), so in spite of her very close landing of the rocket to the snowball catcher, she was disqualified.

Maria built a rocket for this launch, so I knew that we would have a launch, even if it was one flight. Her Shamrock and Thistle rocket was announced to the crowd with particular attention being drawn to the purple/thistle colored nose cone, the shamrock shaped green fins and the gold body tube (no leprechauns were harmed in the building or flying of this rocket).

Lee Williams flew five flights, including the "rocket red" flight that gave all of us time to watch it. The flight up wasn't anything special, but a shroud line caught on the rear of the rocket on descent, so it didn't really descend for a while, getting caught in a beautiful thermal and hanging with a sideways rocket under the chute for what would have been a perfect duration competition flight. Do I hear ECRM calling Lee back?

Maria had the last flight of the day, with the Shamrock and Thistle rocket on an A8-3 motor. Maria also was able to RSO and launch lots of rockets without Tom (me) taking it over, as she clearly believed was the case at the previous launch we co-managed.

The things that really stand out about this launch were the help from so many people, from set up to tear down, and help in between. Another area was the communications that happened prior to the launch, where we were given lots of notice of people and teams coming out. That helped us gauge the interest and make sure we set up both racks plus away pads, plus just have a better feel for the launch.

Speaking of help in-between, Maria would like to thank John McCoy for sacrificing a micro max motor as a launch lug for her rocket. While not as successful, Maria also sacrificed (without her knowledge at the time) the screw eyes from one of her rockets to give a TARC team better mounting points for their cotton string shock cord, which I then successfully encouraged them to replace with Kevlar cord from my supply. Unfortunately, the one screw eye was ripped out of the airframe during flight.

Finally, Maria and I would like to thank our sponsor, Chap Stick, but especially the following: Dick Moran, John McCoy and Alex Mankevich for helping set up. John for the new controller wires that are very nice and such an improvement over the old ones. Jennifer Ash-Poole for the lunch call and subsequent delivery. Kevin Johnson and Jef Fineran for taking over the controls and letting us have a break (mostly from the wind). Alex, Richard Crisco, Jennifer and Jim Miers for help with the teardown. We know we missed a couple names here, so please let us know and we'll give you a thank you in the next issue!

The Shamrock and thistle Rocket from Maria Ha

The Great Snowball Spot Landing Contest of 2013

Reported by Alex Mankevich

The snowball spot landing contest was originally slated as the launch theme for the January 2013 sport launch in Mt. Airy. The lack of Park's approval for our original launch date, then inclement weather on our rain date conspired to cancel this contest during January.

It was decided to combine the cancelled snow ball spot landing contest with the ping pong ball spot landing contest which was scheduled as the theme for the March 2013 sport launch. Fair weather finally blossomed to permit both contests to be held during the March sport launch.

The target for the snow ball spot landing was a wire mesh waste paper basket mounted on a four foot high rod. Contestants were instructed to land their Styrofoam ball (i.e. the snowball) within the 14 inch diameter of the wire basket. No rim shots or rebounds were permitted – 'nothing but net' was strictly enforced.

Two champions stepped up to the challenge. Maria Ha represented all that is good, honorable, decent, charitable and nice in the world, and Alex Mankevich who represented a somewhat opposing viewpoint. Our two champions went head-to-head in a classic battle of the forces of light versus the forces of darkness.

After the rockets blasted off, the smoke cleared and the Styrofoam balls slowly drifted down to earth, an undisputed champion had been revealed. Maria Ha had won. Maria can now deservedly enjoy all the bragging rights, honors and privileges accorded to the Snow Ball Spot Landing Champion of 2013. But, friends don't worry, Alex lives on to fight another day.

The orange basket is for the Snowball Spot Landing.
The ping pong paddle is for ... duh, the Ping Pong Ball Spot landing.

Ping Pong Ball Spot Landing or, An Exercise in Measuring

by Tom Ha

The 2013 Ping Pong Ball Spot Landing event was held at the NARHAMS Sport Launch at Mount Airy on March 23, amid light turn out and strong winds. Perhaps the turn out would have been better if I had mentioned the grand prize.

The rules to this contest are simple. Fly your rocket to any altitude with your choice of rocket engine. Make a safe flight per the RSO and the Safety Code and spit out a provided ping pong ball from inside the rocket. Try to land the ping pong ball on the spot that was randomly selected at the start of our launch. You get one attempt per person and the flight has to be declared on the sport launch card for your flight. There's no entry fee, and you can even keep the ping pong ball if it helps you get over a poor performance!

I had placed an actual ping pong paddle as the spot, holding it off the ground with the upright from one end of a ping pong table net. If anyone had actually hit the paddle with the ball, I was willing to hand over $100 cash on the spot. That was for the first person to do it, all those that managed to do it after that would receive $50 cash. Maybe next year I'll run the same contest, so keep an ear out for a return of this contest and these prizes.

This year there were only six entrants. There were no disqualifications for anyone and the range of distances were pretty large, including Kevin Johnson's in his Sky Torpedo rocket that just made it inside the 100 foot reach of our measuring tape. In first place, the winner of the 2013 contest is Richard Crisco, flying his Fat Boy rocket. Richard has won his choice of either an Estes Dark Star rocket kit, or payment of his entry into the 2013 kitbash contest. Richard won with an incredible effort that landed him at 44' 1" from the paddle.

In second place, our very own President (and always a contest entrant), Alex Mankevich brought his ping pong ball to a distance of 62' 5" from the paddle flying his Snowflake rocket. Alex won a SEMROC Starfire rocket kit from the Ha family vaults.

In third place, flying his "Ping Pong Ball Lofter #3926", John McCoy took the honors with a distance of 76' 6", which just barely made it inside the distance achieved by Maria Ha flying her Bumble Bee rocket, at 76' 8". John has won a SEMROC Sky Hook kit, suitable (perhaps) for a micro max cluster attempt.

This contest is just one of many that are held by NARHAMS. I like to support these fun contests because they offer another reason to come out and fly, and everyone enjoys the relaxed version of competition and the bragging rights that go with a win. Thanks to everyone that flew and good luck next time!

Classified Ads

WANTED: A big, big field, needed in late July, early August 2014. NARAM-56 CD
WANTED: Afterburners for '73 VW bus. Must look stock, kj.
NEEDED: 2 Rooms for rent, need to get rid of adult children still at home, J. Filler
YARD SALE: Cleaning out the basement, everything must go! Ole Ed
FOR SALE: Corn field, will trade for sod farm, Frederick County Dept of Parks
FOR SALE: Rocket motors, all smaller than C. Need money for Disney vacation - E. Fineran
FOR SALE: Rocket motors, selling everything bigger than a B, can't find a decent field, B. Ferrante
LOST: 20 years of flying rockets, reward if found. D. Carson

Competition Comes to Carolina
A visit to the ROCC Monthly Launch and First NAR Contest

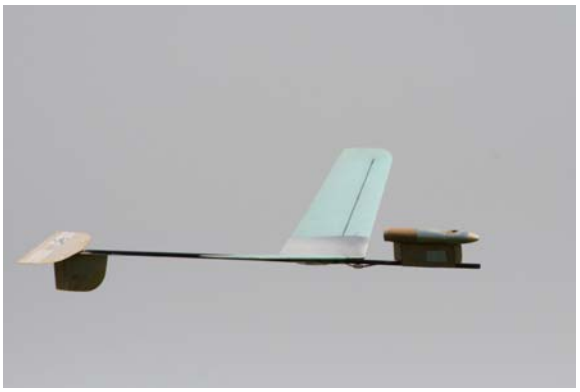
Don Carson, NAR#11069

After three months of weather delays, NAR competition finally came to central North Carolina on the weekend March 16-17. The Rocketry of Central Carolina (ROCC) club held their first NAR contest, during their regular monthly launch. The competition consisted of B Cluster Altitude (using altimeters) and 1/2A Boost Glide. In addition, there was a non-NAR event, C-engine Golf Ball lofting (altitude). Over the course of the weekend there were 153 flights on motors ranging from 1/2A to J's.

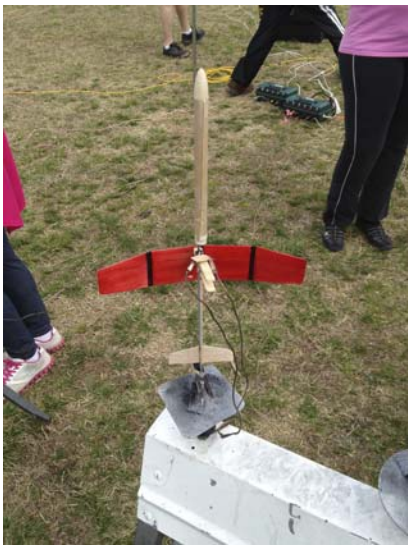
Saturday was a wicked windy day, so I opted to wait until Sunday to go to the event. My morning began early, on the road at 6 a.m. for the 3 1/2 hour trip. At about the halfway point a breakfast stop featuring coffee and a ham biscuit (which should be the official NC state breakfast, if it isn't) was a good break. With coffee coursing through a system that hadn't seen caffeine in 3 years, the rest of the trip was a breeze (a buzz?).

ROCC is both a NAR section and a Tripoli Prefecture and they fly low, medium and high power stuff on a beautiful field rented from a farmer near Charlotte, NC.They also get TARC groups flying there. The range is set up on a grass airstrip used by local farmers. Unfortunately, they lose the use of the field during the summer, when the crops are growing.

Sunday began fabulously, warm and calm. I arrived around 9:30, met some of the club members and helped them finish setting up the range. I met Sandy Houston, ROCC Senior Advisor and the Contest Director and got myself registered. There were many MPR and HPR flights. Some of the high power flights actually landed back in the launch site!



There were ten competition glider flights. Sandy got a beautiful flight in the calm of Sunday morning out of an Estes Tercel for the winning time. I put up my first BG flight and it shredded the wing, on a 1/2 A! I decided to launch my Ravenling RCRG while a coating of CA cured on my backup glider's wing. The Ravenling generated a lot of interest, there were a few remote control airplane pilots there, but none had seen or flown rocket boosted gliders. I may have sparked some interest in building these down there. I put in three flights, an A and 2 B's. There were a total of ten BG



flights. My second flight was launched at the end of the day with a stiff breeze. It boosted very high, was tossed around a bit and ended up drifting into the woods. The time was second best, but I had no returned flight. Doc Russell ended up finding and returning my glider at the end of the day.

There were 16 B Cluster Altitude flights. Altimeters were used to determine height. Most of the B Cluster Altitude models were built around five engines stuffed in a BT-80 tube. I used a BT-20 with four external pods, Quest igniters, and got a much higher altitude(338m). As you can imagine, some folks had trouble getting all five engines lit. The most successful strategy seemed to rely on Quest Q2G2 igniters.

C engine Golf ball lofting had many unique models. First in the went to Michael Strunk with 670 feet. This Doc and his golf ball lofting model.

The ROCC crowd was a very friendly bunch. With Roy and Doc running the range, Sandy running the contest and Ralph running the grill, everything went smooth. Jason and his son helped me look for my BG in the woods and fields beyond, including showing me the slippery log that you walk to cross the small river to get into the woods!

I had a great time and will be back.

Alan, talking in front of some sport scale models.

March Meeting (continued from Page 5)

John McCoy was up next with how to build a 1/8A Parachute Duration model. He went over the various types of parachutes you can use to stuff into the tube, what to make your tubes out of, where to source the supplies for this and other contest models and a different recovery wadding to use. (Teflon tape!) John had various models to show as well.

Alan Williams talked next about sport scale. He had a few models of various sizes, and talked about the data packet, and actually more on how to judge it. He had members come up with a yard stick and was asking what kind of details they could see on the models. This can be helpful for a modeler to know what the judge is looking for, but the beginning modeler needs to pick something they like, and then go from there. Alan also had a few resources for where to get the data.

After Alex tried to start the meeting, Jim Filler reminded him he needed to talk about B Streamer Duration. Jim brought one of his FAI models, and talked about the streamer attachment (1 for NAR, 2 for FAI), the different types of material to use, and how to fold. Jim also discussed flying the field in Mt Airy, and what engine will be useful for B streamer.

Jim Filler with one of the Rocket Glider models

All during the talks, members asked questions, and learned things. Raul Pena posted on the narhams group the next day:

Last night's meeting was one of the best ones I have attended in a long time. Very informative as I learned new things about helicopter recovery, building techniques, gliders, choosing building materials, even became a judge! One of the things I liked best was that everyone pitched in the discussion. Many thanks to those who had a presentation on a specific topic. I can tell that have a looooong way to go and learn about other aspects of the hobby... definetly it is not only building a 3-4F and a NC rocket. - Raúl

The Contest Director, Jim Filler, would like to invite all members, including those who have never competed before, to come out, and try a few of the events at ECRM. Even thekids can get into it, by flying a sport model with a streamer. They will probably beat the adults anyway.

Contest is June 15-16, 10am -4pm on Saturday, 10am -2pm on Sunday, with a picnic and awards ceremony afterwards. Don't forget to wear your cowboy hat on Sunday.

NARHAMS 2013 CALENDAR

Apr 6	5:30 – 9 pm	Monthly meeting, Rule Change proposal discussion (Jim Filler)	College Park, MD
Apr 7	1 – 2 pm	Goddard Public Launch	Greenbelt, MD
Apr 20	10 am – 4 pm	Sport launch, Paratrooper Spot Landing (John McCoy/Alex Mankevich)	Mt. Airy, MD
Apr 28	noon – 5 pm	Rockville Science Day, Rockville Community College	Rockville, MD
May 4	5:30 – 9 pm	Monthly meeting, ECRM building session	College Park, MD
May 5	1 – 2 pm	Goddard Public Launch	Greenbelt, MD
May 11	7 am – 5 pm	TARC 2013 Finals	The Plains, VA
May 17-18	10am-4pm	Steel City Smoke Trail XIII,	Weber Farm, PA
	Events: 1/4A HD, 1/2A RG, B SD, STA 225m(altimeter), Classic Model		
May 18	10 am – 4 pm	Sport launch, Wall of Daring (Kevin Johnson / Frank Panek)	Mt. Airy, MD
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 14	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.

ZOG - FORTY THREE
1404 SWEET CHERRY COURT
SEVERN, MD 21144

Launch Schedule

PUBLIC LAUNCH
Goddard Space Flight Center
Visitor's Center
April 7, 2013

SPORT LAUNCH
April 16, 2013
Mt. Airy, MD

PUBLIC LAUNCH
Goddard Space Flight Center
Visitor's Center
May 5, 2013

SPORT LAUNCH
May 18, 2013
Mt. Airy, MD