



The Zog-43

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



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

The ZOG-43 is an eight-time winner of the NAR/LAC "Rockwell" Trophy, recognized as the best NAR section newsletter. Years won: 1969, 1973, 1975, 1990, 1991, 1992, 2003, & 2004

March 2010
Vol 32. Number 3



Tom Henderson's Intrepid Space Shuttle clearing the Pad. Photo by Tom Henderson

The March Sports Launch

OK Sports Fans, thanks to Mother Nature it has been almost two to three months since the most of us have flown rockets. Hopefully, all that will change this March. At this month's sport launch. we will be having our Cold War Themed Sport Launch. Additionally we will also be having a "Fun" Big Bertha Rocket Contest (Don't worry, I am going to dominate!!!!). I am sure there will be allot of TARC Launches and mid-power flights. If you have friends who are not club members and are looking for something fun to do, bring them to the launch. Also remember NAR's membership drive "52 by 52" so if you think you know anyone who is interested in joining the NAR and NARHAMS make sure you bring them.

On a personal note, I want to apologize for not having a February Zog. For anyone who has submitted articles and pictures, don't worry I will use them.

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BUT WAIT THERE'S MORE!



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IT'S TIME FOR US TO GROW

By Trip Barber, NAR 4322, NAR President

Our membership has been in the range of 4500 or so for several years. It's time for us to grow back to where we were in the late 1990's, before the long successful legal battle against BATFE: 5200 members. We won the battle against BATFE and are free of their burdensome regulation. We have a great organization that offers the best membership value in the hobby. It's time to get back on track and regain the members we need to support the new services and programs that you want.

Growing our NAR membership will not just happen; we need everyone to help. In order to help focus us all on what we need to do, the NAR Board has decided to conduct our first-ever membership-growth campaign between January 1, 2010 and the first day of NARAM-52, July 30, 2010. **Our goal is to reach 5200 members by NARAM-52: "52 by 52".** I ask for your help in recruiting new NAR members to help us reach this goal.

Our membership drive was organized and is being led by Carol Marple, the new chair of our Membership Committee. She is being assisted by Todd Schweim and Jeff Taylor, but what we are doing will involve many people beyond this committee. Here are the major elements of the drive:

Several manufacturers have agreed to support it through kit stuffers; through banner ads on their websites that direct people to the "Join the NAR" page of our website

Three manufacturers have agreed to provide free products (rocket kits by Semroc and Quest and a rocketry hat by Aerotech) that will be mailed directly from them to new members who join during the campaign. This is \$30 of rocketry products, free!

Sections will be sent a supply of color tri-fold NAR brochures with their 2010 renewal packets, and are asked to use them at launches, hobby stores, and public events. You can get more if you need them simply by asking NAR headquarters. Sections will continue to get a \$5 bonus for each person of growth in their total count of NAR members

Members who recruit a new member will get a \$5

cash incentive if that new member provides their recruiter's name and NAR number on their application. If you need a personal supply of NAR brochures to be a better recruiter, ask NAR headquarters.

Nationally we will put publicity announcements in publications and popular online forums, send NAR delegations to run booths at several major educator conventions, and enhance our web presence.

Persuading people to part with money that could buy rockets in order to buy membership in a rocketry association instead is not always easy. It takes a little bit of salesmanship and a lot of belief in the value proposition of our organization. Don't be shy about saying it: we're not only the world's first and largest rocketry organization; we are the best value in the hobby. Here is what we offer our members in exchange for their dues:

Great insurance that is primary coverage and that is valid anywhere in the US, any time, not just at organized launches

The best magazine in the hobby: 48 all-color pages 6 times a year, at no extra charge beyond their dues

A 60-page Member Guidebook full of how-to articles and rocketry reference information

A monthly electronic newsletter

Extremely effective representation of members' interests with federal agencies and national safety organizations

High-power user certification through Level 3

Participation in organized national and international competition programs, individual skill-development programs, and education programs that no other organization offers

Free kits and other merchandise when they join during the period of our drive

Please help us make your NAR a better organization with better member services by being an active recruiter for new NAR members. If you have additional ideas for things that we could do nationally to make our recruiting more effective, or ideas for recruiting initiatives that others could pursue at the local level, please share them with Carol Marple at cjmarple@peoplepc.com or with me at president@nar.org. It will take all of us working together to reach our goal: 52 by 52. Let's go get it done!

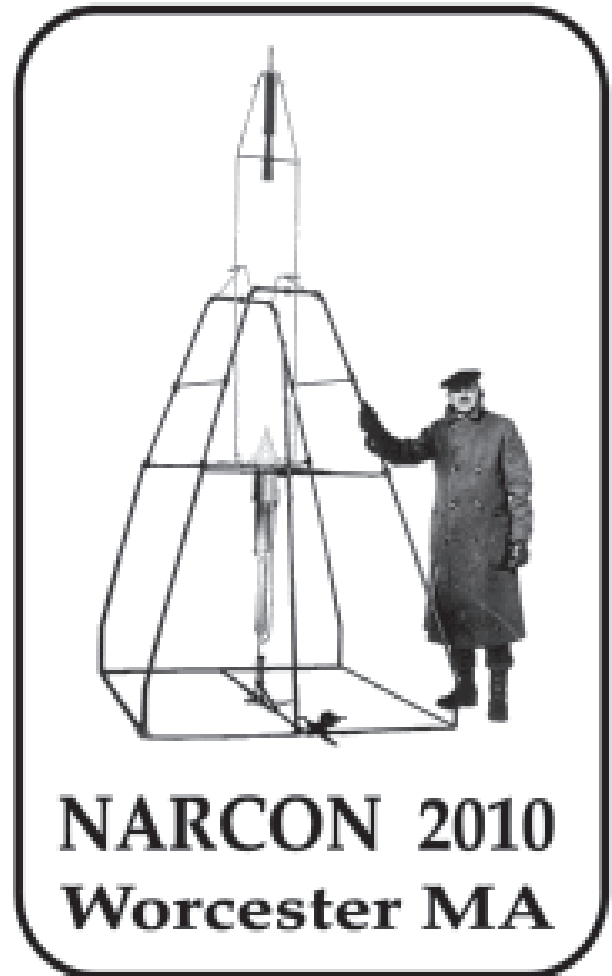
Be safe, have fun and pay forward in your rocketry activities.



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Another TARC Rocket at the January Sport Launch. Photo by Tom Henderson



**NARCON will be held on March 13 and 14th 2010
sponsored this year by CMASS. Please Stay Tuned for
more details.**



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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 Model 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.

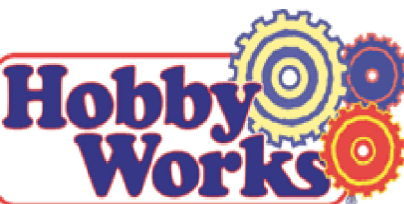
Sport Launches are usually held the third Saturday of every month at Old National Regional park near Mt. Airy, Md. Check the web page for updates.

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.



NARHAM Members
Save Big

Laurel Rockville Fairfax Bel Air
Save Up to 20%

ZOG-43

Volume 32 Number 3

January 2010

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 monthly and is available to anyone on a subscription basis. Current rates are \$10 for meeting pickup or email or \$15 for postal mail U.S. Funds for 12 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.....

If you have any questions about ZOG-43 or NARHAMS, or if you have any comment(s), correspondence, free merchandise or if you'd like to submit an article, send them to :

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Aerotech Reload Delay Grains

By: Jim Filler

This is more of an FYI for those that fly hobby level Aerotech re-load motors that utilize delay grains in the 24-29mm range. I recently received an e-mail from former club member Don Brown stating he had been seeing some problems with AT 29mm re-load hobby motors with very short delays. Don had purchased G71 Redline & G76 Green motors with 7 second delays. When he did some checking on the delay grains the ones supplied actually matched the measurement of the four second delay grains. For anyone that has flown these types of motors you know how important the proper delay time is for the flight to be successful. In some cases the AT composite motors have been known for having delays that are too long. Delays that are too short are also problematic for large model rockets. One of the problems a short delay can cause is super stress on the recovery system. The parachute in some cases can shred at high speed deployment, the shock cord can snap, and of course a nice zipper in the body tube can ruin your well finished model. If your parachute does shred or your shock cord does snap, your model may come tumbling in, or worse case streamlining in.

If you have these AT reloads in your stock, check out the delay grains for proper length before arriving at the flying field. I am going to ask the RSO's running our launches to question anyone flying these loads if the check was done to confirm the correct delay grain with the selected motor delay. I encourage you to follow through on this and to ask questions if you don't understand this. The following link can be used to verify the correct delay grain length for your motor.
http://www.aerotech-rocketry.com/customersite/resource_library/Instructions/hdk_instructions/29mm_hdk_instr.pdf

I will publish this link on-line as well for your convenience.



Mike Kelly's Blue Bird Zero Taking off. Photo by Tom Henderson



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Do you have a Big Bertha????? Then Bring it!!!!!!

NARHAMS will be holding a "fun" contest during the monthly sport launch at the Old National Pike Park field on March 20 2010. I am giving you seven weeks notice to build or repair one model in order to participate.

We are going to do some things to try to increase participation from the sport flyers to join in flying the contest events.

NO ENTRY FEE !

We will be awarding kits for first place finish for under 18 (A vs. B div) and adults (C vs. T div.). The overall points winners for each group will also win gift cards to Hobbyworks.

We have decided to fly the events according to the Pink Book as a normal NAR sanctioned contest, however we have also added some "Gentlemen's Agreements" that are not enforceable per the Pink Book, however if you decide to not follow the agreement rules, you will face the wrath of the crowd booing you !

If you have a question please ask, otherwise I expect to see you there and participating !!!!

So here are the events:

(8 WF) Random Duration. This event is a single best flight with the target duration picked ahead of time. Use a "Big Bertha" type model (No RC Kevin) The model can not separate.

(12 WF) "B" Parachute Duration MR. This event would be flown as the best single flight using a "Big-Bertha" style model and a "plastic" or nylon parachute suggested limit of 18" diameter. The model can not separate.

(14 WF) "C" Streamer Duration MR . This event would be flown as the best single flight using a "Big-Bertha" style model and a streamer made of 2" wide crepe paper. The model can not separate. (Yes the CD will have rolls of crepe paper to share)

(4 WF) Open Spot Landing. This event would be flown as the best single flight using a "Big Bertha" or "Big Daddy" model. The model can not separate.



MICRO MODEL MAGNIFYING CORNER: BY "MICROMEISTER" : JOHN MCCOY -

NAR-15731

Micro Maxx Boost Gliders:

One of the very first Micro Downscale created in late 1999 was a minimum diameter T2+ (.281") Orbital Transport with a T2 (.246") diameter gilding orbiter. From the very first exciting flight the Micro O.T. has been one of those models that has racked up quite a few flights, 19 to date after looking at the log. The orbiter is now getting pretty dinged up but she still gets out of the box every now and then.

Even this TINY .246" x 2.47" long parasite glider is very recoverable (as long as the grass isn't too high) so don't give recovery to much pause as most other micro BG's turn out a good bit larger.

Another really Cool micro powered parasite glider set-up is the downscale MPC Lunar Patrol. This T3 (.375") diameter Booster and twin T3 Gliders has proven to be a ton of fun with both gliders generally landing within 10 feet of the Booster core. We've already published the plan for the micro Lunar Patrol, if you missed it you can still download it and several other Micro Glider 1-page plans from the Files section of the MicroMaxRockets Yahoo group.

Other currently available Boost Glider one-page plans include the Falcon BG, Micro Deltie, Micro Skydart (Skydart is heavy if not done from all cardstock), Micro Scissor Wing Transport, and T3 Flying Jenny.

I'm currently working on a T3 Red Baron version of the Jenny but have yet to complete or fly it so the plan is still in the "On the board" stage.

One of the things I'm finding concerning Micro Glider construction. While Basswood is often preferred for ease of finishing it's extra mass can be a performance killer for these little models. Building as light as possible is truly key with micro Boost Gliders. Sanding airfoils as precisely as possible and keeping all unnecessary mass away at all cost. Pay particular attention to incidence of the main wings on several of these tiny versions. The Falcon BG for instance need an additional -2° on the forward edge of the wings to get the little bugger to transition to glide.

Hand glide trimming is and always has been a major failing of mine. If your good at glider trimming your golden, if like me, your going to need the help of someone who know how to get some of these models to fly as good as they look☺

Next month we'll look at Micro Rocket Gliders discussing various variable geometry schemes including; Slide wing versions like the Flis Nanite, Elevator control as with the Micro Nomad and Canard control shown on the micro EC-1/8A. Until then, Keep em Flyin Micronized.



An Alpha 3 on a D-10 Engine..... Sweeeet!!!. Photo by Tom Henderson

McCoy's Micro Wonder Works

Micro Maxx Orbital Transport

1: 3.4733 Down Scale: multiplier= .287909

Model No. 220 Dwg complete 10-22-99, Model completed 11-12-99

Transporter body: .281" x 5.1875"

Scram Jet tubes: .1875" x .875"

Orbiter Body: .2362" x 1.875"



2-2+ .281" OD x .255" ID x 5.1875" long Tube

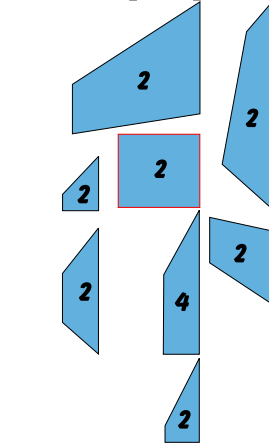
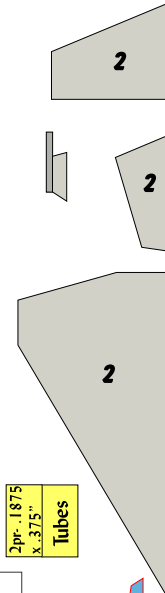
2-2.246" OD x .220" ID x 1.875" L Tube

*.281" x 1.25"
ID: .41 OD: .41*

*.2362" x .4894"
ID: .21 OD: .21*

Orbiter Parts

SS Transport parts

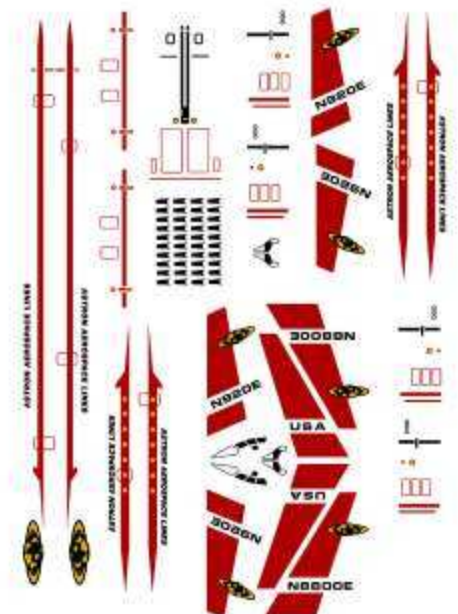
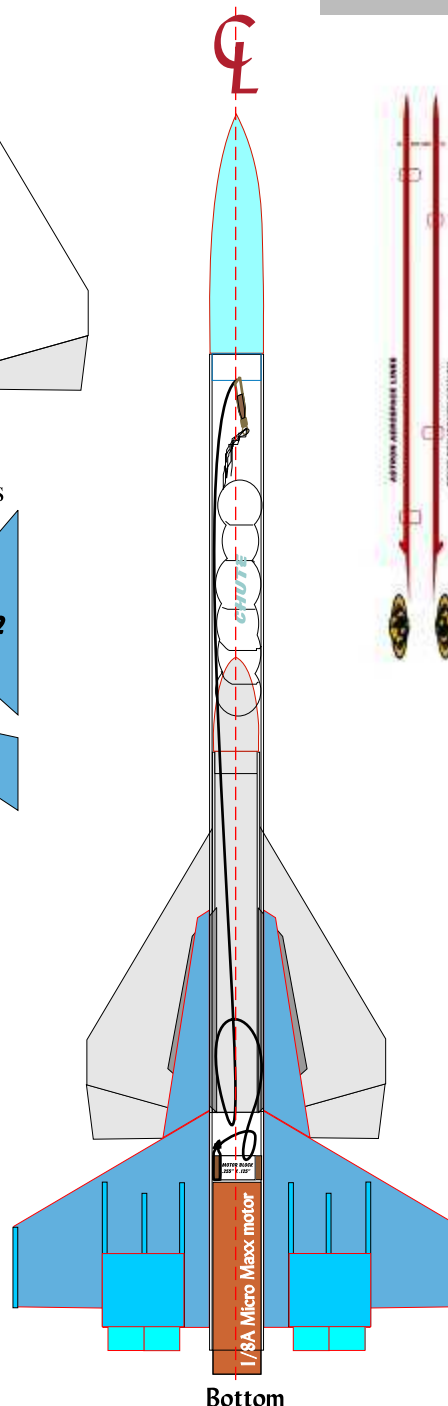
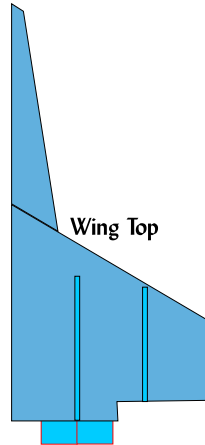
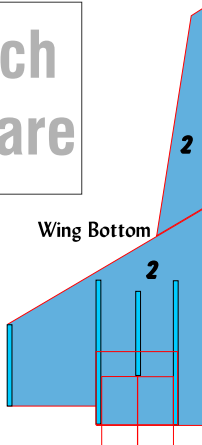


2pr. .1875
x .375"
Tubes

1 inch
square

Wing Bottom

Wing Top



Bottom



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NARHAMS 2010 Sport Launches Approved !

January Sport Launch Report

By: Jim Filler NAR # 27862

NARHAMS put together a 2010 calendar back in November 2009 for events through December 2010. A normal part of this is to schedule the monthly sport or contest launches at Old National Pike Park. These launches require approval from the Frederick County Parks Commission. I reported on-line that the approval had been received and that we would be having a launch on Jan 16th.

Tom Ha volunteered to be the launch manager and I helped out with picking up the launch equipment. Temps were only in the 40's and it was mostly cloudy but a pleasant day. We abbreviated the launch window from 10-2 to allow for the yearly range maintenance to get done.

We have decided one thing we are going to change at the Sport launches in 2010 is to go back to individual flight cards to assist the RSO in what he is flying, a better amount of information captured up front before the flight and a way to capture information on that card if the flight is less than nominal ☺ Another by-product this will produce is a way for the launch manager to generate some numbers right from the cards as to how many flights we had, how many problem flights we had, how many flyers, who they were, and the number of, and power level of the motors used. When launches are over, the launch manager can either ask for a volunteer to tally the daily flight cards, or can do it him or herself. The Jan. launch statistics look like this:

15 flyers
44 flights
45 motors

That breaks out like this

A=3
B=10
C=12
D=2
E=7
F=8
G=2

The number of flights winner of the day was Tom Anderson making seven flights. We also had 4 TARC teams that combined for seven flights. Mike Kelly had five flights.

When the launch was completed we packed up and proceeded to reconvene at my place in Frederick and proceeded to thoroughly clean all the launch equipment, replace some bad connectors, replace clips where needed, and repack the system into two new launch boxes. I would like to thank Jennifer Ash-Poole, Mark Wise, Chris Kidwell, Tom Ha and John

McCoy for helping get this done for the club to utilize this coming flying season.

The last thing I'll touch on in this article is to tell you to

Pay Attention to the launch schedule this coming year. Starting in May we are going to try something new. We are going to delay the start times to 12 noon for the warmer months when the days are longer. We are hoping this will give us more time after the athletic fields are done being used to fly more large model rocket class models and motors. Another plus that we might see is a tendency for the breeze to calm to almost nothing for the evening hours from 6pm to 8pm. These conditions are not very prevalent, but sure make recovery of model rockets a lot easier!

See you on the field

Jim

NARHAMS Shirts!!!!

Cash Only Please !

The Stock I have:

Adult XL T-shirts @ 9.00 each
Adult XXL T-shirts @ \$10.00 each
Adult XL Crew Sweatshirt @ \$18.00 each
Youth L T-shirt @ \$8.00 each
Infant, Toddler Shirts @ \$7.00 each



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

•••••
New T-Shirt! Check it out at
www.pratthobbies.com
Mention your NARHAMS membership on the online order form for a Special Ludicrous Discount!



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NASA EXTENDS THE WORLD WIDE WEB OUT INTO SPACE

HOUSTON -- Astronauts aboard the International Space Station received a special software upgrade this week - personal access to the Internet and the World Wide Web via the ultimate wireless connection.

Expedition 22 Flight Engineer T.J. Creamer made first use of the new system Friday, when he posted the first unassisted update to his Twitter account, @Astro_TJ, from the space station. Previous tweets from space had to be e-mailed to the ground where support personnel posted them to the astronaut's Twitter account.

"Hello Twitterverse! We r now LIVE tweeting from the International Space Station -- the 1st live tweet from Space! :) More soon, send your ?s"

This personal Web access, called the Crew Support LAN, takes advantage of existing communication links to and from the station and gives astronauts the ability to browse and use the Web. The system will provide astronauts with direct private communications to enhance their quality of life during long-duration missions by helping to ease the isolation associated with life in a closed environment.

During periods when the station is actively communicating with the ground using high-speed Ku-band communications,

the crew will have remote access to the Internet via a ground computer. The crew will view the desktop of the ground computer using an onboard laptop and interact remotely with their keyboard touchpad.

Astronauts will be subject to the same computer use guidelines as government employees on Earth. In addition to this new capability, the crew will continue to have official e-mail, Internet Protocol telephone and limited videoconferencing capabilities.



A TARC Model on a E-30 at the Jan. Sport Launch. Phot by Tom Henderson



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2010 Calendar of Events

| Date | Time | Event | Location |
|--------|--------------|---|---|
| Dec 19 | 10 am - 4 pm | Sport Launch, Land Your Lander Fun Event (Dec 26 rain date) | Stick your landing, win a prize (Tom Ha) Mt. Airy, MD |
| Jan 2 | 5:30 - 9 pm | Meeting, working with plastics (John McCoy), swap meet | College Park, MD |
| Jan 3 | 1 - 2 pm | Goddard Launch | Greenbelt, MD |
| Jan 16 | 10 am - 4 pm | Mt. Airy Launch, MicroMaxx theme | Mt. Airy, MD |
| Feb 6 | 5:30 - 9 pm | Meeting, camera payloads (Scott Branche, Alex Mankevich) | College Park, MD |
| Feb 7 | 1 - 2 pm | Goddard Launch | Greenbelt, MD |
| Feb 20 | 10 am - 4 pm | Mt. Airy Launch, Cold War models (green with red star) | Mt. Airy, MD |
| Mar 6 | 5:30 - 9 pm | Meeting, contest building (Alex Mitiuriev tentative) | College Park, MD |
| Mar 7 | 1 - 2 pm | Goddard Launch | Greenbelt, MD |
| Mar 20 | 10 am - 4 pm | Mt. Airy Launch, Local Meet contest | Mt. Airy, MD |
| Apr 4 | 1 - 2 pm | Goddard Launch (cancelled) | Greenbelt, MD |
| Apr 10 | 5:30 - 9 pm | Meeting, kit bash (Scott Branche) | College Park, MD |
| Apr 17 | 10 am - 4 pm | Mt. Airy Launch, Maryland Funny Meet 3 | Mt. Airy, MD |
| Apr 25 | 12 - 4 pm | Rockville Consortium of Sciences build/fly | Rockville, MD |
| May 1 | 5:30 - 9 pm | Meeting, finishing techniques, wet sanding (John McCoy, Jim Filler) | College Park, MD |
| May 2 | 1 - 2 pm | Goddard Launch | Greenbelt, MD |
| May 8 | 12 - 5 pm | Space Day static display, Maryland Science Center | Baltimore, MD |
| May 15 | 7 am - 5 pm | TARC Finals, Great Meadow | The Plains, VA |
| May 15 | 12 - 8 pm | Mt. Airy Launch | Mt. Airy, MD |
| Jun 5 | 5:30 - 9 pm | Meeting, outside speaker TBD | College Park, MD |
| Jun 6 | 1 - 2 pm | Goddard Launch | Greenbelt, MD |
| Jun 19 | 12 - 8 pm | Mt. Airy Launch, ECRM Regional Meet | Mt. Airy, MD |
| Jul 3 | 5:30 - 9 pm | Meeting, night launch ideas (John McCoy) | College Park, MD |
| Jul 4 | 1 - 2 pm | Goddard Launch | Greenbelt, MD |
| Jul 17 | 12 - 8 pm | Mt. Airy Launch, demo dress rehearsal, ping pong ball spot landing | Mt. Airy, MD |
| Jul 18 | 12 - 4 pm | Goddard Contest | Greenbelt, MD |
| Aug 1 | 1 - 2 pm | Goddard Launch | Greenbelt, MD |
| Aug 14 | 5:30 - 9 pm | Meeting, NARAM report (various) | College Park, MD |
| Aug 21 | 12 - 8 pm | Mt. Airy Launch Mt. Airy, MD Details | |
| Sep 4 | 9 am - 5 pm | RAMTEC Regional Meet | Ft. Indiantown Gap, PA |
| Sep 5 | 1 - 2 pm | Goddard Launch | Greenbelt, MD |
| Sep 11 | 5:30 - 9 pm | Meeting, elections, FAI report (Ed Pearson, Chris Kidwell, Kevin Johnson) | College Park, MD |
| Sep 18 | 12 - 9:30 pm | Mt. Airy Launch, Super LeMans timed kit build/fly, night launch | Mt. Airy, MD |
| Oct 2 | 5:30 - 9 pm | Meeting, glider building session (Robert Edmonds) | College Park, MD |
| Oct 3 | 1 - 2 pm | Goddard Launch | Greenbelt, MD |
| Oct 16 | 10 am - 4 pm | Mt. Airy Launch, Oktoberfest | Mt. Airy, MD |
| Nov 6 | 5 - 10 pm | Meeting, movie night (Ed Pearson), 2011 planning | College Park, MD |
| Nov 7 | 1 - 2 pm | Goddard Launch | Greenbelt, MD |
| Nov 20 | 10 am - 4 pm | Mt. Airy Launch, R/C glider day | Mt. Airy, MD |
| Dec 4 | 5:30 - 9 pm | Holiday party, Greenbelt Community Church | Greenbelt, MD |
| Dec 5 | 1 - 2 pm | Goddard Launch | Greenbelt, MD |
| Dec 18 | 10 am - 4 pm | Mt. Airy Launch, holiday oddroc | Mt. Airy, MD |



Jim Filler's Interceptor clearing the rack. Phot by Tom Henderson

ZOG - FORTY THREE
3102 Eden Drive
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Launch Schedule

SPORT LAUNCH
Old National Pike Park
March 20th

PUBLIC LAUNCH
Goddard Space Flight Center
Visitor's Center
March 7th, 2010