

THE ZOG-43

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

1965-
2005



40th
Anniversary



NARHAMS and Pratt Hobbies Support "Spaceship One Family Day"

By Alan Williams NAR #14137

NARHAMSters along with Pratt Hobbies assisted at the National Air and Space Museum's "Spaceship One" Family Day on November 19th. The program celebrated the X Prize winner's recent installation in the downtown museum's Milestones of Flight Gallery. Families from all over the Washington area were invited to do an exiting series of kid-friendly activities. College kids helped on space art projects. An astronaut did the dreaded "how do you poop in space" Q and A sessions; spacesuit demonstrations and craft projects rounded out the activities scattered around the museum. There was even a rock band, "Naked Singularity", composed of aerospace engineers. They were much better than you might expect.



Photo courtesy of Pratt Hobbies

Penrose to make sure we were covered for the event.

Our group staffed a display in the Space Hall explaining the hybrid rocket motor used in the S-1 and giving general rocket-related info to visitors. Doug, Valerie and Brian Pratt represented Pratt Hobbies. They brought an assortment of models; Quest, Estes, and Pratt Hobby (Duh...!) models to show around. They also had hybrid motors from very small to very big indeed! Plus an IQSY Tomahawk in 2/3 scale that looked right at home next to the Scout satellite launcher at our backs. Kevin Johnson with his "WHOOOO PIG!" and a 1/30 scale S-1 and Alan rounded out the display team. Alan brought 2 of the new S-1 1/15 scale E powered Estes kits. They had been sent out on VERY short notice from

We had a nice day of contact with the public. The kids and adults were very impressed with the big Estes Spaceship kits. (They look really nice; the only worrisome part is the strength of the Styrofoam tail booms.)

We also passed out info flyers and contact sheets that were well received. Of course we had to have one busted rocket. This one 7 year-old kept coming back to play "pack the parachute" over and over. One time he leaned on Kevin's S-1 model a little too...hard and Crack! @\$%^ Wow, Kevin's spent more time round sailors than we thought! (Actually, he just smiled sweetly and beat him with a hybrid motor casing.)

All in all it was a nice day; the museum staff was helpful and impressed by our efforts. If you have to be inside on a weekend, you could do a lot worse!

DECEMBER 2005
VOL 27 ISSUE 12

Inside this issue:

Page 4-

OPOSSUM-10

Page 5-

Picture Page

Page 7-

NASA Space Place

AND MORE!

ZOG-43

**Volume 27 Number 12
December 2005**

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 :

ZOG-43, 700 Cliveden Road West,
Batlimore, MD 21208
E-Mail ZOG-43 at:
zog43editor@yahoo.com

ZOG-43 is edited by Roy Lappalainen, and 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 & 2005

Zog-43 staff typist is none other than Jennifer Ash-Poole a.k.a. Secretary to the Stars !

Photographs: by Roy Lappalainen, except where noted.

ZOG-43 is produced on a eMachines D2046 PC with a Pentium 4 processor using Adobe PageMaker. Masters are printed on a HP Laserjet 4L printer.

This Edition: 35 copies

NARHAMS ON THE WEB

<http://www.narhams.org>

Send and receive E-mail with other NARHAMS members through NARHAMS Web page grouplist via yahoo-groups.



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 five time winner of the NAR "Section of the Year" award.

Years won: 1997,1998,1999, 2001, 2004

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 second Saturday of every month at Middletown Recreation Park in Middletown 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.

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

ZOG ROYAL COURT

(NARHAMS OFFICERS)

ZOG (President)	
Jennifer Ash-Poole	410-674-6262
PRINCE ZOG (Vice-President)	
Roy Lappalainen	410-653-6087
COLLECTOR OF THE ROYAL TAXES (Treasurer)	
Ed Pearson	301-577-7775
KEEPER OF THE HOLY WORDS (Secretary)	
Chris Kidwell	571-434-7507
COURT JESTER (Section Advisor)	
Jim Filler	301-524-4447

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.



December's President's Message

This past year has seen some great landmarks for the club. We turned 40 in March, had a party, old timers showed up, and we got a new patch for the anniversary. We voted to run NARAM 50 in 2008, and we did some tweaking with the calendar.

Of course, what the club does best, besides fly rockets, is outreach. We didn't win the Section of the Year Award, but we did have a lot of outreach, with a Boy Scout camp in Harford County to all the teams our club mentors for TARC. And let's not forget all those launches at Goddard with Alan Williams and Ed Pearson.

We also competed. The club came in second for the year in competition, and that was with us not really going all out. We had Matthew Filler coming in 4th for the year, and the team *Slightly Harmful* (myself and Chris Kidwell) being Reserve Champions in team. It takes more than just these three people to lead the club in contests. We had Joss and Jess Tschirhart become a team with Kevin to help out in R&D and Scale. We had another Virginian, Tom Lyon, still fly as *8-ball Racing*, doing a fine job. Then there are the Humphreys (Katherine, Mike and Steve) and Anita Rogers as our New Jersey Contention. And we can't forget the usual characters, Jim Filler, John McCoy, the cadets, the Bittles (Khim, Kris, Kindra, and Kate), Bill Harvey, Paul Miller, Garrett Miller, Mark Petrovich, Rusty Whitman, and Jim Miers.

Now, that last list may look like the

club roster, but a lot of those also did outreach, lead some discussions at meetings, and helped out at Goddard.

This past year, we saw two members of NARHAMS step down from their jobs as Section Advisor and Editor to get a break and allow someone else a change at the jobs. We also saw the passing of Bruce Markielewski, a truly fine scale modeler.

I realize I may have missed something important that went on in the club, but it truly has been a wonderful 40th year. We have proven the club can stay around for a while, and we are still involved in lots of things.

Here's to 2006!

Zog Bubbles



Photo by Das Pratt Kinder

OPOSSUM-10 OPEN MEET WRAP-UP

By Roy Lappalainen NAR #83317

The event line-up was 1/8A-Rocket Glider (RG), A-Streamer Duration (SD) Multi-round, A-Parachute Duration (PD); Sport Scale. Two additional pre-provisional events were also included: D-Cargo Boost Glider and C-Cargo Copter.

For all events, A and B divisions were scored together as were C division and Teams except Sport Scale where C and Teams were scored separately .

The RG event was flown with only one contestant in each division. In A/B division Matthew Filler placed first with an 8 and 6 second flights and David O. Canton second place with a 4 second flight. Both set new national records for 1/8A-RG for B and A divisions respectfully. Jim Filler places first and *Mostly Harmful* second place in C/Teams division.

Streamer Duration had the largest number of contestants with 11 and 1 team. The challenge with this event and PD was to over-fly the woods. Many models were temporarily lost. Mine ended up in the top of a tree. Thankfully, returns are not necessary for multi-round. Again Matthew Filler takes first place and David O. Canton second. For C division and Teams *Mostly Harmful* takes first place with 240 seconds of flight time. Trip Barber second with 183 seconds flying an FAI S6A model. Rounding out the top finishers

was Bill Harvey with 170 seconds.

In PD Ed Giugliano takes first place for C/Team division with a total of 113 seconds of flight time, beating out *Mostly Harmful* by 1 second and Mark Petrovich third with 95 seconds. In A/B again Matthew Filler places first with 58 seconds and David O. Canton second place with 26 seconds.

Sport Scale brought about the re-activation of T-043 *4-Digit Guys*. There *Little Joe II* was brought out of retirement and was still good enough to take first place in teams and had the second highest score overall. *Mostly Harmful* places second with a *Black Brant IIIB*. In C division Kevin Johnson wins with an *Astrobee 1500*. Second goes to Jim Filler with a *Nike Apache* and third to Ed Giugliano with a *Nike Smoke*. Matthew Filler completes his clean-sweep with a first in A/B division with a very nice *Nike Orion*. Matthews' model had the highest static points score with 745 points. David O. Canton a second with a *Bull Pup*. David J. Canton and Bill Harvey both with *Bull Pups* complete the list of competitors.

The Meet champions are: A division David O. Canton; B division Matthew Filler; C division Jim Filler and *Mostly Harmful* for teams. In lieu of ribbons the winners will be awarded a refund of the entry fee and a gift certificate. Congratulations to the winners!



PICTURE PAGE



Calendar of Events for 2006

Jan 07	05:30 – 10:00 pm	Monthly meeting, Build-A-Building building session
Jan 21	12:00 – 04:00 pm	Sport Launch
Feb 04	05:30 – 10:00 pm	Monthly meeting, Spot Landing discussion
Feb 05	01:00 – 02:00 pm	Goddard public launch
Feb 18	12:00 – 04:00 pm	Sport Launch, Fly-A-Building 2 pm
Mar 04	02:00 – 04:00 pm	Cadet building session
Mar 04	05:30 – 10:00 pm	Monthly meeting, Bertha bash building session
Mar 05	01:00 – 02:00 pm	Goddard public launch
Mar 18	10:00 – 10:00 pm	Sport Launch, HSQM-39, Night Launch
Apr 01	02:00 – 04:00 pm	Cadet building session
Apr 01	05:30 – 10:00 pm	Monthly meeting, Finish unfinished projects building session
Apr 02	01:00 – 02:00 pm	Goddard public launch
Apr 15	10:00 – 04:00 pm	Sport Launch, Bertha fun event 2pm
May 06	05:30 – 10:00 pm	Monthly meeting, club history discussion
May 07	01:00 – 02:00 pm	Goddard public launch
May 13	10:00 – 04:00 pm	Sport launch, Record Trial-2
May 20	06:00 – 06:00 pm	Team America Finals, Great Meadows, VA
Jun 03	05:30 – 10:00 pm	Monthly meeting, missile building session
Jun 04	01:00 – 02:00 pm	Goddard public launch
Jun 17-18	10:00 – 04:00 pm	ECRM-33
Jul 01	05:30 – 10:00 pm	Monthly meeting, sci-fi discussion
Jul 02	01:00 – 02:00 pm	Goddard public launch
Jul 15	10:00 - 04:00 pm	Sport launch, paratrooper spot landing 2pm
Jul 16		Goddard Contest
Aug 05	05:30 – 10:00 pm	Monthly meeting
Aug 06	01:00 – 02:00 pm	Goddard public launch
Aug 19	10:00 – 04:00 pm	Sport Launch
Sep 02	05:30 – 10:00 pm	Monthly meeting odd-roc, NARAM review
Sep 03	01:00 – 02:00 pm	Goddard public launch
Sep 16	10:00 – 10:00 pm	Sport Launch, night launch, R/C fun fly 2 pm
Sep 19-26		World Space Modeling Championships
Oct 01	01:00 – 02:00 pm	Goddard public launch
Oct 07	05:30 – 10:00 pm	Monthly meeting, "Tactical Turkey" building session
Oct 21	10:00 – 04:00 pm	Sport launch sci-fi 2 pm
Nov 04	12:00 – 05:00 pm	Planning meeting
Nov 04	05:30 – 10:00 pm	Monthly meeting, R/C and glider building session
Nov 05	01:00 – 02:00 pm	Goddard public launch
Nov 18	10:00 – 04:00 pm	OPOSSUM-11, "Tactical Turkey" 2 pm
Dec 02	05:30 – 10:00 pm	Potluck Dinner
Dec 03	01:00 – 02:00 pm	Goddard public launch
Dec 16	10:00 – 04:00 pm	Sport launch



Pratt Hobbies is proud to announce that we are now a QUEST dealer! Contact us for all your Quest and MicroMaxx
p • f • o • d • u • c • t • s • .

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

Sport launches are held at Middletown Park from 10am-4pm, waiver up to 3.3 lbs and "G" motors not exceeding 62.5 grams of propellant. All flights "E" power and above are restricted to 5 degrees from vertical and Questions? Call Club President Jennifer Ash-Poole at 410-674-6262 or visit NARHAMS online at <http://www.narhams.org>

VOICES FROM THE CACOPHONY

By Trudy E. Bell and Dr. Tony Phillips

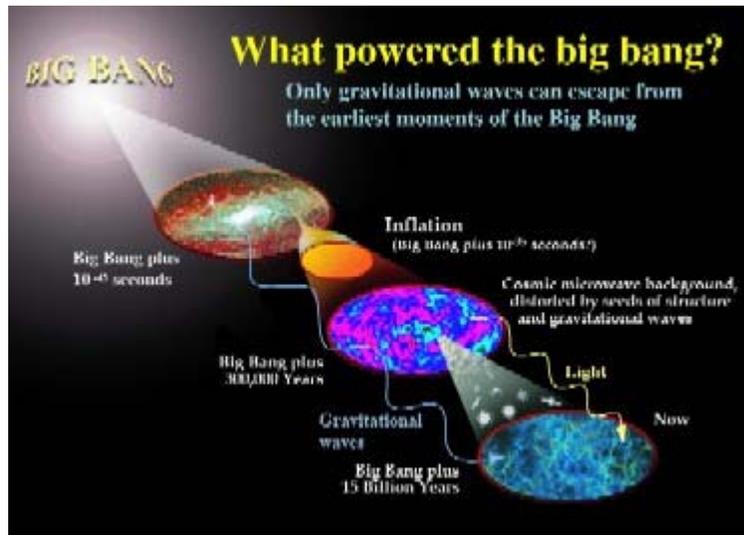
Around 2015, NASA and the European Space Agency plan to launch one of the biggest and most exacting space experiments ever flown: LISA, the Laser Interferometer Space Antenna.

LISA will consist of three spacecraft flying in a triangular formation behind Earth. Each spacecraft will beam a laser at the other two, continuously measuring their mutual separation. The spacecraft will be a mind-boggling 5 million kilometers apart (12 times the Earth-Moon distance) yet they will monitor their mutual separation to one *billionth* of a centimeter, smaller than an atom's diameter.

LISA's mission is to detect gravitational waves—ripples in space-time caused by the Universe's most violent events: galaxies colliding with other galaxies, supermassive black holes gobbling each other, and even echoes still ricocheting from the Big Bang that created the Universe. By studying the shape, frequency, and timing of gravitational waves, astronomers believe they can learn what's happening deep inside these acts of celestial violence.

The problem is, no one has ever directly detected gravitational waves: they're still a theoretical prediction. So no one truly knows what they "sound" like.

Furthermore, theorists expect the Universe to be booming with thousands of sources of gravitational waves. Unlike a regular telescope that can point to one part of the sky at a time, LISA receives gravitational



waves from many directions at once. It's a cacophony. Astronomers must figure how to distinguish one signal from another. An outburst is detected! Was it caused by two neutron stars colliding *over here* or a pair of supermassive black holes tearing each other apart in colliding galaxies *over there*?

"It's a profound data-analysis problem that ground-based astronomers don't encounter," says E. Sterl Phinney, professor of theoretical physics at the California Institute of Technology in Pasadena.

Profound, but not hopeless: "We have lots of good ideas and plans that work—in theory," he says. "The goal now is to prove that they actually work under real conditions, and to make sure we haven't forgotten something."

To that end, theorists and instrument-designers have been spending time together brainstorming, testing ideas, scrutinizing plans, figuring out how they'll pluck individual voices from the cacophony. And they're making progress on computer codes to do the job.

Says B o n n y Schumaker, a member of the LISA team at the Jet Propulsion Laboratory: "It's a challenge more than a problem, and in fact, when overcome, a gift of information from the

universe."

For more info about LISA, see lisa.nasa.gov. Kids can learn about black holes and play the new "Black Hole Rescue!" game on The Space Place Web site at <http://spaceplace.nasa.gov/en/kids/blackhole/>.

This article was provided by the Jet Propulsion Laboratory, California Institute of Technology, under a contract with the National Aeronautics and Space Administration.

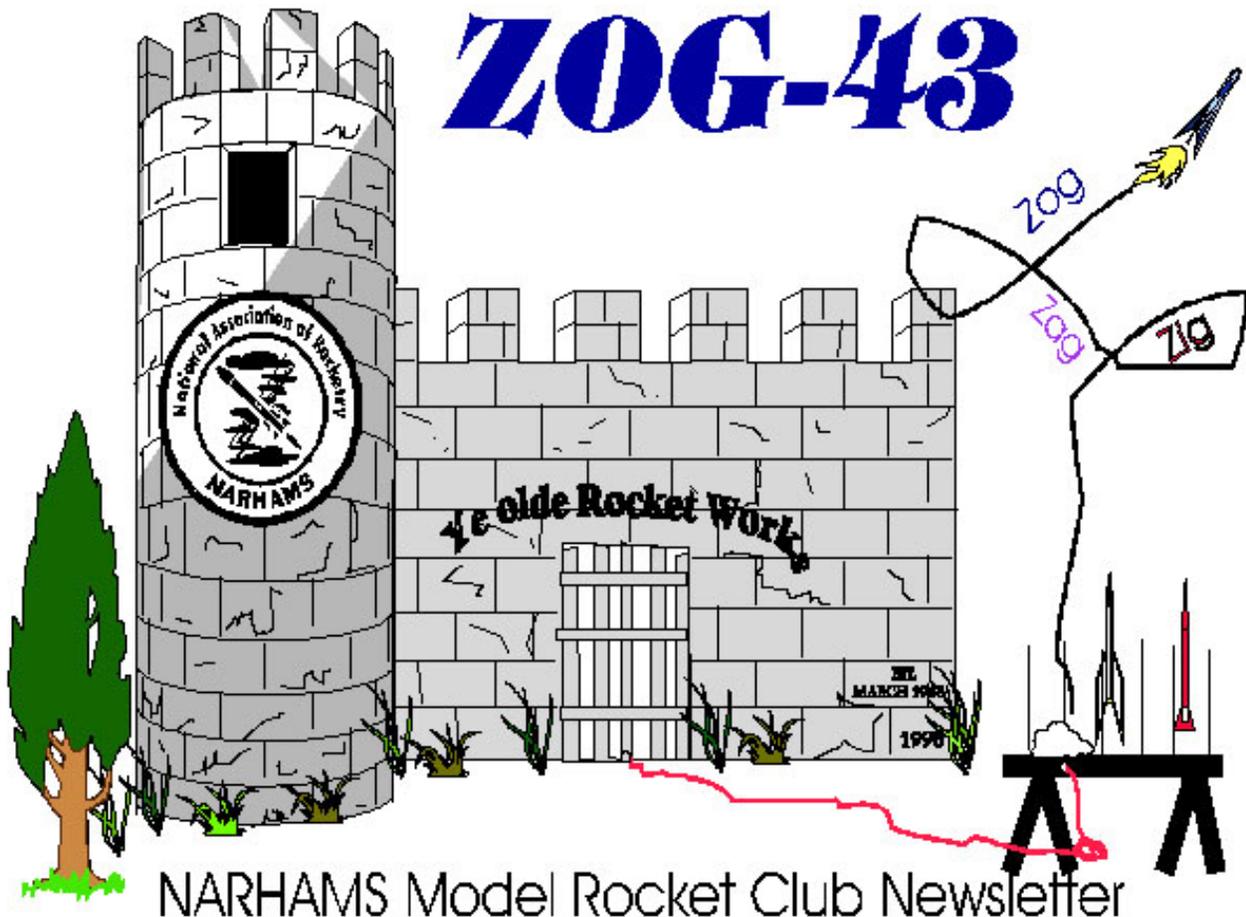
January 21st
Noon - 4:00PM
Middletown Park
SPORT LAUNCH

December 10th
10:00AM-4:00PM
Middletown Park
SPORT LAUNCH

December 4th
Visitors Center
Goddard Space Flight Center
PUBLIC LAUNCH

Launch Schedule

**206 - FORTY THREE
700 CLIVEDEN ROAD WEST
BALTIMORE, MD 21208**



NARHAMS Model Rocket Club Newsletter