# **THE 206-43**

SEPTEMBER 2007 VOL 29 ISSUE 09

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





## JUNE SPORT LAUNCH

By Jim Miers

The June sport launch was held as scheduled at Old National Pike Park

Twenty three flyers, NARHAMS members and guests, were on site to take advantage of fine flying weather. A bit warm, but the winds ranged from dead calm to mild, and we noted very few lost models despite evident thermal activity over the field.

Launch activities commenced shortly before 10 a.m. and ran continually until 3:30. We had one rack with 1/8", 3/16" and micromax rods. A single 1/4" away pad (supplemented for a while by a rail) served for mid-power flights. This arrangement was simple to set up and served for the turnout.

Nearly everything flew well. John McCoy launched an original Centuri Space Shuttle (KC6) as well as a number of MicroMax models. Dick Stafford arrived early and set the day's record for number of flights (12), which included a couple of flying hats in addition to more traditional designs.

It was great to see Jim and Tracy Berg and the kids again. Jim, Matthew and Caroline logged thirteen flights between them, various models (and the kids recorded their own flights, too. All growing up so fast).



Photo by John McCoy

The Barrie family had eight flights; mostly mid-powered models. Ian flew an alarming cluster model, something called the Double Banana, on a pair of B6's. One of our few tree recoveries.

Alex Mankevich recorded seven flights, including the redoubtable Cyclops on a 3 x C11 cluster.

Thomas Henderson logged only a single glider flight on an F20, but stayed around for the rest of the day to photograph the proceedings.

Only one problem flight noted, a kit called the Sea Wolf power pranged into the lower field on an E15. It came to earth far from the crowd, no injuries and no damage to anything but the model.

And I logged four flights, too. It was an entirely successful day.

And thanks to all the NARHAMS members who took time to enjoy a day of friendship and fine weather. Tip o' the hat to those who pitched in to help; John McCoy and Alex Mankevich who spotted for me on launch control, and especially Eric and Thomas Henderson and Don Brown, who stayed late and helped clean up and pack up the range.



Photo by John McCoy

#### ZOG-43

# **Volume 29 Number 09**September 2007

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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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

Photographs: by Roy Lappalainen, except where noted.

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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 and 2006

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 Pike Recreation 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 third 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.

# 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 ROYAL COURT** (NARHAMS OFFICERS)

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(Section Advisor)

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## **Steel City Smoke Trail 7 Report**

By Jennifer Ash-Poole

Two Steel City meets in one year! The second one was over Father's Day weekend, and it was sparse (We had the required 10 people to fly it as a regional.) Jim Filler and I were there representing NARHAMS. It was a beautiful weekend, and Rod even had a Blimp for us! No, wait, that was for the US Open that was happening 2 exits down on the Pennsylvania Turnpike.

The meet was held at the same place in October, Camp Lutherlyn Retreat. I would say the Camp and the surrounding fields are about the size of Middletown. The events reflected that with A and B motor events.

First up was B Eggloft Altitude. Rod got some great, even record breaking flights, but that darn hard ground of PA broke both his eggs. Steve got his egg to stay intact for one flight, and got 101 meters. Jim Filler talked balloons



with Steve and Rod, and determined he could order those balloons from his store.

After Altitude, the meet was opened up to the duration events. Steel City had A helicopter, A Boost Glider, B Super-Roc and B Streamer.

In the Streamer Duration, my model went 2 minutes before



disappearing behind the trees. Ward went looking for it while I did my range duty, but only found scratches on his legs. He was trying to match the scratches I got on my legs when I flew my A helicopter model, and had to recover it by going through brambles. Glenn Feveryear's streamer model was timed for 7 minutes by me and Taylor McMullin. I was having flashbacks to timing internats models, but everyone spoke English. Glenn didn't recover his model, although



he tried to bribe Ward with ribs and chili. (It landed in a nearby set of trees in the same general are of my model's disappearance.)

In Superroc, I didn't have a full length model, but I got a really good time on my first flight (I think about 2 minutes). I ran out of time to fly again on Saturday, so I flew on Sunday. That time, my chute didn't fully deploy. I was in the lead until Steve's second flight (and full length model) beat me by 310 points. Steve was trying to figure out if my model had been 2 cm longer or I had gotten 2 second more on my second flight, I would have beaten him.

The Pittsburgh group found themselves 2 B divisioners (one a TARC member) to fly competition. So they racked up the points at this meet. The one

B divisioner, Brian Guzek, will be going to NARAM. He is catching on fast, and should make a good showing for only having 2 meets under his belt.

Sunday was not a good day for Robert. Every glider he brought up to fly off the rocket range returned to its native state (i.e. kit form or parts.) After his third model, Rob decided to go back to his all electric Deltie Thunder and fly. He then ran back to Virginia to spend the rest of Father's Day with his Dad.



A few of the racks Sunday afternoon were called NARHAMS Sport racks. Both Jim and I prepped 2 models each and flew them off the range. Rod was still trying to get a few competition flights in while Jim and I flew some "mighty" D engines (Big Daddy, Super Big Bertha, and Astro Cam model.). Art Nestor came out to get shots of flying and awards. Tyler did very well in A division (competing against Hannah McMullin, who had a good meet as well.) Steve Foster won C division with first places in B SRD and B ELG. By the end, Glenn Feveryear said he was tired of flying B6-6 motors. There were a lot flown this weekend.







### **TARC 2007**

The Team America Rocketry Challenge of 2007, co-sponsored by the NAR and the Aerospace Industries Association (AIA) completed its annual Finals head-tohead championships on Saturday, May 19. This was a head-to-head single-flight flyoff among the top 100 of the 690 enrolled 7th-12th grade TARC 2007 student teams from around the US. Congratulations to the winning team, from Newark Memorial High School of Newark, CA who won not only \$10,500 cash for the student team members and \$1,000 for their school, but also a trip for the whole team to attend the June Paris Air Show as VIP guests of the Raytheon Corporation. A total of \$60,000 in cash prizes were awarded to the top 10 teams. The top 25 teams will be invited to participate in the NASA Student Launch Initiative program for the next academic year.

The Secretary of Defense, the Honorable Robert Gates, was the principal speaker and presenter of awards at the final ceremony. Also attending TARC were the Secretary and the Undersecretary of the Air Force, the Director of Defense Research and Engineering, 5 veteran astronauts including Buzz Aldrin and the NAR's own Jay Apt, and innumerable senior officials of NASA and the Department of Defense. The opening flyover was provided by a USAF F-117 stealth fighter. The winning team from UKAYROC, the exact same event flown this year in England for the first time, was present at TARC 2007 as guests and guest-fliers. The National Association of Rocketry (NAR) and AIA, cosponsors of TARC, thank all the NAR members and sections who participated in TARC 2007 both

locally, and as one of the 110 NAR range crew at the Finals, for all that you have done in passing on our enthusiasm for aerospace to the next generation. This is the purpose of TARC, to build the next generation of US aerospace professionals and adult NAR members.



Photo provided by Hamblin family

#### **4H Montgomery County Fair 2007**

- Editor

**NARHAMS** provided NAR memberships as awards for the top two contestants in Rocketry at the County Fair.

This years winners were Kurt Hamblin (in photo above) and Barry Wilcox III. Congratulations to both of you!

#### **Calendar of Events for 2007**

Jul 01	01:00 - 02:00 pm	Goddard public launch
Jul 02	05:30 – 10:00 pm	Monthly meeting, UFO building
Jul 15	•	Goddard Contest
Jul 21	10:00 - 04:00 pm	Sport launch
Jul 28 -		NARAM-49
Aug 03		NARAM-49
Aug 04	05:30 - 10:00 pm	Monthly meeting
Aug 05	01:00 – 02:00 pm	Goddard public launch
Aug 18	10:00 – 04:00 pm	Sport Launch
Ü	•	•
Sep 01	05:30 - 10:00 pm	Monthly meeting, build "A rocket"
Sep 02	01:00 – 02:00 pm	Goddard public launch
Sep 15	10:00 – 10:00 pm	Sport Launch, night launch, R/C fun fly 2 pm
•	•	
Oct 06	05:30 – 10:00 pm	Monthly meeting, Sputnik building session
Oct 07		Goddard public launch
Oct 20	*	Sport launch, FAI Practice
	1	,
Nov 03	12:00 – 05:00 pm	Planning meeting
Nov 03	05:30 – 10:00 pm	Monthly meeting, glider building session
Nov 04		Goddard public launch
Nov 17		OPOSSUM-12, Sport launch
Dec 01	05:30 - 10:00 pm	Potluck Dinner
Dec 02		Goddard public launch
Dec 15	10:00 – 04:00 pm	*
		1

Sport launches are held at Old National Pike 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. Questions? Call Club President Jennifer Ash-Poole at 410-674-6262 or visit NARHAMS online at http:// www.narhams.org







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# Team America Rocketry Challenge 2007 Final Results

		Final Results									
	Team						Duration	Weight	Length	Altitude	
Place	Number	Team Name	City	State	Finals	Motor(s)	(sec)	(grams)	(cm)	(feet)	Score
							Goal:45			Goal:850	
1	5556	Newark Memorial High School	Newark	CA	4th	3xD12-7	44.14	530	70	851	1.86
2	5050	Madison West High School (Team 2)	Madison	WI	3rd	G64-10	47.42	1160	101	849	3.42
3	5666	W.G. Enloe High School	Raleigh	NC	1st	F20-4	42.45	516	73	849	3.55
4	5282	Millington High School	Millington	MI	4th	F39-6	45.31	420	91	846	4.31
5	5485	Booker T. Washington High School (Team 2)	Houston	TX	1st	F24-7	42.61	450	79	848	4.39
6	5287	Plantation High School (Team 2)	Plantation	FL	4th	3xD12-7	47.14	450	91	845	7.14
7	5055	Mulberry Grove High School	Mulberry Grove	IL	2nd	F42-8	49.15	568	99	853	7.15
8	5156	Lime Kiln Middle School	Fulton	MD	1st	F39-6	47.77	462	97	844	8.77
9	5088	Federation of Galaxy Explorers	Chantilly	VA	3rd	F50-6	45.46	780	114	841	9.46
10	5438	Charles W. Flanagan High School	Pembroke Pines	FL	2nd	F23-4	34.78	445	57	850	10.22
11	5430	Middletown High School	Middletown	MD	4th	D12-5,2xB6-6	49.34	250	67	856	10.34
12	5093	Frenship High School (Team 1)	Wolfforth	TX	2nd	F42-4	52.19	570	76	854	11.19
13	5167	Los Gatos High School	Los Gatos	CA	5th	F39-7	45.54	450	93	861	11.54
14	5545	Longfellow Middle School	Falls Church	VA	2nd	E30-4	45.28	370	75	862	12.28
15	5068	Washington County 4-H	Slinger	WI	1st	F39-6	46.26	481	62	862	13.26
16	5286	Plantation High School (Team 1)	Plantation	FL	4th	3xD12-7	46.88	500	97	836	15.88
17	5141	Logan Elm High School	Circleville	OH	1st	G80-7	54.66	940	126	843	16.66
18	5148	Seabrook Intermediate School	Seabrook	TX	1st	2xE9-6	36.07	500	87	858	16.93
19	5371	Krueger Middle School	San Antonio	TX	1st	F60-4	57.14	835	93	845	17.14
20	5133	Flying Tigers 4-H Aerospace Club	Germantown	MD	1st	E30-4	50.89	382	78	838	17.89
21	5374	Spanish River High School	Boca Raton	FL	1st	F40-4	52.33	570	126	861	18.33
22	5272	Harlingen High School South	Harlingen	TX	1st	F24-4	43.25	365	81	831	20.75
23	5126	North Canton Middle School	North Canton	OH	1st	G40-4	51.39	960	90	866	22.39
24	5119	Explorer Post 1010 (Team 2)	Gaithersburg	MD	2nd	F24-4	48.53	386	50	831	22.53
25	5118	Explorer Post 1010 (Team 1)	Gaithersburg	MD	2nd	E18-4	41.63	354	66	871	24.37
26	5576	Denton High School JROTC	Denton	TX	1st	G40-4	33.33	974	100	837	24.67
27	5467	Shelby Jr. High (Team 3)	Shelby Township	MI	4th	G77-7	39.50	1157	97	870	25.50
28	5244	Washington Technology Middle School	Saint Paul	MN	1st	E30-7	57.53	310	65	832	30.53
29	5304	Turner High School	Kansas City	KS	1st	F25-6	49.01	715	103	820	34.01
30	5178	Shippensburg High School	Shippensburg	PA	1st	G64-7	45.61	1190	148	887	37.61
31	5466	Shelby Jr. High (Team 2)	Shelby Township	MI	4th	G54-8	43.20	882	89	812	39.80
32	5479	Trinity Preparatory School	Winter Park	FL	1st	F25-4	74.14	720	99	861	40.14
33	5023	Venture Crew 153	Middlesex	NC	1st	F52-8	41.83	765	91	887	40.17
34	5456	Explorer Post 1010 (Team 3)	Gaithersburg	MD	2nd	E9-6	60.86	260	39	825	40.86



# The Capitol Cup FAI World Cup Spacemodeling Contest October 27-28, 2007

Great Meadow at The Plains, VA

S4A (A-engine boost-glider)

S6A (A engine streamer duration)

S8E/P (E-engine radio-controlled rocket glider)

S9A (A engine gyrocopter)



# Team America Rocketry Challenge 2007 Final Results

		Final Results									
	Team						Duration	Weight	Length	Altitude	
Place	Number	Team Name	City	State	Finals	Motor(s)	(sec)	(grams)	(cm)	(feet)	Score
35		Great Commission Academy (Team 1)	Indianapolis	IN	2nd	F12-5	47.42	330	94	889	41.42
36	5103	Dakota County 4-H Federation	Farmington	MN	3rd	F39-6	41.28	463	64	811	42.72
37	5559	Dublin-Scioto High School	Dublin	ОН	4th	F50-6	42.78	776	114	807	45.22
38		Madison High School (Team 2)	Madison	ОН	2nd	E18-7	72.63	340	54	868	45.63
39	5288	Plantation High School (Team 3)	Plantation	FL	4th	2xD12-7	50.40	332	62	891	46.40
40	5162	Century High School	Bismarck	ND	2nd	F24-7	36.17	391	58	889	47.83
41	5227	Francis W. Parker Charter Essential School	Devens	MA	2nd	2xD12-7	56.85	340	78	887	48.85
42	5336	Lloyd C. Bird High School	Chesterfield	VA	3rd	2xD12-7	46.33	290	45	801	50.33
43	5587	Boy Scout Troop 143	Giddings	TX	1st	E15-4	48.47	261	59	897	50.47
44	5114	Hinsdale Central High School	Hinsdale	IL	1st	G77-7	48.66	1070	118	899	52.66
45	5425	Booker T. Washington High School (Team 1)	Houston	TX	1st	E15-7	46.90	287	66	799	52.90
46	5234	California Academy of Math and Science	Carson	CA	4th	E18-4	52.45	370	67	804	53.45
47	5459	Robert E. Lee High School	Staunton	VA	3rd	2xD12-7	43.78	410	66	796	55.22
48	5426	Penn Manor High School (Team 3)	Millersville	PA	5th	G64-7	24.12	1229	99	885	55.88
49	5076	Madison High School (Team 1)	Madison	OH	2nd	E18-7	65.34	360	58	887	57.34
50	5302	Weare Middle School	Weare	NH	2nd	G54-6	44.39	920	95	793	57.61
51	5018	Thomas Jefferson High School	Rockford	IL	1st	F52-6	49.24	794	97	795	59.24
52	5001	Boy Scout Troop 566	Warner Robins	GA	1st	F42-8	45.55	588	89	909	59.55
53	5450	Marticville Middle School (Team 2)	Pequea	PA	1st	G64-7	38.52	1195	99	792	64.48
54	5014	Hearty Homers 4-H	Cottage Grove	MN	1st	F52-8	46.05	750	111	786	65.05
55	5306	Utica High School	Utica	MI	1st	G38-7	47.63	880	115	787	65.63
56	5373	Manor Middle School	Lancaster	PA	2nd	G64-7	38.68	1280	95	790	66.32
57	5009	Long Reach High School	Columbia	MD	2nd	3xD12-3	41.98	471	58	784	69.02
58	5579	East Central High School	San Antonio	TX	5th	G80-4	55.47	860	88	914	74.47
59	5049	Madison West High School (Team 1)	Madison	WI	3rd	G64-10	38.13	1224	99	780	76.87
60	5032	St. Andrews	Park Ridge	IL	3rd	G80-7	39.96	995	113	922	77.04
61	5322	N. Mahaska Jr. Sr. High School	New Sharon	IA	1st	F52-11	38.58	699	102	778	78.42
62	5323	Penn Manor High School (Team 2)	Millersville	PA	5th	G64-7	39.78	1261	81	773	82.22
63	5647	Harlingen High School	Harlingen	TX	2nd	F24-7	50.19	410	69	929	84.19
64	5091	The Buckley School	Sherman Oaks	CA	1st	F52-5	46.74	685	100	933	84.74
65	5040	Forest Academy	Wheaton	IL	1st	F42-8	33.99	584	70	775	86.01
66	5171	Penn Manor High School (Team 1)	Millersville	PA	5th	G64-7	28.21	1199	90	778	88.79
67		Templeton Middle School	Templeton	CA	1st	G77-7	50.23	1035	147	763	92.23
68	5574	Heuvelton Central School	Heuvelton	NY	4th	D12-5	40.81	167	55	757	97.19
69	5433	Clear Lake High School	Houston	TX	1st	F39-6	44.20	437	97	751	99.80
70		Andover High School	Andover	MN	1st	F42-8	43.05	500	118	751	100.95



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#### Oct 7th

1:00PM - 3:00PM Visitors Center Goddard Space Flight Center **PUBLIC LAUNCH** 

#### yışı ıdəs

M900:01 - MA00:01 Old National Pike SPORT LAUNCH

#### puz 1dəs

1:00PM - 3:00PM Visitors Center Goddard Space Flight Center PUBLIC LAUNCH

#### **Faunch Schedule**

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