



# Northern Virginia Association of Rocketry



## Free Press

September - October 2003

### UPCOMING EVENTS

2 December 2003 - Club Meeting at King's Park Community Center at 7 PM.

- Jim Brower – *“Plastic Model Conversion”*

13 December 2003 - Sport Launch at Great Meadow 9 AM- 5 PM

- Team America Practice Flights
- Sport Launch

16 December 2003 - Club Meeting at King's Park Community Center at 7 PM.

- Steve Schwartz - *“Frugal Rocketry”*

21 December 2003 - NOVAAR Christmas Party and Auction King's Park Community Center; 1-5 PM  
*Bring some food for the potluck party, and either bring old rocket materials that you no longer want or need for our annual "rocketry auction" event at the party, or bring money to buy the rocket stuff that others bring – or both!*

4 January 2004 - Club Meeting at King's Park Community Center at 7 PM.

- Trip Barber – *“Tracking”*

18 January 2004 - Building session at Kings Park Community center 1-5 PM

20 January 2004 - Club Meeting at King's Park Community Center at 7 PM;

- Bill Schworer – *“Electronic Payloads”*

24 January 2004 (25 January-Rain/Snow Backup Date) - Sport Launch at Great Meadow 12 Noon - 3 PM

- Team America Practice Flights
- Sport Launch

*(continued on page 5)*



Joe Mahaffey catches Bob Kaplan's BOMARC as it takes to the sky at NOVAAR's August Sport Launch--Photo by Joe Mahaffey

## NOVAAR FREE PRESS

September – October 2003

**Editor:** Greg Bock

**Contributors:** Trip Barber, Krysia Bock, Joe Mahaffey  
Jonathan Rains, Charlie Sykos, and Steve Schwartz

The **NOVAAR Free Press** is the official newsletter of the Northern Virginia Association of Rocketry, NAR Section 205. Subscriptions are included as part of the membership dues.

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7021 Forest View Drive  
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Visit NOVAAR's Web site at:

<http://www.novaar.org>

**Or better yet....**

### ATTEND NOVAAR MEETINGS!

NOVAAR holds meetings twice a month. We meet the first and third Tuesday from 7:00 PM to 8:30 at the Kings Park Community Center in the Kings Park Shopping Center. The shopping center is in North Springfield, two miles outside the Beltway (I495) at the intersection of Braddock and Burke Lake Road.

Dues are \$5.00 per year for ages 13 or younger, \$8.00 per year for ages 14-18, and \$10.00 per year for age 19 or older. The maximum yearly membership fee for a family is \$20. Make checks payable to "NOVAAR" and send to the Treasurer at:

Roger Hillson  
ATTN: NOVAAR RENEWAL  
4317 Selkirk Drive  
Fairfax, VA 22032

Club members who wish to receive important announcements of launches, meetings and other club activities should send their E-mail address to Roger Hillson ([hillson@erols.com](mailto:hillson@erols.com))

## President's Corner: Big Year Ahead

By Trip Barber

2004 promises to be one of the biggest years in a long time for NOVAAR. We have a flying schedule for our launch site at Great Meadow that has us flying once per month year-round, the most launches we have ever had in a year. We are hosting two large national rocket launches out there as well, the Team America Rocketry Challenge 2004 flyoffs on May 15, and the NAR Annual Meet (NARAM-46) the week of July 31 to August 6. Hundreds of rocket fliers will be joining us for each of these events, and our teamwork and skill in organizing big events will be on display nationally. And finally, we appear to be succeeding in our campaign to get a model rocket flying site (for once per month public flying with us running the range) incorporated into the master plan for Fairfax County's new Laurel Hill Park, on the former Lorton Prison site. This public launch site, if it remains in the final plan for Laurel Hill, will probably not open up until 2005, but it could give us a model-rocket-only site much closer in to our membership, and could open huge opportunities for NOVAAR to expand its membership.

I invite all of NOVAAR's members to come join us for our traditional annual Holiday Party and Auction on Sunday, December 21, 1-5 PM at the Community Room in the Kings Park Shopping Center, our normal meeting site. Bring some food for the potluck party, and either bring old rocket materials that you no longer want or need for our annual "rocketry auction" event at the party, or bring money to buy the rocket stuff that others bring – or both!

**DON'T MISS JIM BROWER'S TALK ON THE PLASTIC MODEL CONVERSION CONTEST EVENT!!  
DECEMBER 2<sup>nd</sup> AT 7 PM AT THE KING'S PARK COMMUNITY CENTER!!**



## Oh Give Me a Hotel Where the Rocketeers Roam

By Jonathan Rains

(Photos by Jonathan Rains and Charlie Sykos)

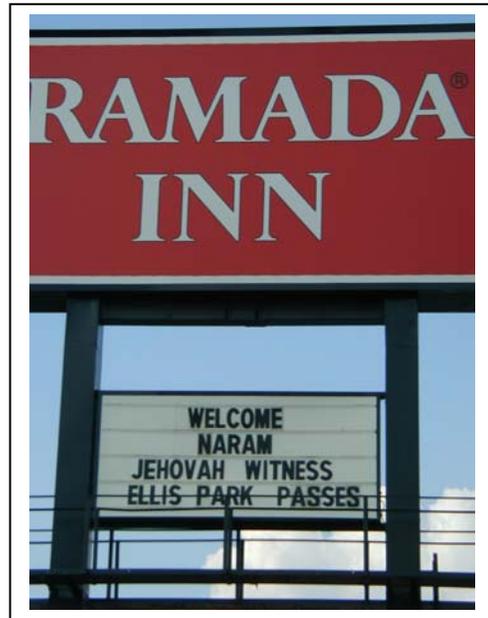
Rocketeers are special people. Rocket hotels are not so special. Our hotel at NARAM-45 this summer in Henderson, Kentucky brought back all sorts of memories of the fine establishments I have had the privilege staying at the past thirty or so years.

Perhaps the most famous of all rocket hotels are the host hotels for MARS and ECRM, the Tuckaway Manor in Aberdeen, Maryland and Browns #2 in Port Royal, Virginia. This goes back to the days when Maryland's Star Spangled Banner section hosted MARS at the Aberdeen Proving Grounds and NARHAMS held ECRM at Fort A.P. Hill, both Army bases. These contests were big meets, often drawing upwards to 100 contestants from sections up and down the east coast. As I remember it, both hotels were motor inns with only one floor. Browns #2 was next door to Aunt Jennie's Pancake House. I still remember that at one ECRM a set of salt and pepper shakers and a Moo creamer were awarded as rocket prizes, both of which were marked "these items for sale, ask your waitress." There wasn't much to either hotel. I can't recall whether they had phones or color TVs. While not deserving any AAA stars, these were great rocket hotels. First, whatever furniture was in each room was so dinged up you did not have to concern yourself about an Exacto cut here or a glue spot there. Second, opening up the curtains in the front of the room allowed you to show off your rockets. Lastly, the layout of the hotels allowed you to roam from room to room observing the frantic building sessions. Back in ye olden days you arrived at the meet with a bag of parts, stayed up all night building, emerged with a finished rocket at dawn and then promptly re-kited your model at the flying field. Why such strange behavior you might ask? One does not stay up all night if your parents are around. Precisely my point! Here I was a teenager at the rocket hotel with no parental supervision and I was on cloud nine.

Fast forward twenty years or so. Thanks to corporate travel (and the associated expense accounts) we've been exposed to lodging establishments somewhat above the Tuckaway and Browns #2. I'm not talking Four Seasons, rather Marriotts and Hyatts. To be honest, we're all getting soft. So, when we find ourselves at a sleazy rocket hotel we complain. We even hop in our cars and try to find better accommodations. A case in point, while I wasn't at the Muncie NARAM, I hear that the host hotel had hot and cold running water; some rooms had only cold water and others

hot. Locks on the door were optional. My personal worst recent experience was at what is now the Red Carpet Inn in Henrietta, NY. This was the host hotel for NYPOWER. My wife inquired if the pool would be open at the time of the launch (July 4<sup>th</sup>) and was told that it might be. We arrived to find large weeds growing from cracks in the concrete at the bottom of the pool. There was no furniture in the room; no phone and our towels were the size of postage stamps. There was a stampede of rocketeers out of the hotel seeking better accommodations.

This year's NARAM host hotel, the Ramada, was sold out, so we wound up next door in the Henderson Super 8. The first thing that raced through my mind when Charlie Sykos and I checked in was, thank God I didn't bring my wife and kids. I'd still be hearing about it. I had reserved a non-smoking room and wound up in smoking. Paint was peeling in the bathroom. One thing that could be said is that the place was cheap and I guess you get what you pay for.



The dining experience at NARAM was first rate – not. It all began during our 12+ hour drive to NARAM with a lunch stop at the McDonalds in Huntington, WV. What would you say if I told you it took 20 minutes to get served? This was with about six people behind the counter going every which way accomplishing zip. Our first meal in Henderson was at Jerry's Restaurant where I wasn't sure of the API Motor Oil rating for the brown gravy they served. We settled for breakfast at Arby's each morning after waiting forever at the McDonalds. Just about the only place in town with decent chow was the Tumbleweed. We ate there twice. I'm not going back to Ralph's Hickory Pit anytime soon, it was the pits.

One goes to NARAM to fly rockets and renew acquaintances. Hotels and restaurants are secondary. This year's NARAM kindled many memories of times past. Like I said earlier, as we get older (and perhaps wiser), we get soft. My thanks to NARAM-45 for bringing back the old days.

Lest I leave you with the impression that that all we did was dine in Henderson, KY and slept at the plush hotels there, here are some pictures that prove we flew rockets.



John and Andrew Hochheimer relax during one of their quiet moments as timers at NARAM 45.



Here I am with the *Kealakekua* Plastic Model Conversion entry.



Plastic Model Take-Off and Landing



Trip Barber, serving his RSO shift, launches a contestant's rocket.



NOVAAR's NARAM 45 participants in pose for a group picture after dining at one of the 4 star restaurants in Henderson, KY.



**454 seconds-- WOW!**

Team *Kealakekua* (Jonathan Rains and Charlie Sykos) with their winning entry in F Dual Eggloft Duration

**NEXT ISSUE**  
**Jeff Perry's SA-14**



# UPCOMING EVENTS

*(Continued from front cover)*

NOVAAR meets the 1st and 3rd Tuesday of each month at the Kings Park Community Center. Meetings begin promptly at 7 pm and usually last 1-1/2 hours. The Community Center is located in the King's Park Shopping Center, Braddock Rd. and Burke Lake Rd. — two miles outside the Beltway in Springfield. NOVAAR flies at Great Meadow - Travel on I-66 to The Plains Exit #31; proceed south on Old Tavern Rd. (Rt. 245) to enter the gate.

21 February 2004 (22 February-Rain/Snow Backup Date) - Sport Launch at Great Meadow 12 Noon - 3 PM

- Team America Practice Flights

13 March 2004 (14 March-Rain/Snow Backup Date) - Sport Launch at Great Meadow 12 Noon - 3 PM

- Team America Practice Flights
- Sport Launch

3 – 4 April 2004 (Both Days) - NOVAAR Section Meet /Sport Launch at Great Meadow 9 AM – 5 PM

- Team America Practice Flights
- Sport Launch
- Section Meet (April 3<sup>rd</sup>)

Events:

- B Payload
- B Eggloft Duration
- 1/2 A Streamer Duration

15 – 16 May 2004 Team America Flyoff (both days) at Great Meadow

June 5 – 6 2004 - ECRM at Middletown, MD, hosted by NARHAMS ( [www.narhams.org](http://www.narhams.org) )

Events:

- Plastic Model Conversion
- A Rocket Glider Duration
- B Payload
- 1/2A Helicopter Duration

12 June 2004 - Sport Launch at Great Meadow 9 AM – 5 PM

June 26 – 27 2004 - Regional at Carlisle, PA hosted by SPAAR ([www.spaar.org](http://www.spaar.org))

Events:

- 1/2 A Streamer Duration
- 1/2 A Helicopter Duration
- 1/2 A Rocket Glider Duration
- 1/2 A Parachute Duration (multi-round)
- B Eggloft Altitude

## Hurricane Team Work

By Dr. Tony Phillips

On a gray breezy day last month thousands of people got in their cars and reluctantly left home. U.S. east coast highways were thick with traffic. Schools were closed. Businesses shut down.

Perfect!

When powerful Hurricane Isabel arrived some 38 hours later nearly everyone in the storm's path had fled to safety. Days later Vice Admiral Lautenbacher, in a briefing to President Bush, praised the National Atmospheric and Oceanic Administration (NOAA): "Without NOAA's excellent track forecasts, hurricane Isabel's toll on lives and property would have been even more devastating. This is NOAA's first year of providing 5-day forecasts-and the 5-day forecast for Isabel was as good as our 2-day forecasts have been over the last decade."

Many people in NOAA played a role. A team of pilots, for instance, flew Gulfstream-IV High Altitude Surveillance jets right up to the approaching hurricane, logging 25,000 miles in the days before landfall. Their jets deployed devices called dropsondes-little weather stations that fall toward the sea, measuring pressure, humidity, temperature and wind velocity as they plummet. The data were radioed back to the aircraft and transmitted to forecasters on shore.

While two Gulfstream-IV crews flew night and day around the storm, a NOAA satellite named GOES-EAST monitored Isabel from above. (GOES is short for Geostationary Operational Environmental Satellite.)

From an orbit 22,300 miles above the Atlantic Ocean, GOES-EAST had a unique view. "It could see the entire hurricane at once," says Ron Gird of NOAA. "Scientists used infrared spectrometers onboard the satellite to estimate the height of the storm clouds, their temperature and water content. GOES can also measure the temperature of the ocean surface-the source of power for hurricanes."

Constant streams of data from GOES and the Gulfstream aircraft were fed to supercomputers at NOAA's Environmental Modeling Center in Maryland where sophisticated programs, developed over the years by meteorologists and programmers, calculated the storm's most likely path.

The NASA Space Place program has two Web sites aimed at children but equally as fun and educational for adults. NASA invites you to explore this web site at

<http://spaceplace.nasa.gov>

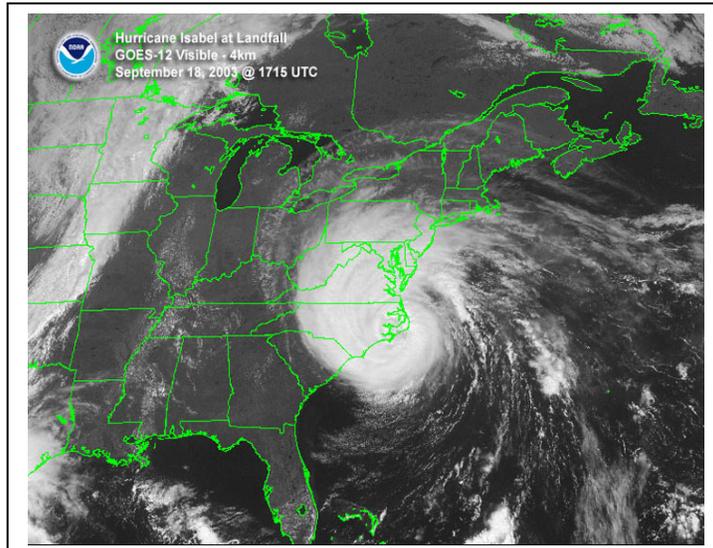
Supercomputers. Satellites. Jet airplanes. Scientists. Programmers. Pilots. It took a big team using a lot of tools to predict where Isabel would go-accurately and with time to spare.

Says Vice Admiral Lautenbacher: "I hope everyone at NOAA shares the pride of being part of a team effort that so effectively warned the public of impending danger and enabled citizens to take action to protect themselves and their loved ones."

Well done, indeed.

To learn more about the GOES, see [www.oso.noaa.gov/goes/](http://www.oso.noaa.gov/goes/). For kids, the SciJinks Weather Laboratory at [scijinks.nasa.gov](http://scijinks.nasa.gov) has lots of fun activities and fascinating facts about the wild world of weather.

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



*GOES-East satellite image of hurricane Isabel as it makes landfall on September 18, 2003 at 1715 UTC.*

### NASA'S Space Place

Nancy Leon from NASA's Education and Public Outreach Program contributed the article above. NASA created the Space Place program to give the public the opportunity to explore the space program's technological advancements and delve into its discoveries.

A component of that outreach, the Space Place column is offered to select venues like rocket clubs. The column includes varied topics from all of the areas within NASA -- planetary exploration, of course, but also observing earth from space, and even spin-offs from space.

## NOVAAR Volunteers Help Boy Scouts Obtain Space Exploration Merit Badges

By Steve Schwartz

On October 18, NOVAAR volunteers helped between 60 and 80 scouts earn their Space Exploration Merit badge at their fall Camporee. The theme of this year's Camporee was a celebration of "100 Years of Flight". About 500 area scouts attended the Camporee, held at the Flying Circus Aerodrome in Bealton, Virginia. They worked on a variety of Merit Badges including, Aviation, Astronomy, Weather, Radio, and Space Exploration.

To obtain the Space Exploration Merit Badge a scout must fulfill eight requirements. Seven of these cover the history or knowledge of some aspect of space flight and scout leaders taught these areas. The last requirement involves building and flying a model rocket, and this is where NOVAAR stepped in. We set up our equipment and ran the launch range all day.

Each scout had pre built his rocket, so the club did not hold any building sessions. Our work consisted of distributing engines, helping with flight prep, performing a safety check, and launching each rocket. Most of the scouts built the Estes Alpha III rocket, but a few built other more challenging designs. As it turned out many of the rockets needed fixing before they could fly, and maybe the club should have helped with building. Thank goodness for CA glue, Xacto knives, and pliers.

rocket on the launch rod and hook up the leads to the motor igniter. As each pad was ready to fly, the rocket owner was allowed to approach the control panel and actually launch their rocket.



Trip Barber assists scout in launching his rocket.

The scouts really enjoyed flying their rockets, and there was a constant excitement in the air all day. We frequently had to remind them of safety rules, and caution them to move back behind roped off areas.



Greg Bock and Mitch Guess issued motors and performed final safety checks.



Most of the scouts built the classic Estes Alpha III rocket

After the NOVAAR volunteers assisted each scout with their safety check, the scouts were allowed into the launch area where NOVAAR staff helped them put the

Each scout was required to conduct two flights, and most used an A8-3 engine for the 1<sup>st</sup> flight and a B6-4 for the 2<sup>nd</sup>. On the 2<sup>nd</sup> flight, the scout also needed to accomplish an objective. We recommended using a streamer recovery or trying spot landing for objectives. Most scouts tried spot landing and came very close to the target—a spot located about 25 feet from the launch area.,



**NOVAAR MEMBERSHIP APPLICATION**

Dues are \$5.00 per year for ages 13 or younger, \$8.00 per year for ages 14-18, and \$10.00 per year for age 19 or older. The maximum yearly membership fee for a family is \$20.00. Make checks payable to "NOVAAR" and send to the Treasurer at:

Roger Hillson  
ATTN: NOVAAR RENEWAL  
4317 Selkirk Drive  
Fairfax, VA 22032

Roger can also be reached by email (hillson@erols.com) and telephone (703-978-6957 evenings). Be sure and put "NOVAAR RENEWAL" somewhere on the outside of the envelope, and enclose a copy of the renewal application.

Date \_\_\_\_\_ Please check one:  New Member  Renewal

NAME: \_\_\_\_\_

DATE OF BIRTH \_\_\_\_\_

STREET: \_\_\_\_\_

CITY: \_\_\_\_\_ STATE: \_\_\_\_\_ ZIP: \_\_\_\_\_

HOME PHONE: \_\_\_\_\_

NAR membership number, if a member: \_\_\_\_\_

EMAIL ADDRESS  
(Optional) \_\_\_\_\_

I heard about NOVAAR from:  
\_\_\_\_\_

**Dues are for one year of NOVAAR membership and do not include optional NAR Membership.**

**Please check one category based on your age as of the previous July 1st:**

**One:  Age 13 or younger (\$5)  Ages 14-18 (\$8)  Age 19 or older (\$10)**

**NOVAAR FREE PRESS**  
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