

# THE LEADING EDGE

Newsletter of the Northern Illinois Rocketry Association,  
NAR Section #117

Volume 27, Number 2  
September/October 2004

## Club News and Notes

**Holiday Schedule** - At this time our holiday schedule has little written in stone. NIRA's holiday schedule is there to take the place of launches in the cold weather. Examples include building sessions and field trips. In December it is not unusual for the holiday party (which nobody has offered to host yet—see page 3) to take that month's place. January 16th is already scheduled for a building session at Eric Betz's place in Poplar Grove. February is still open. In March we sometimes have a launch and sometimes we don't. With the advent of TARC March has been an increasingly popular month to brave the weather.

Like March, November is frequently an ambiguous month. This year we are currently scheduled to have a regular launch. However with all the atmospheric abnormalities this year the weather just might become too arctic. With this in mind we would like to hear alternative proposals for this particular event.

**Scout Launch in October** - An additional launch has been scheduled for this month. On Saturday, October 30th, there will be a cub scout launch at our regular location, East Branch Forest preserve from 12-4pm. Cal Jestice is coordinating this event where at least two packs of cub scouts will be launching their rockets. Many of them for the first time. All NIRA members are welcome to attend as if it were a normal launch, however priority and attention will be given to the scouts. Cal is also asking for volunteers to help with his crowd. This would include setup and prepping mostly. This will also be a good opportunity for those who spent the regular launch day at the Hobby Show.

**Building Session in January** - Eric Betz has volunteered to host the January building session at his home in Poplar Grove, IL. This will be a first for both him and the club for such an event. Stay tuned for map and directions in the next issue.

## Hobby Show News

It's time once again for the annual Hobby Show!!! This year its going by the name iHobby Expo. Former names include RCHTA and National Model and Hobby Show. Whatever they're calling themselves it is being held in the usual location at the Donald E. Stephens Convention Center in Rosemont, IL.



The show runs October 14-17 **but is only open to the public the 16th and 17th**. Hours are 10-5 and admission is \$10 for people over 12, but check out their \$2 online coupon! The show is a huge convention of manufacturers, suppliers, and retailers such as Revell, Dubro, Xacto, Testors, Lionel, and many, many others. Anyone who wants to show their stuff has at least one of the 540 booths already. A retail store will be there for those of you who just HAVE to have some of the featured items at the show. There are also shows, seminars, and hands-on events. Usually these include driving an R/C car around a track with a group of people. There are \$500 in prizes to be won at the slot car track. The air cage is usually a major draw. "Make and Take" this year seems to be limited to plastic models supplied by Revell. In the past, NIRA also had their own Make and Take, but there are no attending rocket manufacturers this year. However, NIRA, NAR, and Tripoli will have booths to show their stuff. If anyone has any rockets or rocket memorabilia (such as posters, videos, photos, etc.) that would go well with the booth, please let us know.

On Saturday the 16th you can meet special guest Buzz Aldrin! Aldrin is a veteran astronaut and flew the first manned mission to the moon on Apollo 11. He will be available for autographs from 12-2 pm.

This year NIRA once again has its own booth and will be dutifully staffed by Tori House and Mary Hojeck.



**Meet Apollo 11 astronaut Buzz Aldrin at the Hobby Show on October 16th.**



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### NIRA Officers

President – Terry House  
Vice President – Adam Elliott  
Secretary/Treasurer – Martin Schrader  
RSO – Bob Kaplow

### This Issue's Leading Edge Staff

Editor – Adam Elliott  
Production – Take a guess

### This Issue's Contributors

Jonathan Charbonneau, Adam Elliott, Rick Gaff, Bob Kaplow

THE LEADING EDGE is published bimonthly by and for members of the Northern Illinois Rocketry Association (NIRA), NAR Section #117, and is dedicated to the idea that Sport Rocketry is FUN!

Articles, plans, photos, other newsletters, and news items of interest should be sent to the new editor:

Adam Elliott  
0000 Street Drive

or emailed to adamnira at yahoo dot com  
Photos will be returned, other material returned upon requested.

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Send membership applications (dues: \$6 per youth, \$8 per adult, \$12 per family, including a six issue subscription to the Leading Edge), non-member subscriptions (\$10 per six issues), and change of address notifications to:

Martin Schrader  
0000 Street Drive

Web site: <http://www.NIRA-rocketry.org>

Email list: see website

InfoLine: volunteer today!



## CLUB MEETING DATES

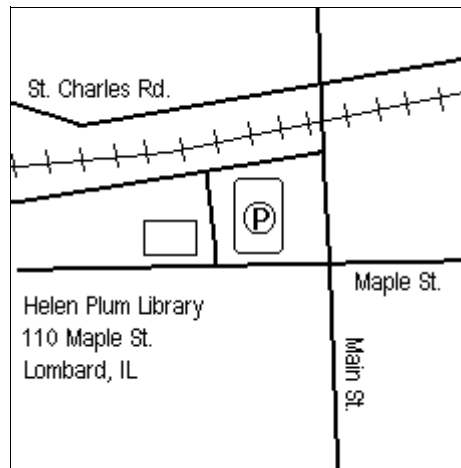
All meetings start at 7:30 pm. Bring a model for "Model of the Month." We always need volunteers for pre-meeting lectures, contact Terry House if you want to schedule a date. The location is usually the Helen Plum Memorial Library, 110 Maple St, Lombard, IL

**November 5**

**December 3**

**January 7**

**February 4**

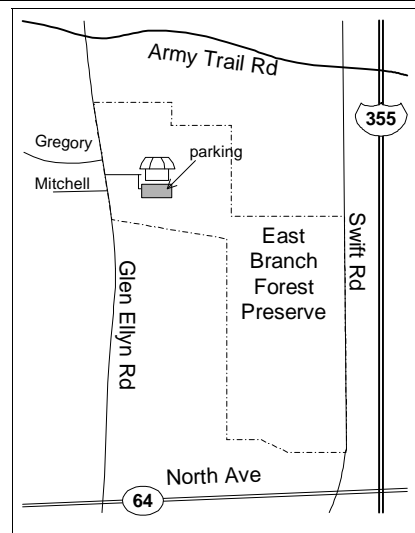


## CLUB LAUNCH DATES AND OTHER ACTIVITIES

Launches are BYOL (bring your own launcher). Call the NIRA infoline for pre-launch information: there is no infoline. Volunteer today!

As the map shows, our new launch field is the East Branch Forest Preserve but the arrangement may not be permanent! **Please** call/check the infoline/website before coming!

October 16-17 Hobby Show, Rosemont, IL  
October 17 East Branch Forest Preserve  
October 30 Scout Launch, East Branch  
November 21 East Branch Forest Preserve  
December 12 and/or 19 Event and location TBD  
January 16 Building Session at Eric Betz's



## General Elections Coming in January

Every January NIRA has its officer election. The positions open to voting are president, vice-president, secretary/treasurer, and range safety officer. There is no news yet on whether or not the incumbents will be running again.

The rules are simple: anyone may nominate anyone else for any position. Election is done by a show of hands or ballot at the January meeting. Therefore you must be present to vote.

## Featured Site of the Month

**Al's Hobby Shop.** Located in Elmhurst, IL, they have pretty much everything you need and more. Al's will be in attendance at the iHobbyExpo.  
<http://www.alshobbyshop.com>

## Coming Next Issue!

Aliens invade! Newsletter becomes otherworldly! Characters become unstable! Decoder ring required to read!

**Trailer Wanted!** - Recently NIRA has addressed the issue of hauling around club equipment. Treasurer Marty Schrader has taken on the responsibility of storing and hauling said equipment to and from events. As he learned faster than a Mosquito on an A10, this is too much for a single passenger car to hold comfortably. Our solution to this problem is that NIRA should purchase a trailer. For our purposes a 5' x 8' enclosed trailer or maybe a little bigger would suit our needs. This needs to be nothing fancy but it does need to work. Pace American manufactures exemplary models of trailers that would suit our needs. However, any similar comparable item should fit the bill.

NIRA has formed a Trailer Committee to handle this situation. So far their findings indicate that luck might play a big part in what we get. This is because of the huge used trailer market. So many people buy a trailer and only use it a few times before they realize it just sits in their yard most of the time that they finally decide to sell it. Therefore for less than the price of a brand new one we should be able to afford a bit of luxury, maybe even air conditioning! Other people have suggested a camper or pop-up camper so we can expand our uses and occasional comfort needs, but this sounds more cumbersome, more expensive to operate, and takes away from our primary goal of having a big enough trailer to simply and easily haul the club's equipment around. Besides, if we ever do have the need for a camper there are members that can help us out with that option already.

If any members have information that can help this cause please contact the Trailer Committee at [vicepresident@nira-rocketry.org](mailto:vicepresident@nira-rocketry.org). A real boon to this search would be a side-of-the-road deal.

In a related part to the trailer search, we would like to know how many NIRA members actually have a trailer hitch on their vehicle. Currently only Marty Schrader has a hitch and Adam Elliott has sworn to get one soon. Please contact the Trailer Committee at [vicepresident@nira-rocketry.org](mailto:vicepresident@nira-rocketry.org) if you actually have or are planning to get a trailer hitch.

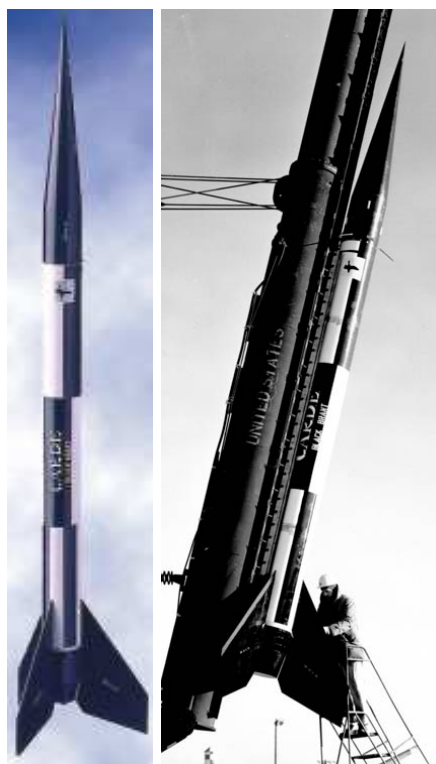
**Field Search and WTGG** - Due to circumstances well beyond our control our field at Beaver Run Sod Farm that we regularly use for Watch The Grass Grow is no longer available. There is little hope for it becoming available ever again. All efforts to re-schedule and relocate WTGG have failed and there fore will not be held this year.

As usual, this is our plea for any information leading to the acquisition of a launch site capable of holding big events. Contact the club today if you have a lead.

**Holiday Party** - Traditionally NIRA has some kind of get-together for a holiday party. This is not normally a building session, but more like a Tupperware party, except there's more cookies, crackers, and cold cuts than casserole. So far this year nobody has volunteered to host the party themselves, but Frank DiMatteo had presented an intriguing option.

Frank works with the Rosemont park district where they have meeting rooms (well, at least one) complete with tables and chairs and a full kitchen. These rooms can hold up to 80 people. The advantage of this is that someone's house won't get spilled cider and super-glue spilled on their carpets. While the price tag of \$125 for 4 hours and \$25 each additional hour might be a tough sell with the NIRA treasury it is, so far, the only offer presented.

If you would like to host this year's NIRA holiday party please contact the club president.



**Go faster for less! Which goes faster? Which has a greater  $\Delta V$ ?**

## Confused Stages - Stage 35

by Jonathan Charbonneau

A scale model of a Black Brant II takes off on a D12-7 engine. "Wow is that fast!" Tom chatters. "Not as fast as the real thing," Syed exclaims. The dispute continues between Tom and Syed. Tom shows Syed videos of the model and the real Black Brant II pointing out how much "faster" the model took off versus the real rocket. "But...", exclaims Syed. "No if's, and's, or but's!" Tom screams, interrupting Syed.

This argument could drag on for who knows how long; hours, even days. Can you resolve their conflict? Think carefully and don't be to hasty.

If you have the resolution, good for you. If you're stumped, read on.

Answer: the real rocket is faster than the model but the model appears to be faster. "How?" you ask? The paradox lies in the scaling. Scaling isn't just in the size of the model. It's in the speed and acceleration too.

The real speed and real acceleration of the model are slower than the speed and acceleration of the real rocket. The "scale speed" and "scale acceleration" are faster than the real rocket's speed and acceleration. The Factor by which the model is slower is smaller than the factor by which the model is smaller. In the above example, the real Black Brant II has an acceleration of around 30 G's. the model which is about 1/13 the size of the real rocket has an acceleration of around 10 to 20 G's. Even 10 G's is 1/3 the real rocket's acceleration. One third is about 4 times as great as 1/13. Therefore the model, while slower than the real McCoy, is faster for its size than the real rocket for its size.

The model takes less time to travel its own length than the real rocket takes to travel its own length.

To calculate scale speed, multiply the models actual speed by the factor by which the model is reduced in relation to the real rocket.

Example: scale speed of a 1/13 scale model is 13 times its actual speed.

Scale acceleration is calculated the same way. If The actual acceleration of the model is 10 to 20 G's and the model is 1/13 the size of the real rocket, the scale acceleration is 130 to 260 G's.



## Group Book Order It's Back!!!

Finally after nearly 15 years out of print one of the best books ever written on manned space flight is back!

This book is a fascinating read. It mostly details the efforts of the men and women who were responsible for putting men in space and on the moon. But it also goes into great depth on how it was done and what their thinking behind everything was. Also presented are almost moment by moment accounts of several events such as Apollo 1 and Apollo 13.

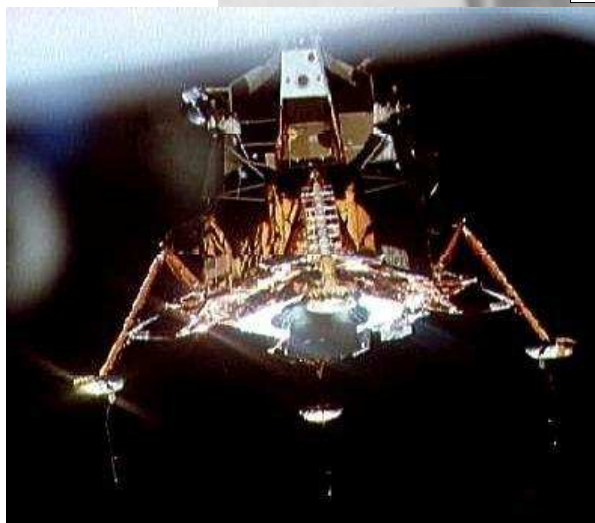


Visit [www.apollostory.com](http://www.apollostory.com) to see more details and photos

As well as how Apollo 11 almost didn't make it. It is written in the third person drawn on hundreds of interviews of people who were actually there doing the work.

The new printing is apparently paperback only and has more photos than the original (some may be in color!)

Bob Kaplow is taking names for a group order. Bob says this must be done in multiples of 16, or you're on your own. Therefore if enough people respond to this article your discounted price will be about \$11.20 per book. This is about 40% off the single copy price. Bob can be reached at [kaplow\\_r@Encompasserve.org](mailto:kaplow_r@Encompasserve.org) or 847-428-1181.



Above: July MOM was won by Frank DiMatteo with his really big Patriot. Adam Elliott showed off his Estes Blackhawk, a kit he built 10 years ago! Below: Young Miss Hojeck won with her Modified Mosquito, it has a recovery device! Father John blinded everybody with his Big Pink AMMARAM in October.







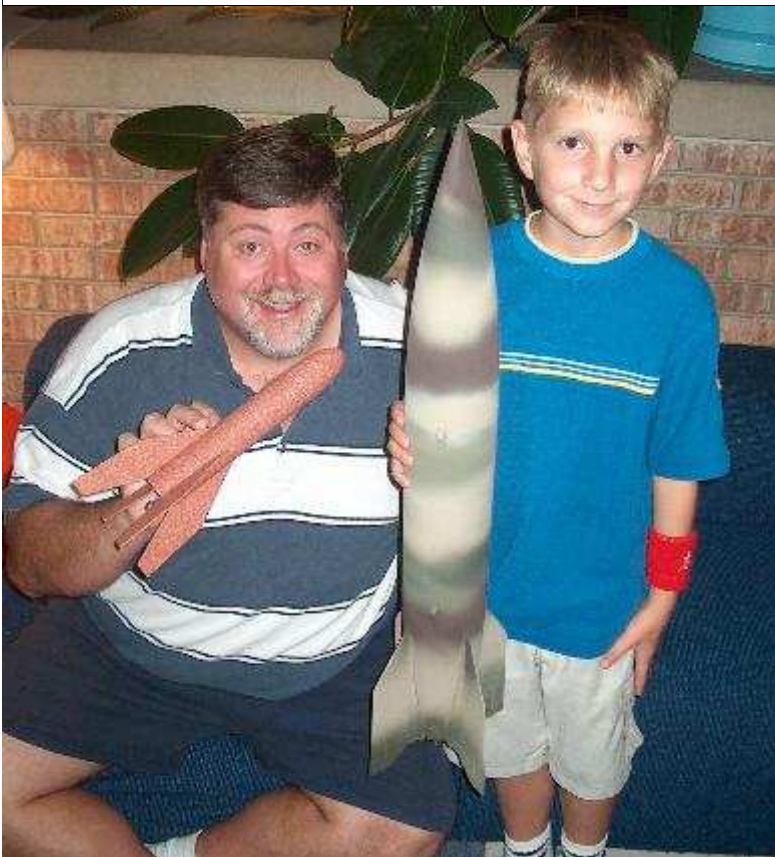
Above: Norm Dziedzic with his TF/Cluster-2 and an unknown youth with her unknown ring-fin model both won in March.

Right: Bob Kaplow and his pop-pod glider. It's made of balsa, kevlar, carbon fiber, jap tissue, and dope! Has won trophies at multiple NARAM's. Bob won in April.

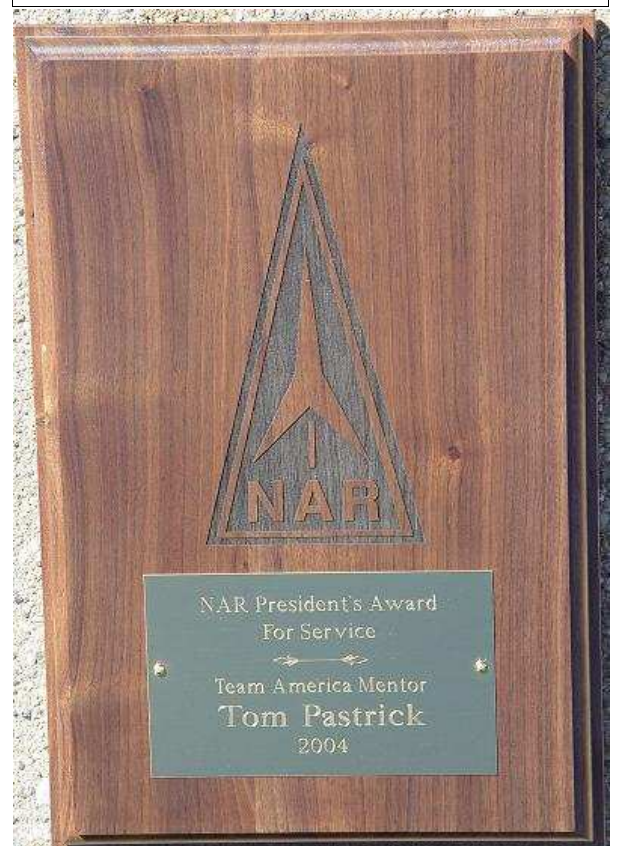
Below: Cal Jestice with his Brick Bertha (because of the texturous paint) and another youth with his modern V-2 kit both won in September.



Below: Tom Pastrick achieved this plaque for his work with the Team America Rocketry Challenge as a mentor.



*For a good time, launch a rocket!*





Above: Would you trust these guys to put men on the moon? See story page 4.

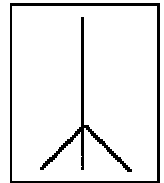
Left: Dr. Norm gives the props during his expanding foam demonstration at the June meeting.



Above: John Boren's rocket glider takes off on yet another flight.



Adam Elliott, Editor  
54321 Warp Factor  
Making It So



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