

# THE LEADING EDGE



Newsletter of the Northern Illinois Rocketry Association, NAR Section #117  
Volume 12, Number 6 - November/December 1989

## Red Baron XI

by Rich McBroom

This CSAR sponsored Open meet was in Hilliard, OH. Robert and I drove east with rain falling on us all the way. The Rocket Gods smiled about 5 miles from Hilliard, and the rain stopped. Although heavily overcast, the field stayed dry all day.

The flying got off to a late start due to the field being overrun by young soccer players. (Sounds like Ackerman Park-Bunny) We chatted about rockets and passed around some NARAM-31 pictures. Fred Williams let us have a peek at some upcoming material for the MIVARS Apogee newsletter. A scale article on the only all British carrier vehicle, the Black Arrow, is planned soon. We all salivated over Tom Secrist's large notebook filled with vintage Estes/Centuri plans. If only a Xerox machine had been handy! Steve Lubecki is a HPR enthusiast, and we found plenty to talk about. Larry Davis had some discontinued Estes kits for sale, and I picked up yet ANOTHER Estes Dragonfly. I've almost got a lifetime supply now.

We eventually got set up at the alternate site at a high school a mile down the road. The flying field was a large asphalt parking lot with a sizeable pond downwind. I was concerned about what asphalt landings were going to do to our eggs, and I got a very BAD feeling about that pond. The site was spacious, though.

The chart gives you some idea of how the overall competition went, so here's the highlights.

(Cont. on Page 4)

## Kitchen Scale

by Lawrence Bercini

One of our most successful "contests" this year was Kitchen Scale. Similar to last year's Bathroom Scale, the object was to build a rocket of something found in a kitchen, or built the model from materials found in the kitchen.

Conglomerates of kitchen materials were popular among the younger competitors. The Goade clan presented some interesting models using orange juice "cans", plastic bottles and plastic spoons. Despite last minute additions of spin tabs and noseweight, they were badly unstable. Andy Linder attempted to model a sugar cube using a large block of styrofoam, stabilized with dowels. The model performed one large loop before bouncing on the ground like some agitated spider. A funny "flight".

Andy Rechnagel also used a conglomerate of salt boxes, plastic knives and cereal box panels and the top of a plastic jug for his entry. The model vaguely resembled a Pershing. Flight characteristics were superb, but recovery was non-existent. The model was last seen defoliating trees near the Glen Ellyn Baptist Church. Nice try, though, Andy!

Don "the Younger", AKA "the Taller", Linder converted the paper cone from an ice cream cone. Don had more trouble with his piston launcher than his model. Eventually he got his model off the ground for a straight up, straight down, but safe flight.

(Cont. on Page 5)

# T Minus 1 - NIRA Events

## MONTHLY MEETINGS

All meetings start at 7:30 PM, and include refreshments, entertainment and a brief business meeting. Don't forget a model for "Model of the Month" voting. We need volunteer speakers to entertain the troops after the business meeting, so call Lawrence Bercini at 561-8098 if you can help with ideas or can speak yourself.

November 3, 1989

SPECIAL GUEST SPEAKER!!!  
MARY ROBERTS VISITS NIRA!!!

Mary Roberts, Estes Industries' Director of Marketing Support will be on hand to tell NIRA members about her job and to answer your questions about Estes and its plans! Also, final, last minute planning for the RCHTA show. DON'T MISS THIS MEETING!!!

December 1, 1989

Nominations for 1990 Officers

January 5, 1990

1990 Officer Election

## 1989 LAUNCH DATES

All launches start at 2:00 PM at Ackerman Park, intersection of St. Charles and Swift Roads in Glen Ellyn. BYOL (bring your own launcher). NAR Insurance required or else RSO must launch your model.

November 19, 1989 - Oddroc Model per last year's rules. This is the last launch of the 1989 season, so don't miss it. If the temperature is below 40, or winds are above 20 MPH, the club will instead meet at the Seven Dwarfs Resturant on Roosevelt Road in Wheaton for food, fun and conversation.

## OTHER INTERESTING ITEMS

November 3-5, 1989 - RCHTA Show, O'Hare Expo Center. NIRA will man the NAR display.

See the article elsewhere in this issue for all details.

November 11-12, 1989 - Fox Valley Regional-HPR Launch; Saturday- F Alt, F BG, G DEL, G SD. Sunday-HPR sport launch on a different field to comply with the 3-48 rule. Call Rich McBroom, CD, at 553-6553

August 4-11, 1990 - National Sport Launch, NARAM-32, and USA-USSR Team Flyoffs, Dallas, TX; FAA Waiver to be sought for the Sport Launch, but only NAR legal models (3.3 lbs) please. NARAM events: 1/2A PD (Multi Round), 1/2A HD, B RG, A SD (Multi Round), D DEL Alt., B SR Alt., C Alt., R&D, B BG, Sport Scale (A&B Div), Giant Sport Scale (C Div), Pred. Dur.; FAI Flyoff events: S3A (A PD), S4B (B BG), S6A (A SD), S8E (E RC RG), to select 5 members for the team; Contact Scott Hunsicker, Box 551592, Dallas, TX 75355.

## CONTRIBUTORS

Lawrence Bercini, Bunny Bundick, Dow Jones News Service, Rich McBroom, Will Safford, Matt Steele

## STAFF

Bunny Bundick - Editor  
Ric Gaff - Publisher  
Barb Bundick - Artist

## THE LEADING EDGE

is published bi-monthly by and for members of the Northern Illinois Rocketry Association, NIRA, NAR Section #117, and is dedicated to the idea that Model Rocketry is FUN! Membership dues are \$3.00 per year and include a six issue subscription to the Leading Edge. Non-member subscriptions are available for \$5.00 per six issues. All membership applications, subscriptions, articles, plans, other newsletters, and news items of interest should be sent to Mark Bundick, Editor, 1350 Lilac Lane, Carol Stream, IL 60188. Any item appearing in the Leading Edge may be reprinted by American Spacemodeling with proper credit given; all other uses require written permission of the Northern Illinois Rocketry Association.

# Heard On The Street

*Rumors and such, with apologies to the Wall Street Journal*

**Estes, Round 2** - After over 100 preliminary investigations, Round Two bidding for Estes Industries is now down to "eight or nine" firms and investment groups, with price reportedly exceeding \$40 million. There is no precise indication about when the sale will close, especially in light of deteriorating conditions in the junk bond market. On other fronts, Damon Biotech announced it agreed to be acquired by Abbott Labs. As part of this transaction, Damon Corporation surrenders of 1.35 million Damon Biotech shares in exchange for the cancellation of a \$3.17 million note. Five Damon executives resigned from Damon Biotech's board as part of the agreement.

**Hinsdale Harland** - Congratulations to Harland Pell who recently landed a new job at Sungard in Hinsdale. His commute is much shorter and the pay is better. Sungard provides disaster back-up computer facilities and support to major corporations, including Bunny's own First National Bank.

**Open UP! FBI!** - A San Francisco FBI raid arrested Christina Reed, an Irish Republican Army member working for an aerospace firm building rocket guidance systems. She also had information on the Tripoli Rocketry Association and LDRS, a High Sierra Rocketry catalog, and Estes rocket motors purchased from Belleville Wholesale Hobby. Martin Quigley, another IRA weapons supplier was arrested in Easton, PA and his telephone records subpoenaed. HPR notables found on the phone records, Tripoli officers, and officials at High Sierra and Belleville were then contacted and interviewed by the FBI. Both persons pleaded innocent to charges of conspiring to violate federal arms export control laws.

**Atlas Able** - General Dynamics now has 20 firm commercial launch orders and 8 options for its enhanced line of Atlas boosters.

Four Atlas versions are available to customers, including the Atlas IIAS, uprated with four Castor IV solid strap-ons, a la the Delta. Better engines and other design improvements mean Atlas will probably see service into the 21st Century.

**Changing His Stripes** - NIRA members noting recent TV ads announcing Federal Express' purchase of Flying Tigers Airlines will now find out ads aren't the only thing that changed with the purchase. Flying Tigers was a reliable, cheap shipper of Class B motors for HPR manufacturers and users. Federal Express has since stopped shipping Class B motors, putting some crimps into HPR activities. No word yet on a substitute shipper.

**All Things Come** - After literally years of searching, NIRA member Tom Beach has finally located the famous Scott P. Layne, modeler of the Little Joe II. Scott was on assignment at, of all places, the Los Alamos labs. Tom is now negotiating to copy the approximately 65 blueprints of the vehicle and launcher still retained by Layne. If we get any data, we'll let you know.

**Sweet Smelling Soviets** - In an effort to defray some costs, the Soviet Union's latest Soyuz flight to reman the Mir Space Station took an unusual twist. The Soviet's sold advertising space on the booster. An Italian insurance company and "New Dawn" perfume were some of the products that had ads painted on an orange section of the SL-4 booster.

**NIRA Quote of the Month** - Matt Steele in a Compuserve message: "Trying to figure out the NAR insurance is like playing with a Rubick's cube; any way you twist it, it looks funny, and you'll go crazy if you want to make every piece fit together just so."

Red Baron XI  
(con't. from Page 1)

My B ELD model got run over by a car! The only causality was the egg, as the rocket came through unscathed. Steve Lubecki managed to splat his EL onto his OWN car. Robert's EL flight heeded our impassioned pleas for a grass landing, and touched down on the one and only bit of turf in sight. A rocket with ears!

Fred Williams was almost unable to return his beautiful RG flight due to falling darkness. I broke my RG trying to install an oversized B4-2, and didn't fly the event. Robert didn't fare much better as his RG had a severe stalling problem and was re-kitted on impact with the pavement.

B SR Duration was Robert's big event. He fielded a just under the maximum length design called the "Long Walk". It's aptly named as it did indeed require quite a hike for recovery. This model performed very well, even under less than perfect conditions. We can't wait to see what it'll do in good air. Look for Leading Edge plans soon. I didn't get a chance to fly my SR due to dusk falling.

C HD was hotly contested. Robert used the Rotaroc 7 design to win. Fred Williams was flying the NCR Rotaroc-7 kit. He and Steve Lubecki took the event right to the wire. The plans built models seemed to perform better than the NCR kit versions, even though they appeared to be heavier and boost lower. Remember that pond? That's where my Rotaroc ended up. While it was a good flight, I was unable to make a second due to the soggy condition. I did learn that Rotarocs float nicely.

In conclusion, I'd like to thank CD Larry Rice, CSAR and MIVARS for their hospitality.

We had a great time, and look forward to returning for Red Baron XII next spring.

**RESULTS**

*Random Duration*

- 1 - Larry Davis, 9.8%
- 2 - Steve Lubecki, 13.4%
- 3 - Fred Williams, 27.6%

*A Multi-Round SD*

- 1 - Fred Williams, 4:40
- 2 - Robert McBroom, 2:35
- 3 - Larry Davis, 1:48

*B Eggloft Duration*

- 1 - Robert McBroom, :47
- 2 - Fred Williams, :30
- 3 - Larry Rice, :08

*B Rocket Glider*

- 1 - Fred Williams, 1:34
- 2 - Larry Rice, :34
- 3 - Robert McBroom, :17

*B SR Duration*

- 1 - Robert McBroom, 949 pts.
- 2 - Fred Williams, 896 pts.
- 3 - Larry Rice, 792 pts.

*C Helicopter*

- 1 - Robert McBroom, 3:16
- 2 - Fred Williams, 2:30
- 3 - Steve Lubecki, 2:28

*Standings*

- 1 - MIVARS, 810 pts.
- 2 - NIRA, 774 pts.
- 3 - CSAR, 500 pts.

Kitchen Scale  
(con't. from Page 1)

Bobby McBroom went the conservative route with his model. His design was essentially a three fin sport model with the nose cone replaced by a smiling plastic corn on the cob. Bobby's strategy to go for the flight points did the trick, and he squeaked past Don's flight to win the event.

Participation was lighter among the adults. Don Linder strove for and achieved realism with his plastic catsup bottle conversion. He took extra effort to paint the clear plastic interior of the bottle red, and to recover the model with a red streamer. A roar of appreciation accompanied the flight when the stream of red poured from the bottle.

Lawrence Bercini modeled a large carrot stabilized with its top, made from green plastic tassels. Although the leader after static judging, it was underpowered with a C6 motor. The low lob flight very nearly ended with planting the carrot.

Harland Pell modeled a full sized roll of paper towels. A catastrophic failure turned his rear ejection entry into a smoldering plastic lump. While not disqualified for the cat, Harland wasn't able to make another flight. Thus, Don won the event.

Remember to show up at the February 2, 1990 meeting to select our 1990 events!

## An Open Letter

Dear NIRA Members:

I recently contracted a severe case of foot in mouth disease. Those of you reading the March/July issue of SNOAR News know what I

mean. My letter to the editor in this issue contains statements which are bound to be misunderstood. Bear in mind this letter was written long before I had joined NIRA or met any NIRA members. My sole club contact when I wrote the letter was a copy of the Leading Edge which Lawrence sent along with Bobby's NARTREK membership package.

Allow me to quote the relevant passages. "I thought I'd probably join NIRA as they are the closest section to me. However, after comparing SNOAR News to the Leading Edge, I don't have quite the enthusiasm for this as I once did. Although I've never met Bundick or any other NIRA members, I can tell through the newsletters that they are not quite the kindred spirits I recognize in the pages of SNOAR News. Maybe starting a new section would be the answer. If I do join NIRA, maybe I could offer my services as a spy for SNOAR. (That means you have to eat this letter after reading it."

This letter was written at the time when I was just getting into HPR, and the "kindred spirits" line referred to SNOAR News' obvious HPR slant. It was not meant to malign NIRA or NIRA members in any way. The "spy for SNOAR" was a weak attempt at humor. I am now, of course, a NIRA member. Let me reassure everyone that I am NOT a SNOAR spy, and that I have the highest respect for the people I've met in NIRA. The letter reflected a narrow and mis-guided conception on my part as to what constitutes a "kindred spirit". I now feel that ANYONE who flies rockets, ANY sort of rocket, is a "kindred spirit". In fact I am now involved in NAR competition, and I consider this type of rocketry just as "advanced" as HPR, and just as enjoyable.

I also wrote "Bravo on the article concerning the Pink Book changes. I think you were right on target." I'd like to temper that

statement by saying after having a chance to fly under the new rules, I now think the changes were, for the most part, positive ones. There is no way to please EVERY contest flyer, and I'm sure the revision committee had the best interests of the NAR and competition flying at heart.

I think SNOAR News is a fine newsletter and I enjoy it very much. But there does seem to be an attitude of creating controversy simply for the sake of controversy. As another letter put it, the "Morton Downey Jr. Show" of model rocketry newsletters.

In closing, I'd like to apologize for any hurt feelings resulting from my letter to SNOAR News. I can only say that my attitudes and opinion have changed since writing it. I only hope that there are not many rocketeers who have the kind of narrow perspective which I exhibited in that letter.

Sincerely, Rich McBroom, A Loyal NIRA Member

## The "A-Squared"

by Rich and Robert McBroom

The A-Squared was designed for NARAM-31's B Altitude Event. Robert took first place with a 434 meter flight. The bird was designed to use the A3-0t booster, but at NARAM we discovered it was no longer certified. Consequently, the NARAM winning flight used the A10-0, A3-6t combination. It is possible to use an A3-2t in the booster, but DON'T try the A3-4t! We flew from a tower for the 434 meters, but the addition of a piston makes this bird capable of altitudes exceeding 500 meters.

Construction is straightforward, but does differ a bit from an Estes kit. Saturate the

aft ends of the tubes with a fast CyA glue. When dry, sand the ends of the tube to a sharp taper. Sand the airframe with 220 grit along the fin attachment lines. Using a fin jig, attach the fins with slow CyA and an accelerator. When dry, fillet with a SMALL amount of 5 minute epoxy.

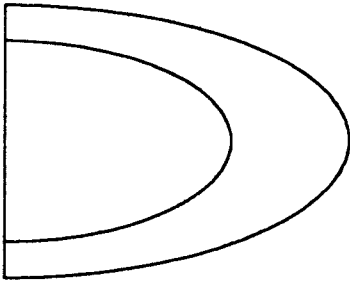
The upper stage fins' trailing edge is .19", 4.8 mm forward of the aft end of the tube. The booster fins are centered on the booster tube, i.e., .16" or 4mm from each end. Use an internal shock cord mount; we made ours from gauze. Make sure the mount is installed deep enough to allow the nose cone to fit. A small streamer works as the recovery system.

Fill the tube spiral with sanding sealer, let dry, then sand. Repeat as many times as are needed to fill the seam. Pay attention to the smoothness of the nose cone-body tube joint. You want the smoothest airflow possible here. Prime and paint the model with high temperature paint (automotive engine enamel works well). The upper stage should be black to aid tracking, and the booster should be orange to aid in locating it on the ground. After the paint has dried for several days, polish with successively finer grades of rubbing compound. Use a silicone based wax for the final coat. When flying, be sure to use LOTS of tracking powder!

### PARTS LIST

one 9.25" BT-5  
one 1.75" BT-5  
one Apogee PNG-13 nosecone  
one 13mm thrust ring  
one 12"x1" streamer  
18" Apogee KSL-50 Kevlar  
Apogee GBS-15 fin stock  
gauze

### *A Squared Fin Pattern*



### *RCHTA Show Planning*

The RCHTA hobby show, November 4-5, at the O'Hare Expo Center, will feature a static display booth manned by NIRA volunteers. Hours are 10-6 both days. Lawrence Bercini will run the Saturday morning set-up, and Bunny; the Sunday afternoon takedown. If you need last minute instructions, come to the November meeting or call Lawrence at 561-3098.

Assignments are: Saturday, 8:30-1:00 - Lawrence Bercini, Harland Pell and Ric Gaff; 1-6: Ric Gaff, Tom Howe, Dave Howe; Sunday, 9-1: Mike Junglass, Glen Thiel; 1-6: Bunny, Andy Apel, Tim Marcy.

To get into the show, park in the garage at nominal cost. Now head to the North Lobby for registration. Then it's back over to the South Lobby and D Hall where the static display is set up.

Please bring the following equipment to the November NIRA meeting, so that Lawrence can be ready for Saturday's set-up: hand truck, NIRA flyers, NAR applications, good looking display models of all sizes, shapes and kinds, a staple gun, duct tape, masking tape, NIRA banner, table cloth, trophies, folding chairs.

Remember, in addition to telling John Q.

Public about the most exciting hobby in the world, you'll get to see over 100 hobby manufacturers and distributors. MRC and Aerotech will have major product releases at the show.

### *NIRA BIRTHDAYS*

Henry Veldenz - November 13  
Dave Price - November 21  
Robert Kaige - November 21  
Larry Mika - November 22  
Brian Oster - November 23  
Larry London - December 10  
Mike Hausner - December 10  
Jason Heidkamp - December 17  
Tom Beach - December 18  
John Boren - December 31

### *ROCKET WORKSHOP FOR SALE*

Spacious, well lighted basement workshop. Close to hobby shops and Rt.53 for easy Ackerman Park access. 2BR, 1BA townhouse, excellent condition attached above. Listed at \$89,000. Contact Bob Kaplow, 312-934-1160, 1628 Waterford Lane, Palatine TWP, IL 60074.

### *MODEL ROCKET NOSTALGIA*

Yours for \$5 each, original copies of the following Model Rocketry Magazines: Jul 69, Nov 70, Apr/May 71, Jul 71, Sept 71, Jan/Feb 72. Also available, 3 copies of Vol. 1.1, "Space Modeler" magazine from Canada at \$3. Call Bunny, 293-9343, 1350 Lilac Lane, Carol Stream, IL 60188

### *ECONOMY HPR TUBING*

Heavy duty airframe tubing, 3.275" OD, .125" wall thickness, 36" lengths. Uniquely suited for high power use, this tubing is TOUGH! Yours for \$2 each, or six for \$10. Custom made centering rings, couplers and nosecones available from D.A.R.E. Rockets at reasonable prices. Contact Rich McBroom, 312-553-6553, 71 Charity Lane, Bristol, IL 60512

Set your VCRs to record NIRA on "WILD Chicago",  
Nov. 3, 10:30 PM on Channel 11!

\*\*\*\*NEWS FLASH!\*\*\*\*

At the November Meeting, Mary Roberts of Estes Industries will be on hand to discuss her job and possible future plans for Estes. If you've ever wanted to ask questions about Estes, here's your chance! Don't miss this meeting!

## ATTENTION, NIRA MEMBERS

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