

THE BUZZ!



Newsletter of the South Western (Ontario) Association of Rocket Modellers

SWARM

My Harvest Classic Prize

Charlotte Halinaty, NAR 94159

Events I competed in...

Last fall, I took part in The Harvest Classic 2016. The events I competed in were Set Duration, B Parachute Duration, Open Spot Landing, and Drag Race.

What I won...

I won the two out of three ?s in both rounds of the drag race. My prize was a LOC Legacy kit that was donated by John Brohm. I was very excited to build a bigger rocket and I loved the looks of it in the package. I wanted everything to look amazing so I decided to take my time and do the best job I could.

Building my Legacy...

I started by assembling my engine mount and gluing the bulkhead into the payload bay. I used an Estes plastic motor retainer. Then I put silkspan and dope on the fins; when they dried I sanded them and repeated until they were very smooth. Next I glued the fins to the body tube and added glue fillets. After that I filled the tube spirals, and finally I painted the rocket red with a black nose cone and three black stripes.

Flying my Legacy...

The first time I flew my rocket, the flight was very successful. I launched it on an Estes F15-4. The



John's Astron Farside-X at ECRM.
See "Finishing Foibles" on p.2.

p.4

July Launch Report

Because some of our members have ongoing Saturday commitments, this month's launch was held on Sunday, July 22. The temperature ranged from 20-25°C and there was a light breeze. In attendance were Chris, Larry, and Mike.

The first rocket up was Chris' Flying Colors on a B6-4 to test the wind. Chris then launched his Alpha/Tercel boost glider three times to try to get another 30 s flight, as Ron had not yet signed his NARTREK Silver paperwork. Unfortunately, a glider/shock cord tangle, a timing malfunction, and a lost booster dashed any hope of a good flight.

Next were two rockets from Mike Gallerno—a Quest Nike-K on an A8-3 and his "Junk

p.7

In this issue...

- Finishing Foibles (John Brohm, NAR 78048)
- Upcoming Model Rocketry Events
- Competition Conversation: New NAR Competition Rules
- July Launch Photos
- Scale Projects: Patriot Missile
- The Big Ones: Space-X
- For Sale by Owner
- The Sum of Its Parts Puzzle
- Ask the Prez

Finishing Foibles

John Brohm, NAR 78048

While working on the Astron Farside-X for ECRM, I ran into a finishing problem on the sustainer airframe that took a little extra effort to resolve. The problem stemmed directly from a body tube seam that was too tight, combined with a modeler who chose to skip a few of his normal prep steps to save time. There's a lesson there, and it seems these lessons are always learned at the least propitious times.

I always fill both seams in a body tube – the very apparent seam that's created by the space between the outer glassine surface wrap, and the seam just underneath the glassine wrap that's created by the gap between the outer Kraft paper wrap. More often than not, it's the underlying seam that becomes visible over time in an otherwise well-finished model, as the air in that seam can swell with changes in humidity, or will flex due to ejection charge pressure. So I've had the habit for years now, even though it's twice the prep work, to fill that extra seam.

In the case of our ECRM model, the section of BT50 used for the sustainer had a very tight underlying seam, a hair wider than the thickness of an X-acto blade. I broke the glassine surface, and did my best to fill this narrow seam with Bondo, as I usually would. The step skipped here is, before filling with Bondo, that seam should be zapped with thin CA. It stabilizes the paper underneath. I thought that with the thing so tight, it wouldn't matter. Well, it did.

I always shoot two coats of primer before I begin the wet sanding regimen. You need a good base for starters, and two coats usually ensures that the model is sufficiently waterproof for wet sanding. Well my little seam started to show while wet sanding: what was happening was that moisture was seeping into that seam and swelling the joint. It would disappear on its own after it dried out, but would briefly reappear with each successive wet sand. We can't have that – there's no amount of paint that can stabilize such a joint. Here's the culprit, exposed:

To fix the problem, we first zap the seam with CA (if only this had been done in the first place). Sand smooth, and then re-prime:



Now we're waterproof. Next, the Secret Sauce – Squadron White Putty:



Wet Sand:



Re-prime and wet sand:



Nice, smooth, and invisible, as it's supposed to be. Now you might say that that the whole problem could have been avoided in the first place by not breaking that very narrow seam. Not true. Many years ago I built a Custom Model's Venture, a nice little BT-50 sport model, and a favorite flyer of mine. It too had a very tight underlying seam, but in those days I only filled the surface seam. After a number of flights, that underlying seam started to reveal itself from ejection gas pressure. That's when I realized that second seam needed to be filled.

A few words about Squadron White Putty:

I always use Bondo to fill the native seams before Priming. As you know, it's easy to work with. But being solvent-based, Bondo will shrink. So after priming, the seams will still be visible. One could re-fill with Bondo, but I find it too granular for wet sanding. So I switch to White Putty at this stage – it's very fine grained, and feathers well with wet sanding. Here's a photo of the Farside-X payload

section after applying Squadron White Putty, and then with some wet sanding:



All those white spots are places that had been previously filled with Bondo and re-primed. To get a perfectly smooth finish, one really does need to use a fine grained filler for the final touch up, and wet sanding is a must. I should mention that I use #400 grit Wet/Dry sandpaper for wet sanding; #320 is too aggressive, and leaves visible scratches. Here's the same section, finished:



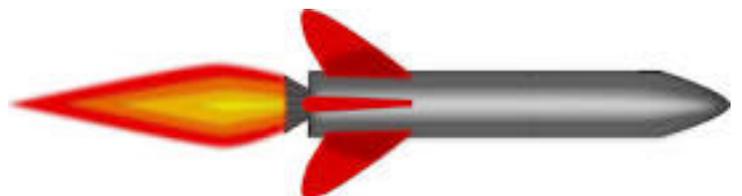
That sponge/foam cradle, by the way, is something that I found at Harry's. It's made by Bowser, and is intended for Model Railroaders that need a cushioned cradle to work on their locomotives and rail cars. It's been indispensable to me while working on finished assemblies, or where you have something round (like a model rocket) and you want to use two hands. Doesn't leave marks like a balsa cradle can.

Upcoming Model Rocketry Events

September 9, 2017: The Ghost
of Liberty Regional Meet
(MTMA)

September 2-3, 2017:
RAMTEC-20 (SPAAR)

October 21-22, 2017: Carl
McLawn Memorial Flyoff 5
(PSC)



July Launch Photos



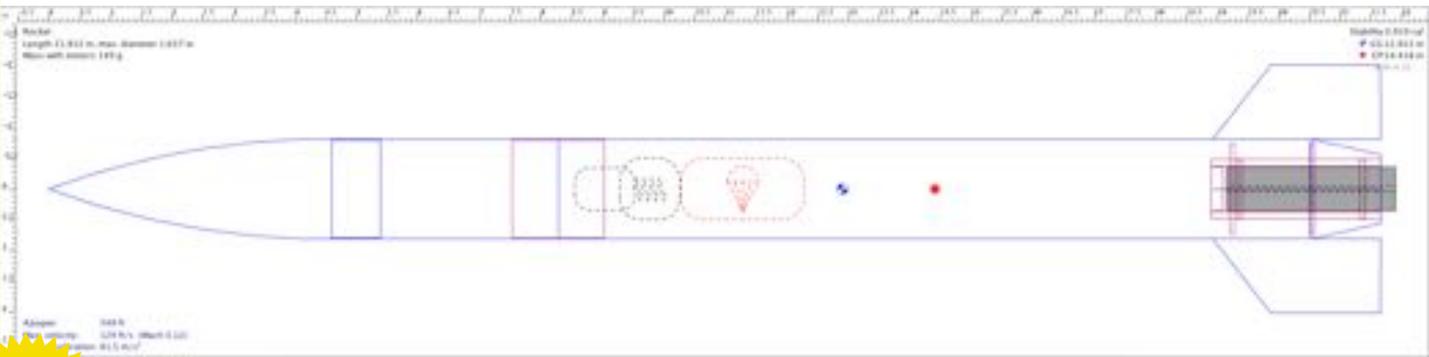
Scale Projects: M104 Patriot Missile

Chris Halinaty, NAR 85414

This is the data that I used to complete the scale model requirement for my NARTREK Silver Level. I chose to use 18 mm C engine power but still had to include a 24 mm tube to keep the aft tail cone diameter to scale. Leaving out the 18 mm engine tube and using 24 mm engines is certainly an option, should you wish. This option, however, would need to exclude the engine hook, as well.

M104 Patriot Scale Model			
Dimension	Actual (inches)	Scale (inches)	Factor
Overall Length	210	21.6625	9.7
Nosecone Length	44	4.6 (BNC-60K)	9.6
Payload Section Length	36	3.6875	9.8
Main Body Length	119	12.25	9.7
Tailcone Length	11	1.125	9.8
Fin Length	28	2.8125	10.0
Angled Fin Length	16	1.5625	10.2
Straight Fin Length	12	1.375	8.7
Fin Width	10	1.25	8.0
Body Diameter	16	1.625 (BT-60)	9.8
Tailcone Diameter	11	1.125	9.8

- Parts List
- Semroc BNC-60K
 - BT-60 (18")
 - Semroc Noseblock-60
 - 3/32" Balsa Fin Stock
 - 110 Card Stock
 - Launch Lugs
 - BT-20 Engine Tube
 - BT-50 Engine Tube
 - Engine Hook
 - Shock Cord
 - Screw Eye
 - 18" Parachute



From p.1

...My Harvest Classic Prize

altimeter didn't work so I decided to try it again. The second time I used my dad's reloadable F31-5 engine. He helped me drill the delay down to 5 seconds. That time the altimeter worked great and my rocket got 241 metres.

Looking forward to Harvest Classic...

I am really looking forward to this year's Harvest Classic because I love competing in all the different



events. This year I am planning on trying some events I haven't competed in, such as eggloft altitude and boost glider duration.

Last Month's Puzzle Answers

1. MegaDerRedMax
2. Eggscaiber
3. Hyperbat
4. Quinstar
5. MiniFatBoy
6. StarshipNova
7. Alpha
8. BigBertha
9. Mosquito
10. TandemX
11. GalaxyGold
12. AirWalker
13. Jetliner
14. Blurzz
15. Mammoth
16. LittleJoell
17. Lynx
18. Generic
19. HiFlier

The Big Ones: Space-X

According to the company website, "Space-X designs, manufactures, and launches advanced rockets and spacecraft. The company was founded in 2002 to revolutionize space technology, with the ultimate goal of enabling people to live on other planets." They also make some pretty cool swag. Here are some great items for the rocketry and space enthusiast:

For the builder...



For supporting the cause...



When you're feeling retro...



For the collector...



...Launch Report

From p.1

Rocket" made from spare parts. This one flew great on a D12-0/C6-5 combination but the large sustainer got lost in the corn.

Chris then put up his Sigma Trident 13 on three A10-3T's, which leaped off the pad and recovered perfectly. His Red Rider with a booster was next on a D12-0 and B6-4. It flew great and both booster and sustainer were recovered.

The last flight of the day went to Mike and his new Estes Firebolt. This great looking E2X rocket launched on an E9-6. It boosted straight and flew quite high. The one issue was that the nose cone separated from the payload section, but it was eventually recovered.

Not many flights went up but it was still a great day of flying!

**FOR SALE
BY OWNER**
Rocket stuff

This space is like a yard sale for rocket stuff. See something you like? Contact the seller by visiting www.swarmnar.weebly.com/members.html. Have a rocketry-related item you no longer have any use for? Let us know what you've got and how much you want to sell it for by e-mailing chris.halinaty@gmail.com.

Space Shots Card Set Series 1	\$35	Larry Broadbent
Space Shots Boxed Card Set Series 2	\$25	Larry Broadbent
Space Shots Boxed Card Set Series 3	\$25	Larry Broadbent
Moon to Mars Boxed Card Set	\$25	Larry Broadbent
Moon to Mars Shrink Wrapped Boxed Card Set	\$30	Larry Broadbent
Series 2 Space Shots (12 cards in each pack)	\$3/pack or \$10/4	Larry Broadbent
Series 3 Space Shots (8 cards in each pack)	\$3/pack or \$10/4	Larry Broadbent
MPC Lunar Patrol Shrink Wrapped Kit	\$20	Larry Broadbent
MPC Lunar Patrol Kit	\$40	Larry Broadbent
Estes Broadsword Kit		Larry Broadbent
Semroc Micron	\$8	Chris Halinaty
Quest Lil' Grunt	\$30	Grace Halinaty

Competition Conversation

New NAR Rules in Effect

NARAM-59 marks the last event that used the “pink book” of rules governing contest flying for the National Association of Rocketry. Now in effect is the new U.S. Model Rocket Sporting Code 2017. The changes are not subtle. Here is an overview of some of the major differences:

Competition Divisions

A	Individuals and teams ages 7-14
B	Individuals and teams ages 15-22
C	Individuals ages 23 and older
D	Teams ages 23 and older

This allows for younger competitors to work together as a team with other rocketeers of their own ages.

National Rocketry Competition (NRC)

The Contest Board will choose 4 NRC events for the year while the NARAM Contest Director will choose 2. NRC events may be as follows:

- ¼ A to A Parachute Duration
- ¼ A to A Streamer Duration
- ¼ A to A Helicopter Duration
- ¼ A to A Boost Glider Duration
- B to C Egg Lofting Duration
- ½ A to B Altitude (Altimeter)
- A to B Payload Altitude (Altimeter)
- B to C Egg Lofting Altitude (Altimeter)

The 6 NRC events chosen for a contest year may be flown at sanctioned competitions of two or more NAR members. Results in each NRC event will be tracked by the NAR on their website. The top 10 (or 10%) of competitors in each event will be recognized for their performance.

Event Specialist Award (ESA)

The top 10 (or 10%) of competitors in each NRC event will be eligible to compete for an ESA at NARAM. There is no limit on the number of ESA's for which a competitor may qualify.

National Championship

Competitors who post qualified flights in all six NRC events may be able to compete for a National Championship at NARAM. A combined rank for the sum of all six events is created. The top 10 (or 10%) of these competitors are eligible for the National Championship at NARAM.

NARAM

Results at NARAM will be posted for:

- Events
- Event Specialist Awards
- Meet Champions
- National Champions

Anyone may register to fly at NARAM and win an event. Participation in NRC throughout the year is not required.



Saucer S.W.A.R.M. II Sputniks

Sunday, September 17, 2017

Jack Farm, 6437 Fifth Line East

Celebrate the 60th anniversary of the Sputnik launch by building a Sputnik model and competing in a Sputnik Spot Landing competition and craftsmanship competition. Prizes will be awarded!

Also that day:

Fly in the Airdrie Space Science Club Challenge to compete against Canada's other two NAR sections.

Events:

- ½ A Parachute Duration
- ½ A Boost Glider Duration
- A Streamer Duration

The other NRC events may also be flown that day:
A Helicopter Duration, A Payload Altitude, C Eggloft Altitude

