

MASA PLANET

The Official Newsletter of the
Minnesota Amateur Spacemodeler Association

Established January 1998

2006 and 2007 NAR Medium Section of the Year

Host of NARCON 2007 and NARCON 2008

2008 and 2009 LAC Newsletter Award Recipient

January - February 2010
Volume 13, Issue 1

Houston, do we have a problem?



NAR Section 576

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New MASA Officers Elected to Serve in 2010

Elections Finalized at January Meeting



Congratulations to Carol Marple, Neal Higgins and Jason Colt for being elected as MASA's 2010 Club Officers. Carol has been MASA's Vice President for the past 2 years, and she now takes over as President. Neal is MASA's new Vice President. Jason is the new club Secretary/Treasurer.

Nominations were made last last fall, and the elections were finalized at the January Club Meeting, held on January 7th.

On behalf of the entire MASA membership, we would like to extend a very warm welcome to the new officers as they shape the future of the club.

Also on behalf of the entire MASA membership, thanks go to the outgoing officers for their past dedication to club leadership: Alan Estenson - past President, Carol Marple - past Vice President, and Rick Vatsaas - past Secretary/Treasurer.

The new officers can be reached at the following email addresses....

Carol: cjmarple@peoplepc.com

Neal: nthiggins@gmail.com

Jason: artimus772000@yahoo.com

ROD WHIP

I meant that
your **ROCKET** was
looking a little
tail heavy...



© 2009 Jeff Taylor



Scratch Build for Winter Flying Snowflake Rocket

By Ken Jarosch

The Snowflake Rocket is a fun rocket to build and fly. It is cheap and easy to build, and only has 6 parts to it. It turns out to be a very stable flyer even in the winds that gave my other odd-rocs trouble. The Snowflake is probably the oddest of my odd-rocs.

PARTS LIST:

- One 12" Smooth-Foam Snowflake form (Michaels retail at \$3.99) I used a 50% off coupon for \$1.99

Editor's Note: These are now on clearance so act fast!

- One 18mm motor tube 2-3/4" long
- One 18mm motor block
- Two 24mm motor blocks
- One 3/16" launch lug 2" long

TOOLS NEEDED:

White Glue and 3/16" Rat Tail file

CONSTRUCTION:

Construction consists of the foam body and a secure motor mount centered and perpendicular to the foam snowflake. I got the exact center by drawing 3 intersecting lines across the main body of the flake from valley point to opposite valley point between the branches. I marked 2 points (from the center point) on each of the 3 lines for the motor tube width. The motor tube was used to draw a circle using these points. This was done to both sides of the flake. The 3/16" Rat Tail file made the opening for the motor tube. I worked to get a good circle with straight walls. When I was satisfied, I used the 3/16" file to cut a space in one of the branches for the launch lug to a depth of the lug plus the thickness of the 24mm motor blocks. Dry test fits were done frequently. When all the filing was complete, I laminated glue on the insides of the filed surfaces.

In one end of the motor tube I placed a good bead of glue and pushed the 18mm motor block flush with the end of the tube. I used a spent motor casing to smooth out the glue inside the motor tube/motor block joint by rotating the casing inside the tube. I sanded one 24mm motor block and glued it flush with the opposite end on the motor tube. The partial motor tube was test-fitted in the foam flake, and adjustments with a file were made as needed. I marked the test fit motor tube where it came out the flake top. I removed the tube and wiped glue inside the foam flake and the marked area of the motor tube. I re-inserted the glued motor tube and held it in place. The

second 24mm motor block was pushed over the extending motor tube. Glue was placed over the flake and motor tube. I then pushed the motor block down tight against the flake forcing the tube into a perpendicular centered position.

The launch lug was test-fitted again and filing was needed. I marked the lug in the position where the rear end matched an installed motor. The inside of the foam and the marked area on the lug were wiped with glue. The lug was positioned in place.

Glue was placed over the motor blocks with the tube and flake joints. A layer of glue was wiped over the main body of the flake out to the branch openings. Also a bead of glue was placed between the branches in the valleys for strength. The finished weight is only 17 grams.



STABILITY TESTS:

The original balance tests were done with two pins stuck into the ends of opposite branches at the midpoint of the flake thickness. Of course it balanced vertically on ends to locate the center of pressure.

With the assembled rocket I found this point only moved forward about half the thickness of the pins. Inserting a spent motor casing moved this point forward less than 1/32". A new motor would move the center of gravity balance point forward about 1/16" from the flake's center of pressure.

Drop tests from my deck revealed that the Snowflake, with a spent motor inserted, would fall flat from either side if started from that position. However, if dropped from the side position the rocket would right itself within 5 feet before landing.

FLIGHT TESTS:

On Nov. 21, 2009 (at the last MASA launch of the year), I tested the Snowflake Rocket on a C6-3 motor. It flew to about 200 feet and arced over at burn-out. The ejection charge went off about 1/4 of the way down. There was a slight rocking of the Snowflake on the ascent and descent, which was probably due to the air flow over the flat surface. A complete success. The rocket should perform well with 18mm AP motors such as SU D10-0W or RMS D13-0W. flake body. The two 24mm motor blocks lock the motor tube tight and perpendicular with the flake body.

Snowflake Continued

Note: The Motor Mount and Launch Lug have not yet been painted white in these pictures to show the detail better.

To watch a video clip of the Snowflake Rocket launch, visit:
http://www.youtube.com/watch?v=uu8u0FND_jU

Ken Jarosch
NAR 56442 SR
TRA 10290
MASA 148



Snowflake from front view. Shows the motor tube, 18mm motor block and 24mm motor block holding motor mount tight against foam flake.

Editor's Note: Watch for a "Ken Jarosch Snowflake Rocket" group build at an upcoming MASA meeting.

Snowflake from rear view. Shows rear 24mm motor block flush with end of the motor tube and tight against the flake body. The two 24mm motor blocks lock the motor tube tight and perpendicular with the flake body.



This pre-launch shot gives a better dimension to the Snowflake. Taken just before launch which can be viewed on the Video Link.





Last Club Event of the Year: MASA's Holiday Party

Text by Alan Estenson

Photos by Jeff Taylor and Alan Estenson

On Saturday evening, December 12, around 40 MASA-ites gathered at the Chaska Community Center in the Sun Room for the annual club holiday party. There were all sorts of potluck goodies to eat and holiday treats to enjoy. Plus, rockets and other mementos to look at. The party started around 6:30 pm and ended around 10pm.

Thanks to Carol Marple for organizing the party, and to Lyle Merdan for arranging the use of the room! Thanks to everyone who attended!

Thanks to Todd Carpenter for bringing the liquid nitrogen and providing oodles of science-filled fun for everyone!

Thanks to Carol Marple and Jeff Taylor for the MASA holiday greeting cards. Party attendees signed these cards to be sent to various friends of MASA.

The annual MASA wacky gift exchange game was once again a popular activity with more than 30 people participating.



Endless Amounts of Pot-Luck Food

Jeff Taylor Photo



Todd Carpenter Chills Out with Liquid Nitrogen

Jeff Taylor Photo



Jeff Taylor Photo

Ethan Erpelding and His Dad Mike



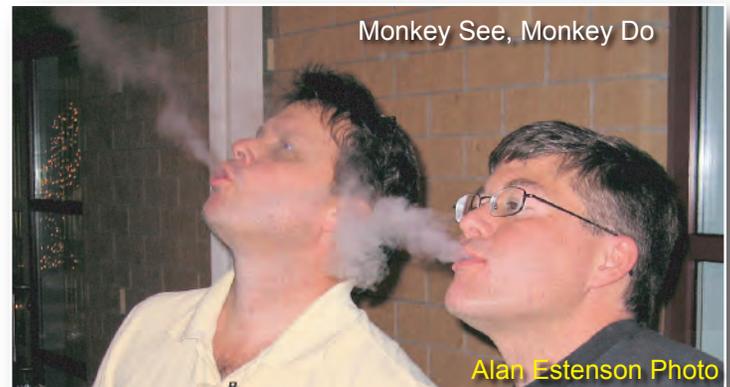
Jeff Taylor Photo

Rick Vatsaas Lets Off a Little Steam After Eating a Graham Cracker Frozen in Liquid Nitrogen



Jeff Taylor Photo

MASA Invades the Chaska Community Center



Monkey See, Monkey Do

Alan Estenson Photo



More Pictures on the Next Page...

More MASA Holiday Party Photos



By Alan Estenson

MASA Holiday Party Prize Winners

By Alan Estenson

The following free prizes were handed out to the following recipients at the 2009 MASA Holiday Party:

Door Prizes...

The following prizes were donated by Hub Hobby Center of Little Canada:

Estes Screaming Mimi Kit - Levi Anderson
Estes Fat Boy Kit - Buzz McDermott
Estes Canadian Arrow Kit - Dwayne Shmel
Estes Rock-It Kit - David Schaffhausen
Estes Rubicon Kit - Renee Gibbens
Balsa nose cones and Estes Viking Kit - Susan Shmel
Quest C6-5 Motors - Hannah Gibbens
Quest Motor Pack - Don Boe

The following prizes were donated by anonymous rocketeers:

Sunward Cluster Motor Mount Kit - Neal Higgins
Quest Flash Kit - Caleb Boe
Quest Sprint Kit - Austin Whitaker
Estes Alpha Kit - Jeff Taylor
Quest HL-20 Kit - Bob Moyle
Dynastar Nylon Parachute - Alyssa Taylor
"Journey to the Moon" DVD - Mark Thell
Estes Python 4 Kit - Phillip Gibbens
Speed Freak Kit - Aimee Whitaker
Custom Redliner Kit - Art Gibbens

The following prizes were donated by MASA:

Handbook of Model Rocketry - Alissa Hoyme

Prizes for RSO/LCO Volunteers

The names of everyone who had served RSO/LCO duty during 2009 were placed in a "hat", once for each shift.

The following prizes were donated by Hub Hobby Center and Alan Estenson:

F25 Motor - Lyle Merdan
F40 Reload Kit - David Whitaker
G76 Reload Kit - Jeff Taylor

**Thank You to
All of the Donors!**

- MASA's 11th Year
- 10 meetings plus the summer picnic and winter holiday party.
- 13 club launches in 2009: 1,052+ flights, 1,205+ engines burned, 33,991 N-s of total impulse ("O" motor equivalent!), roughly \$7k worth of engines used! The total number of MASA flights to date is over 10,000! This was the first year with more than 1,000 flights since 2002. We had 39 high power flights; that's the most ever in one year! We had several launches with near-perfect weather. David Whitaker flew the first J hybrid flight at a MASA launch
- MASA donated 36 rockets to NARAM 51 for the "Fly-It / Take-It". Thanks to all who built and donated rockets: Andy Heren, Mark Thell, Neal Higgins, Carol Marple, Ben Ericksen, Daniel Boe, Caleb Boe, Joshua Boe, Mike Erpelding, Jeff Taylor, Todd Carpenter, Ted Cochran, Alan Estenson, David Whitaker, Jim Myers, Buzz McDermott.
- The LAC trophy for best NAR section newsletter was awarded to the MASA Planet for the 2nd consecutive year! Thanks to all the newsletter contributors: Alan Estenson, Ken Jarosch, Jeff Taylor, Ted Cochran, Ray King, Art Gibbens, Scott Gleason, Carol Marple, Lyle Merdan, Glen Overby, Andy Heren, Neal Higgins, Todd Schweim, Mike Erpelding, Buzz McDermott, Rick Vatsaas, David Whitaker, Larry Schwartz
- Many, many outreach events.
- MASA staffed the NAR booth at the NSTA convention.
- We won the long-running court case against the BATFE!
- MASA held its first ever regional contest.
- Many MASA members trekked over to Wisconsin for NSL 2009.
- Several traveled to PA for NARAM 51.

Recognition for 2009 Service and Achievements:

- Thanks to Alan Estenson for his service as MASA President.
- Thanks to Carol Marple for her service as MASA Vice President and for organizing the FITi donations for NARAM.
- Thanks to Rick Vatsaas for his service as MASA Secretary/Treasurer.
- Thanks to Jeff Taylor for his service as editor of the (multiple award winning) MASA Planet newsletter.
- Thanks to Ted Cochran for his service as NAR Vice President.
- Thanks to Mike Erpelding for serving as director of MASA's first regional contest.
- Congratulations to those with successful Level 1 certification flights at MASA launches this year: Andy Juntunen, Scott Gleason, Kevin Anderson, Todd Carpenter.
- Thanks to all those who volunteered their time to serve RSO/LCO shifts this year: Ted Cochran, Mark Thell, Buzz McDermott, Dwayne Shmel, Lyle Merdan, Ken Jarosch, Jeff Taylor, Art Gibbens, Tim Barr, Neal Higgins, Rick Vatsaas, David Whitaker, Glen Overby
- Congratulations to MASA's FAI Internats crew: Caleb Boe, Ray King, Todd Schweim.



2009 MASSY Awards

Presented By Alan Estenson at the 2009 Holiday Party

2009 MASSY Awards:

Following MASA tradition, club president Alan Estenson presented a few special awards at the 2009 MASA Holiday Party.

"Scavenger Hunt Award", presented to Art Gibbens in recognition of his outstanding achievement in a "Successful cornfield expedition - Bagging three rockets, a fin, and a duck."

"Thermal Hunter Award", presented to Caleb Boe: in recognition of his outstanding achievements in "Achieving a new national record in 'A' streamer duration, B division... twice!"

"Angler Award", presented to Glen Overby in recognition of his outstanding achievements in "Demonstrating exemplary rocket fishing abilities that went above and beyond the call of duty."

"Passion Award", presented to Larry Schwartz in recognition of his outstanding achievements in "Hating Corn. [I mean it. This guy really, really, really hates corn! Really.]"

2009 Prang Awards:

There were a number of notable prangs this year.

Prangs Worth a Mention:

3 foot ejection crunch – Ted Cochran's Super Sprite on an E15

2 foot ejection crunch – Mark Thell's SPEV on a B6-4

Rod kick, cruise missile, lawn dart, then eject – Ken Hoyme's Big Daddy on a D12

Lawn "dart" – Dwayne Shmel's Death Star on a D13 (twice!)

POINK – Dwayne Shmel's Dude on an E11 (Popped On Impact, No Kidding)

CATO, separation, early eject, QT meltdown – David Gensler's Matrix on an H180

Prangs Worth a Dishonorable Mention:

"It was the best of times. It was the worst of times." – The crunching of Art Gibbens' 2-stage Saturn V at the club picnic.

Big Ballistic Lawn Dart – Ken Jarosch's B4R on an H238

Rooftop No-Eject Crunch – Bob Moyle's Black Mustang on a F22

"Anyone bring a garbage bag?", Impressive no eject core sample – Glen Overby's Aerobee 150 on an I146.

Honorary Prang Award:

"The Death of Dead Cow" – Hope Christian Academy's TARC rocket CATO at the March launch.

And finally (drum roll please).....

2009 Prang of the Year Award:

Jim Myers' "Flying Jenny Upscale" on a D12-3
Nomination - "This rocket did an arcing, low-altitude pass from west to east along the entire flightline, plunged right into the middle of Overby Pond, and THEN ejected its motor pod! It was literally fished out by Glen using a long pole."

"Jim Meyers launched a nice Jenny
And power it had more than plenty
It flew very straight
At a height of oh-eight
Hit the weeds....survivors? Weren't any.

The pilot did try to correct
But ultimately had to eject
Flew into the air
But he had no prayer
As Jim's little Jenny got wrecked

Did I mention that very low pass
Straight down the flight line, clipping grass?
It dove into Glen's pond
Not two inches beyond
Now Jim has no Jenny, alas."
- Ted Cochran



**Lyle Merdan Proudly Models
With the MASA Traveling
Prang-of-the-Year Trophy**



2010 Meeting Schedule

Subject to Change

Check MASA Website or Yahoo Group for updates

MASA February Meeting

Thursday, February 4 - 7:00 pm to 9:00 pm

Location: Science Museum of Minnesota, St. Paul

MASA March Meeting

Thursday, March 4 - 7:00 pm to 9:00 pm

Location: Science Museum of Minnesota, St. Paul

MORE TO COME!

FLY SAFE OR STAY HOME

2010 Launch Windows

Subject to Change

Check MASA Website or Yahoo Group for updates

All MASA Launches are "Misfire Alley"
(bring your own launch pad and controller)

MASA January Launch

Saturday, January 23 - 10:00 am to 1:00 pm

Location: White Bear Lake

MASA February Launch

Saturday, February 27 - 10:00 am to 1:00 pm

Location: White Bear Lake

MASA March Launch

Saturday, March 27 - 10:00 am to 1:00 pm

Location: White Bear Lake

MORE TO COME!

Contributors to this issue of the MASA Planet.... *Thank You!*

➤ **Todd Carpenter** ➤ **Carol Marple**

➤ **Alan Estenson** ➤ **Jeff Taylor**

➤ **Ken Jarosch**

To contribute pictures, stories, build reviews, or just about anything,
email to jeff.taylor@mn-rocketry.net



**After Two Consecutive CATO's, Alan's FatBoy
(carrying a miniature video camera)
Successfully Launches**

MASA Directory

Established January 1998

Founding President: Russ Durkee

2010 President

Carol Marple - cjmarple@peoplepc.com

2010 Vice President

Neal Higgins - nthiggins@gmail.com

2010 Secretary/Treasurer

Jason Colt - artimus772000@yahoo.com

MASA Planet Newsletter Editor

Jeff Taylor - jeff.taylor@mn-rocketry.net

MASA Planet On-Line

www.masa-rocketry.org/planetonline.htm

Club Website

www.masa-rocketry.org

Webmaster

Alan Estenson - estenson@mn-rocketry.net

Club Yahoo Group

<http://groups.yahoo.com/group/masarocketry/>



Incredible Opportunity for NAR Members and Non-NAR Members

By Carol Marple



The National Association of Rocketry recently announced details for its first-ever membership drive, "52 by 52".

Between January 1, 2010 and the first day of NARAM-52 (July 31) the NAR is taking some extraordinary new steps to encourage new members to join. We ask that every current NAR member contribute to this campaign by actively recruiting rocketeers of all ages and interests to join the NAR. Our goal is to reach 5200 members by NARAM 52, which is an increase of approximately 700 members.



There are special benefits and incentives being offered to new members and current members, including:

- New members will get a free rocket kit from Semroc, a free rocket kit from Quest, and a free hat from Aerotech. These freebies will be mailed directly from the vendors to new members who join during the drive. This is over \$30 of rocketry products, free! (PLEASE thank these NAR-supporting companies!)
- Manufacturers will put ads for the NAR on their websites, and will get discounts on future Sport Rocketry ads for each new member we get from these.
- Current NAR members will get a \$5 cash bonus for each new member they recruit during the membership drive (new member must include recruiting member's NAR number on their application).
- Sections will get a \$5 cash bonus for each unit of growth in total NAR member count on their section's roster compared to this count in 2009.

There are very few restrictions – the new member cannot have been a NAR member within the last 3 years; and the new member must include the recruiting member's name and NAR number on their application in order for the recruiting member to receive the \$5 cash bonus. Otherwise, a new member is counted as a new member.

If you're not already convinced, consider these examples:

- A senior membership (ages 21 and up) costs \$62 per year. You're going to receive over \$30 in free rocketry products for signing up, which is like getting half off your first year of membership.

MASA PLANET

- A junior membership (ages 15 and under) and leader membership (ages 16-20) each cost \$25 per year. The free rocketry products are worth more than the membership, which is like getting your first year of membership for free.
- A family membership makes this an even better deal. After one family member joins at full price, each additional family member who joins receives a \$12 discount on their membership (you only receive one magazine per family). A parent who signs up their child for a family membership will pay \$13 for the child's membership, plus the child gets all the freebies and the parent gets the \$5 recruiting award. This means your child can be a NAR member for just \$8 for their first year!

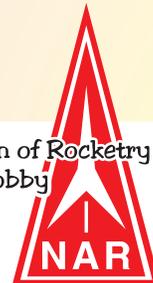
If you have any questions about "52 by 52", please feel free to contact me at: NARMembership@rocketmail.com.

Thanks for your support!

Carol
Chair, NAR Membership Committee

52 BY 52
5,200 Members by NARAM 52
MEMBERSHIP DRIVE

National Association of Rocketry
Building a Better Hobby
www.nar.org



2010 NAR National Events

Dates and Web Sites subject to change.



NARAM 52
Pueblo, CO

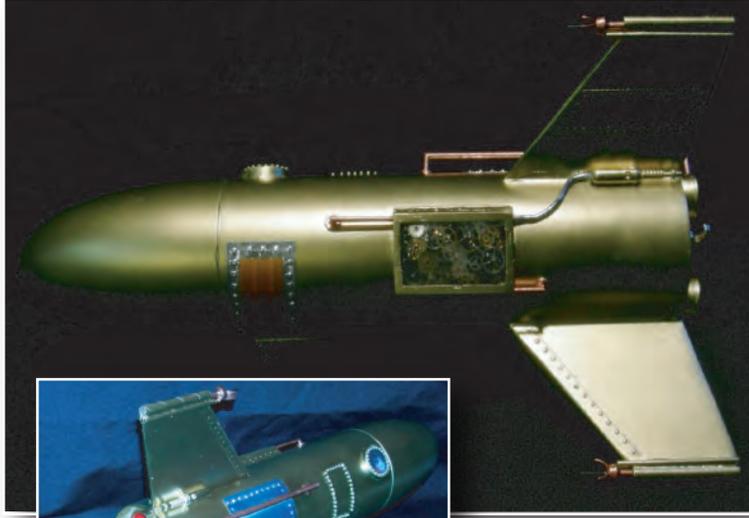
July 30 - August 6, 2010
www.peakcity.org

NSL 2010
Alamogordo, NM
May 29 - 31, 2010
www.nsl2010.com

NARCON 2010
Worcester, MA
March 13 - 14, 2010
www.narcon.org



Steam-punked Eye Candy Teaser **Steam Boy** Crafted by Todd Carpenter



Look for more on steam-punked rockets in a future issue of the MASA Planet

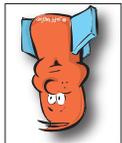


OTHER STEAMERS....



Jeff Taylor's Golden Scout (under construction)

Todd's Silver Comet and Rick Vatsaas's Scratchbuilt Fleet



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