

MASA PLANET

The Official Newsletter of the
Minnesota Amateur Spacemodeler Association
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2006 and 2007 NAR Medium Section of the Year
Host of NARCON 2007 and NARCON 2008
2008, 2009 and 2010 LAC Newsletter Award Recipient

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NAR Section 576



2010 MASA Holiday Party

Austin Whitaker
Unwraps a Gift

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Meet Your 2011 MASA Club Officers

The MASA club leadership team for 2011 has been assembled and is underway planning out activities and club direction for the year.

2011 Club President is **Carol Marple**, returning for a second year as President. Carol currently holds a Level 2 High Power Certification with the NAR. She can be reached via email at masarocketry@rocketmail.com.

2011 Club Vice-President is **Neal Higgins**, returning for a second year as Vice-President. Neal also currently holds a Level 2 High Power Certification with the NAR. He can be reached via email at nhiggins@gmail.com.

2011 Club Secretary/Treasurer is **Gerald Meux Jr.**, fairly new to MASA but an experienced Treasurer from previous rocketry clubs. Gerald currently holds a Level 3 High Power Certification with the NAR. He can be reached via email at kninja250r@yahoo.com.

Please support the leadership team as MASA starts out 2011, our 13th year!!



On Saturday evening, December 4, about 30 MASA members gathered at the Chaska Community Center in the "Community Room" for the annual club holiday party. There was plenty of food to eat and holiday treats to enjoy, plus a couple of rocket "beauty" contests, and rockets and other mementos to look at. The party started around 6:30 pm and ended around 9:30 pm.

Thanks to Lyle Merdan for arranging the use of the room, and to everyone who helped with planning, set up, and clean up! Thanks to everyone who attended!

Thanks to Todd Carpenter for again bringing the liquid nitrogen and keeping the crowd entertained! Everyone had a great time freezing marshmallows, graham crackers, flowers, and pennies

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

The annual MASA gift exchange game was once again a popular activity with nearly all the attendees participating.

Carol - MASA President



Chow Line - MASA Style

Mid Power Kit Review

Sirius Rocketry's Deimos

By Jeff Taylor

The Challenge....

I recently built my first Sirius Rocketry kit, a mid-power Interrogator, and was completely impressed by the unique design, quality of the kit, and all those decals. After that was completed, I was ready to tackle my next challenge... Sirius Rocketry's new **Deimos** kit.

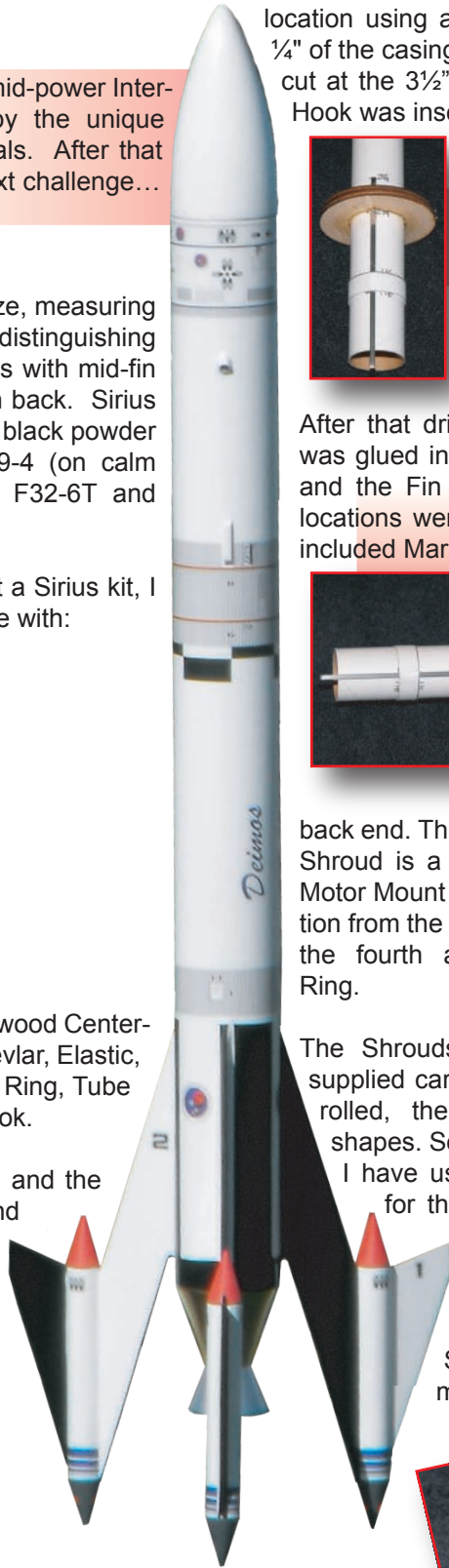
The Kit....

This skill level 2 rocket has an impressive size, measuring 33.1" tall and a body diameter of 2.245". Its distinguishing features are the large reverse-sweeping Fins with mid-fin Pods, as well as the large exhaust nozzle in back. Sirius recommends flights on the following array of black powder and composite motors: D12-3, D15-4, E9-4 (on calm days), E20-4W, E18-4W, F12-5J, F32-4T, F32-6T and F35-5W.

The kit is amazing, but if you have ever built a Sirius kit, I don't need to tell you that. It comes complete with:

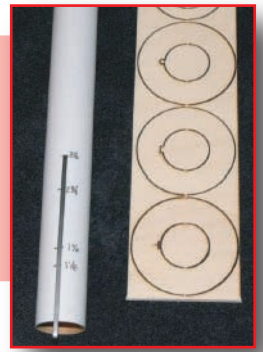
- 15.5" Main Body Tube
- 8.5" Upper Body Tube
- Tube Coupler
- Balsa Nose Cone
- 15" Motor Mount Tube
- 24" Parachute
- 4.5" BT20 Pod Tubes (3)
- 6 Balsa Pod Cones
- 1/8" Balsa Sheets (3)
- 2 Decal Sheets
- 2 Shroud Patterns for Engine Nozzle
- D to E Motor Spacer
- And a host of Miscellaneous parts like Plywood Centering Rings, 3/16" Launch Lug, Motor Hook, Kevlar, Elastic, Nose Cone Dowel Insert, Screw Eye, Thrust Ring, Tube Marking Guide and a 12 Page Instruction Book.

All of the materials in this kit are top notch, and the instruction book is full of easy to understand illustrations at each step, along with several building tips that can be applied to any build.



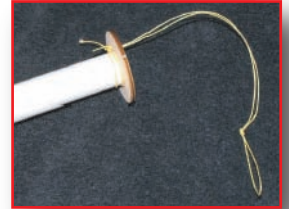
Body Tube and Motor Mount....

Starting with the 15½" long Motor Mount Tube, the back end of the Tube was marked in 4 places. The Thrust Ring was glued inside the Tube 3½" from the back by pushing it into location using a spent E casing until ¼" of the casing remained. A slot was cut at the 3½" mark and the Motor Hook was inserted into the slot.



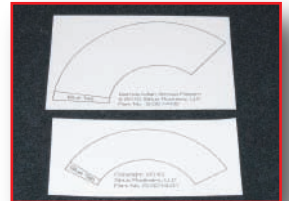
A couple of plywood Centering Rings were added, as well as a unique Motor Hook Retaining Strap to complete the back end of the Motor Tube. The forward end of the Motor Tube got a plywood Centering Ring and a loop of Kevlar Shock Cord glued to it.

After that dried, the Motor Tube was glued inside the Body Tube, and the Fin and Nozzle Gusset locations were marked using the included Marking Guide.



The Nozzle....

One of the cool features of the Deimos design is the Engine Nozzle on the back end. This is made with two paper shrouds. The larger Shroud is a transition from the main Body Tube to the Motor Mount Tube. The smaller Nozzle Shroud is a transition from the Motor Mount Tube to the fourth and final Centering Ring.



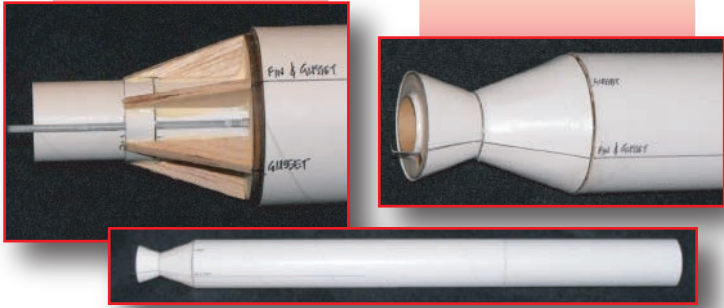
The Shrouds are cut from the supplied cardstock pattern, pre-rolled, then glued into cone shapes. So far during this build I have used yellow glue, but for these Shrouds I used Tacky Glue. It seems to dry faster on paper without wrinkling, so the Shroud assembly is much easier.



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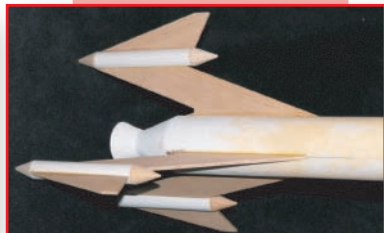
Deimos Continued

Six Nozzle Gusset pieces were removed from the laser-cut balsa sheet and glued in place over the protruding Motor Tube. After some light sanding for a better fit, the Nozzles were glued in place over the Gussets and remaining Motor Tube. To help hide the seams and joints on the Shrouds and for a cleaner look to the Nozzle, I added a little Elmer's Wood Filler that was slightly watered down then sanded smooth.



The Fins....

Each Fin is comprised of three parts: a Main Fin, a Fin Pod (each with 2 balsa Nose Cones), and a Fin Tip. I used my Standard Rockets Assembly Tool to align and attach the Main Fins to the Body Tube, then added some extra glue fillets for increased strength. The Pods get lines drawn along their length on opposite sides using another marking guide included in the kit. These lines help you align the Pods to the Main Fins, and the Fin Tips to the Pods. I didn't glue the Nose Cones into the Pods. Instead, I will use tight friction fits so they can be removed if necessary.



The Nose Cone....

A wood dowel was glued into the large Balsa Nose Cone, and an eye screw glued into the dowel. The outer section of the Nose Cone was soaked in CA to give it a little extra strength. The six Pod Cones also got a dose of CA, as well as the inside top portion of the Body Tube.



Finishing....

A coating of watered-down Wood Filler was used to fill in all the body spirals and the Nose Cone and Fin grains, as well as make some smooth fillets and touch up any imperfections.

After that dried, the entire rocket was once again sanded smooth before primer.



I used Rustoleum Painter's Touch Ultra Cover 2X Coverage Primer, and Gloss White and Gloss Black paints on this rocket. The primer sands very well after it is allowed to dry for a few days. Once all of the Primer was sanded smooth, I applied a few light coats of Gloss White. I let this cure for several days before I did some damp-sanding using some 400 grit dipped in water. Then a few more light coats of white. After a few more days of curing, I masked the rocket for the black roll pattern on the Fins. For the edges, I used Tamiya masking tape (yellow), and for the large areas I used Frog Tape (green).



Allowing a few days of curing between each color, I masked off the area to spray the Metallic Gold on the Nozzle and later the Metallic Silver on the Nozzle.



The Decals, Details and Finishing Touches....

There are two small Service Tunnel details made of balsa that get painted white and then glued to the Body Tube after the application of the decals. The three top Fin Pod Nose Cones were painted red-orange, and the three bottom Fin Pod Nose Cones were painted medium gray. The two sheets of colorful and detailed decals were added to the rocket using Micro Sol and Micro Set.



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Deimos Concluded

The Flight....

I was fortunate enough to get to fly this rocket twice at the October MASA Launch. Both flights were on Estes D12-3 motors, and both flew spectacularly. Even though this was the smallest motor recommended for the Deimos, there was no hint of it being underpowered. It took off slow and straight, did a little weather-cocking (there was a slight wind that day), and the ejection was about as perfectly-timed as you could ask for from a black powder motor.



Final Thoughts....

This design is eye-catching right off the bat, whether it's because of the size, the unique Fin design, the obvious roll pattern paint job, or the shiny monster nozzle – something catches your attention. Once you are drawn to it, the many other details start to jump out at you – mainly all those detailed decals.

As with all Sirius Rocketry elite series kits, this one is very well thought out and complete. It is rated as a skill level 2, so it is definitely not a beginner kit, but on the other hand it is not an extremely difficult kit to build. For me, the masking for the black roll pattern seemed to be the most demanding part, although I think there are other options, such as MonoKote or masking/painting smaller portions at a time. At first glance the kit looks somewhat intimidating, but the instruction manual makes a very straight forward process of the step-by-step assembly. Every step is clearly explained with an accompanying illustration. The decals on this kit add a lot to the character of the rocket. They are thin yet very robust, so there should be little worry of tearing any of them.

I am looking forward to the spring flying season so I can launch the Deimos with some more powerful motors like some E or F 24mm reloads.

All in all, I would highly recommend this kit to anyone who has a fair amount of modeling experience, patience, and is looking for an eye-catching and challenging build.

Order your Deimos from www.siriusrocketry.com



Jeff Taylor and his Deimos before the first flight.
Photo by Carol Marple

2010 MASSY Awards Presented at the MASA Holiday Party By Carol Marple

Each year at the MASA Holiday Party, MASSY Awards are presented to MASA members for various activities or accomplishments beyond the norm. Congratulations to the following recipients of the 2010 MASSY Awards:

"Pay it Forward Award"

Presented to **Mike Erpelding** and **Buzz McDermott**.

Mike single-handedly ran two major outreach events this year, including a launch at the Stearns County Fair and the 2-day Boy Scouts "Star Camp," which celebrated the 100th Anniversary of the Boy Scouts. For this event, Mike built and wired several new multi-rocket launch pads in order to handle the high number of flights. The Scouts built paper pyramid rockets and flew them on Quest B6-2's. Approximately 11,500 Scouts attended the event; of those approximately 700 Scouts built and flew rockets.

Buzz hosted a club build session, plus donated many rocket kits (and rockets) for the NARAM 52 Fly-it / Take-it. In addition, he also handled many outreach builds and launches, often times by himself and on short notice, including one outreach event for a scout group that was planned, coordinated, and done within 3 or 4 days.

"Frequent Flyer Award"

Presented to **Alan Estenson** for having the highest number of flights during 2010, in addition to also taking many shifts as LCO/RSO.

"Longest Distance Traveled to Fly Rockets Award"

Presented to **Caleb Boe**, **Todd Schweim**, and **Don Boe** for their trip to the WSMC in Serbia in August.

Time to Renew MASA Membership for 2011

All 2010 MASA memberships expired on December 31, 2010. All new and returning MASA members will need to complete a 2011 Registration Form and pay their 2011 dues. Dues for returning members and new members for 2011 are:

Individual Membership (18 years and older): **\$10.00**

Family Membership (up to 4 family members): **\$12.00**

Individual Junior Membership (17 and younger): **\$5.00**

Newsletter Option (paper copy mailed to your home): **\$6.00**

(or you can still access the newsletter online for free)

Register online, by mail, or in person at a launch or meeting. All registration details and forms are at: <http://www.masa-rocketry.org/joinmasa.htm>

If you have any registration questions, feel free to send an email to: masarocketry@rocketmail.com

MASA Year in Review

By Carol Marple

2010

MASA's 12th Year

10 meetings plus the summer picnic and winter holiday party. Thanks to all the meeting topic presenters! (Caleb Boe, Alan Estenson, Carol Marple, Buzz McDermott, Glen Overby, Dwayne Shmel, Todd Schweim, Jeff Taylor, and the many club members who participated in the "hardware and reload show-n-tell" at the October meeting).

15 club launches in 2010, including a 2-day regional contest: 910+ flights, 1,014+ engines burned, 29,962 N-s of total impulse, nearly \$6,000 worth of engines used! The total number of MASA flights to date is about 11,000!

We had 44 high power flights; that's the most ever in one year!

We had very few scheduled launches that had rocket-friendly weather; luckily, we were nearly always able to reschedule.

MASA donated 50 rockets to NARAM 52 for the "Fly-It / Take-It". Thanks to all who built and donated rockets: Kevin, Hunter, and Levi Anderson; Steve Brown; Todd Carpenter; Mike Erpelding; Alan Estenson; Art and Philip Gibbens; Andy Heren; Neal Higgins; Carol Marple; Buzz McDermott; Bob Moyle; Dwayne Shmel; Jeff Taylor; Mark Thell; David Whitaker.

The LAC trophy for best NAR section newsletter was awarded to the MASA Planet for the 3rd consecutive year! Thanks to all the newsletter contributors: Todd Carpenter, Jason Colt, Mike Erpelding, Alan Estenson, Art Gibbens, Neal Higgins, Ken Hoyme, Ken Jarosch, Ray King, Carol Marple, Tim Melody, Glen Overby, Todd Schweim, Alyssa Taylor, Jeff Taylor, and David Whitaker.

We had a large number of members successfully complete their L1 and L2 high power certifications. As a comparison, in the first 10 years of MASA, approximately 25 members completed their L1 or L2 HPR certification. In 2010 alone, we had 12 members complete their L1 and L2 certifications. Level 1 Certifications include: Steve Brown, Art Gibbens, Caleb Griswold, Ken Hoyme, Bob Moyle, and Dave Schaffhausen. Level 2 Certifications include: Caleb Boe, Todd Carpenter, David Gensler, Neal Higgins, Carol Marple, and Dwayne Shmel. Congratulations to all and special Congratulations to Caleb B., Carol and Dwayne for successfully completing their cert flights at NARAM 52.

We received two NAR Safety Grants, totaling approximately \$400. This money was used to purchase additional safety equipment including a "smokechaser," an additional set of speakers, and additional stakes and rope. Some money remains to purchase an updated first aid kit and an air horn.

We supported many outreach events, including long-standing events like Westwood and new events with some boy scout and girl scout troops.

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MASA held its second regional contest. Planning is already underway for our 3rd annual regional contest next summer.

At least a few MASA members attended NARCON 2010 on the East coast.

About 10 members traveled to Pueblo, CO for NARAM 52 (and some are already making plans for NARAM 53 in Cincinnati, OH).

Caleb Boe, Todd Schweim, and Don Boe traveled to Serbia to compete in the WSMC.



2010 Prang Awards

Honorable Mention Prangs:

- Ken Jarosch's "SpaceShipEarth" saucer was completely obliterated when a D5-4 motor CATO'ed.
- Lyle Merdan's "Wildman Jr" on a G46 had a motor failure, caught on fire, and didn't leave the pad.
- Ken Hoyme's Leading Edge Rocketry Alien, with 39 separately soldered and epoxied LEDs, on an E20-4W at the Solstice launch. Lawn darted due to really long ejection delay.
- Todd Carpenter's "Steam Boy" on a D24 had a late ejection and lawn darted.
- Mark Thell did loops with his "Colonial Viper" on a C6-3. The comments say "unstable, mistook Bob for a Cylon".
- David Gensler tried for his L2 cert with his Magnum on a J350. Unfortunately, he suffered a motor CATO. The motor tore loose, flew through the rocket, punched into the payload section, and propelled it into the air while the bottom half of the rocket remained on the pad.
- Tim Barr exceeded the speed of balsa when he shredded his SLS Laser-X on a G77.
- Luke Brown launched the big and colorful "Bunny Storm" on 3 D12's. The nose came off, but the chute never appeared and it core sampled.



Prang of the Year Award:

Ken Hoyme's Leading Edge "Rocketry Alien" on an E20-4W. Ken bought this kit shortly before the Solstice Launch, and spent many, many hours soldering and epoxying the 39 individual LEDs that come with this kit. It was an awesome rocket, and we were all excited to see it fly. Ken waited until right after sun down to launch it, to maximize LED visibility. Winds were pretty calm when the button was pressed. It wasn't completely stable off the rod, but it stabilized as it picked up speed. Unfortunately, it made a nice arc over the road and into the field across the street, where it crashed. The nose cone was firmly planted in the body tube, and many of the little parts were completely shattered. We're pretty sure the delay was longer than 4 seconds, and I'm sure it felt more like a 40-second delay to Ken.



For the Good of the Planet

Five-Year Planet Index 2006 thru 2010 - Volumes 9 thru 13 Compiled by Ted Cochran

Note: This index covers the major articles in Volumes 9 through 13 (2006-2010). The index to Volumes 1-5 is in Issue 5.5, the index to Volume 6 is in Issue 6.6, and the index to Volumes 7 & 8 is in Issue 9.1

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Spill Holes in Parachutes	12.1

Fun

Gum Camera On-Board Video	13.4
Low-Amperage Igniters for Small Motors	13.5 & 13.6
BP vs APCP Modroc Motors	13.3
2006 Certified Motor Table	9.1
NAR Junior High Power Certification	10.2

Vendors

FlisKits Turns Seven	12.5
Off We Go Rocketry	13.3
Sirius Rocketry Offers 10% Discount to MASA	13.6

Web Sites

Rocketry Forum	10.2
Rocketry Forum 2.0	12.2



MASA Welcomes the Following New Member:

➔ Joseph Wright

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2010 MASA Members

Registrations Received as of December 27

Cheryl Anderson	David Gensler	Bob Moyle
Hunter Anderson	Art Gibbens	Lance Murphy
Kevin Anderson	Hannah Gibbens	Mike Murphy
Levi Anderson	Philip Gibbens	Scott Murphy
Timothy Barr	Renee Gibbens	Eric Myers
Corey Bedford	Scott Gleason	Heather Myers
Glenn Bedford	Caleb Griswold	Jim Myers
Kevin Bedford	Gideon Griswold	Justine Myers
Lilia Bedford	Andy Heren	Julia Nelson
Rohn Blake	Neal Higgins	Justin Nelson
Caleb Boe	Alissa Hoyme	Mark Nelson
Daniel Boe	Julie Hoyme	Nicole Nelson
Don Boe	Ken Hoyme	Eric Oakley
Joshua Boe	Kirsten Hoyme	Glen Overby
Caylin Bowman	Ken Jarosch	Nic Rosenau
Cindy Bowman	Paul Jarosch	Seamus Rosenau Blake
Craig Bowman	Charles Jerve	Audra Rudys
Alex Brown	Abby Juntunen	David Schaffhausen
Luke Brown	Andy Juntunen	Nancy Schaffhausen
Steve Brown	Karen Juntunen	Cathy Schwartz
Thomas Brown	Brian Kilberg	Joy Schwartz
Allison Carpenter	Don Kilberg	Larry Schwartz
Elliot Carpenter	Laurie Kilberg	Ryan Schwartz
Laura Carpenter	Abby King	Todd Schweim
Todd Carpenter	Eric King	Dwayne Shmel
John Clifton	Ray King	Elizabeth Shmel
Kevin Cochran	Sharon King	Richard Shmel
Seth Cochran	Cathy Komada	Susan Shmel
Ted Cochran	Jacqueline Komada	Bryan Sullivan
Jason Colt	Jeffery Komada	Alyssa Taylor
Jim Copple	Vanessa Komada	Jeff Taylor
Kaylee Copple	Edward LaCroix	McKenna Taylor
Paige Copple	Ellison Lenz	Mark Thell
David DeHaut	Sarah Lenz	Cheryl Vatsaas
Ben Ericksen	Stuart Lenz	Christian Vatsaas
Ethan Erpelding	Alex Lundeen	Ingrid Vatsaas
Mike Erpelding	Phyllis Lundeen	Rick Vatsaas
Alan Estenson	Randy Lundeen	Charlie Weisman
Allison Fliger	Carol Marple	Henry Weisman
David Fliger	Buzz McDermott	Joe Weisman
James Fliger	Bruce McLeod	Mabel Weisman
Melissa Fliger	Tim Melody	Aimee Whitaker
Espen Fredrick	Lyle Merdan	Austin Whitaker
Kris Fredrick	Gerald Meux Jr	Cindy Whitaker
Kristina Fredrick	David Miller	David Whitaker
Owen Fredrick		Joseph Wright

Roster provided by MASA Secretary/Treasurer Jason Colt

137 Members!

HELP WANTED

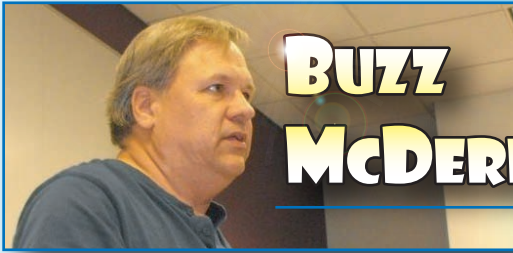
Please help the club function smoothly. Consider showing up early to a launch to help set the range up or staying late to help take the range down. Your help is GREATLY appreciated. Thanks!



MASA Member Spotlight

The Who's Who of MASA

#1



Name: Gerald Joseph Patrick Michael McDermott, Jr.
Nickname: Buzz
Born in: San Antonio, TX Grew up in: Fort Worth, TX
Currently Resides in: Blaine, MN
Attended: Austin College in Sherman, TX
Favorite Subject in High School: Physics
Favorite Subject in College: Computer Science
Current Occupation: Software Developer since college
Previous Occupation: Stocker at Neiman Marcus in High School
Occupation Desired as a Child: Astronaut
Marital Status: Married Children: 3 Brothers & Sisters: 3
Other Countries Visited: Canada, Mexico, Belize, Honduras, Guatemala, US Virgin Islands, Britain, and France
US States Visited: About half of them
Dream Vacation: A month in Australia
Favorite TV Show: Currently: Caprica; All time: BSG
Favorite Movie: Almost every sci-fi ever made, even bad ones!
Favorite Musical Artists: Soundgarden and Audioslave
Currently Reading: Live Free or Die, John Ringo
Favorite Cartoon Character: Wyle E Coyote
Favorite Restaurant: Ruth's Chris
Favorite Spectator Sports: Pro Football and Lacrosse
Sports Played in High School: Track
Four Words Describing Buzz: Very obsessive rocketry enthusiast
Historical Person Buzz Would Like to Meet: Albert Einstein
Favorite Recreational Activities: Rocketry and Astronomy
Pets: Dog, cat, fish
Human's Most Significant Invention, Endeavor or Accomplishment: Getting humans to the moon and back, safely
Something Very Few People Know About Buzz: I am outgoing and talkative only so people don't find out I am really a very shy and quiet person.
Favorite Superhero: Iron Man
Would Travel into Space if the Opportunity Arose: Yes!!
Other Hobbies Besides Rockets: Astronomy
Involved in Rocketry Since: 1965
Got Started in Rocketry From: Ad in Boys Life magazine when I was a Cub Scout
Favorite Rockets: Estes free plan #55, Starship Excalibur; Estes Interceptor; Centuri SSV Scorpion
Currently a Member of: NAR and Tripoli
Current Fleet Size: About 130 already built, well over 200 un-built kits, and enough parts to build an infinite number more
Fleet Size Sacrificed to the Rocket Gods: Over 100
Biggest Advantage to Being a Member of MASA: The people! It's great to meet and fly with others in the hobby
Has Attended These NAR National Events: NARAM, NSL, NARCON, TARC Finals
Most Challenging Build so far: Centuri 1/100 Saturn 1B
Next Rocket to Build: Apogee Saturn 1B
Rocket Wish List: 1/100 Space Shuttle with full stack; every Centuri 'Super' kit

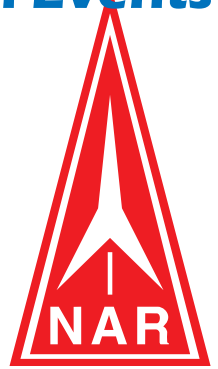
MASA PLANET

2011 NAR National Events

NARCON 2011 March 12 - 13
Seattle, Washington
www.narcon.org

National Sport Launch June 10 - 11
Lucerne Valley, California
www.nsl2011.org

NARAM 53 July 23 - 29
Lebanon, Ohio
www.naram53.quarkers.net/



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

➤ **Ted Cochran** ➤ **Buzz McDermott**
➤ **Jason Colt** ➤ **Jeff Taylor**
➤ **Carol Marple**

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

MASA Directory

Established January 1998
Founding President: Russ Durkee

2011 President

Carol Marple - masarocketry@rocketmail.com

2011 Vice President

Neal Higgins - nthiggins@gmail.com

2011 Secretary/Treasurer

Gerald Meux Jr. - kninja250r@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/>



2011 Meeting Schedule

Subject to Change

* Check MASA Website or Yahoo Group for updates

MASA February Meeting

Thursday, February 3 - 7:00 pm to 9:00 pm

Location: TBD*

Topic: TBD

MASA March Meeting

Thursday, March 3 - 7:00 pm to 9:00 pm

Location: TBD*

Topic: TBD

MASA April Meeting

Thursday, April 7 - 7:00 pm to 9:00 pm

Location: TBD*

Topic: TBD

MASA May Meeting

Thursday, May 5 - 7:00 pm to 9:00 pm

Location: TBD*

Topic: TBD

* These meetings will NOT be at the Science Museum of Minnesota due to SMM schedule conflicts

2011 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 22 - 10:00 am to 1:00 pm

Location: Sunrise Middle School - White Bear Lake

MASA February Launch

Saturday, February 26 - 10:00 am to 1:00 pm

Location: Sunrise Middle School - White Bear Lake

MASA March Launch

Saturday, March 26 - 10:00 am to 1:00 pm

Location: Elk River VFW

MASA April Launch

Saturday, April 23 - 9:00 am to 3:00 pm

Location: Nowthen

MASA May Launch

Saturday, May 21 - 9:00 am to 4:00 pm

Location: Nowthen

Scheduled dates, times and launch sites are subject to change due to weather and/or field conditions. Check the MASA Web Site or MASA Yahoo Group for up-to-date changes.

ADDRESS SERVICE REQUESTED

MASA Planet
c/o Jeff Taylor
9240 University Ave NW #209
Coon Rapids, MN 55448

