

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, 2009 and 2010 LAC Newsletter Award Recipient

July - August 2011

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NAR Section 576

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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/>



Kit Review

Polecat Aerospace 5.5" FatMan

By Jeff Taylor

I recently completed a Polecat Aerospace 5.5" FatMan kit, a high power upscale of the classic Estes FatBoy. It measures 5.5" in diameter, stands about 27" tall and weighs in at well over 4.5 pounds. The kit comes with a fiberglass-wrapped

heavy-duty pre-slotted Body Tube, a fiberglass Nose Cone, 54mm Motor Tube, 1/4" plywood Centering Rings and 1/4" beveled Baltic Birch thru-the-wall Fins. Other goodies included in the kit are two U-Bolts and hardware, plywood Nose Cone Bulkhead, tubular nylon Shock Cord, Rail Buttons and Instructions.

Using 30 minute epoxy throughout, the construction was straightforward and a snap. After installing the U-Bolt Nuts in the forward Centering Ring and the Nose Cone Bulkhead, I secured them with epoxy. I also added some nose weight and coated the entire inside of the Nose Cone with an extra layer of epoxy. I added some standoffs for the Rail Buttons made out of 1" squares of 1/4" plywood. After the Fins



Continued on the Next Page....



Polecat FatMan Concluded

were epoxied in place and epoxy fillets were added, I smoothed it all out with some Elmer's Wood Filler thinned with water. My choice for motor retention was the 54mm PML HAMR Retainer. The base of the HAMR Retainer was permanently attached to the Motor Tube and aft Centering Ring with some JB Weld.

To finish the rocket I used Rustoleum Painter's Touch 2X Coverage Primer, followed by Apple Red paint on the Body and Nose, and Brilliant Blue on the Fins. It was all followed up by some gloss clear. To help give it the overall look of a stock Estes FatBoy, I ordered some vinyl decals for the kit from Sticker Shock. Unfortunately, when I started applying the first decal on the Fin, I noticed that the blue of the paint and the blue of the decal were so similar that you couldn't even tell there was a decal on there. In hindsight, I probably should have used a lighter blue paint on the Fins, but since all the painting was already done at that point, I just ordered some more Fin decals in a darker blue.

I replaced the stock white tubular nylon shock cord with some heavier red tubular nylon that I got from REI. I also ordered a custom red and blue 36" hemispherical parachute from Chutes by Boe. To finish it off, I have a red 18" Top Flight Nomex Blanket that my daughters got me for Father's Day.

With the 54mm Motor Tube, this kit can fly on up to "K" motors. Since I will be using 38mm "I" motors in mine, I got a PML 54/38 HAMR Adapter Kit that works perfectly with the HAMR Retainer.

Mine finally weighed in at 4 pounds 14 ounces (without a motor) once it was completed. According to RockSim, an AeroTech I-161W should lift it to just over 1,500 feet.

This was definitely a fun and easy rocket to build. It is the second high power kit that I have built and my first Polecat kit. The pros of the kit include easy directions and its heavy duty quality parts. Cons include no parachute and cost. The rocket kit alone was \$99.95 plus shipping, but with everything else I put into it, total costs exceeded \$250. At that price it probably won't fly too often, but is already one of my favorite rockets.

Now if I can just get the courage to fly it!

Component Sources:


- Polecat Aerospace 5.5" FatMan Kit
What's Up Hobbies (www.whatsuphobbies.com)
- FatBoy Vinyl Stickers
Sticker Shock (www.stickershock23.com)
- Custom 36" Hemispherical Parachute
Chutes by Boe (www.chutesbyboe.com)
- Red Tubular Nylon Shock Cord
REI (www.rei.com)
- PML 54mm HAMR Retainer
Hub Hobby Center (www.hubhobby.com)
- PML 54/38 HAMR Adapter
Hub Hobby Center (www.hubhobby.com)



MASA Member Spotlight

The Who's Who of MASA



Name: Jason Pokorny Age: 29
Nickname: Most people call me by my last name
Born in: Wilkes-Barre, PA Grew up in: Wyoming, PA
Currently Resides in: Owatonna, MN
Favorite Subject in School: American History
Current Occupation: Refrigeration Operator for Seneca Foods in Montgomery Minnesota
Occupation Desired as a Child: A ninja turtle
First Job: Working for my Aunt Dee in the summer building in-ground swimming pools
Marital Status: Engaged Children: 1 Brothers & Sisters: 0
Other Countries Visited: Iowa
US States Visited: 14
Favorite TV Show: Ancient Aliens
Favorite Movie: Transformers
Currently Reading: Inspiration by Dr. Wayne Dyer
Favorite Cartoon Character: SpongeBob 
Favorite Restaurant: Famous Dave's
Favorite Spectator Sports: Football
Sports Played: Most all of them
Four Words Describing Jason: Family - Open - Detailed - Simple
Historical Person Jason Would Like to Meet: George Washington
Favorite Recreational Activities: Road trips with the family - Taking everybody shopping
Pets: None
Human's Most Significant Invention, Endeavor or Accomplishment: Electricity
Favorite Superhero: IronMan
If he could live anywhere in the world, Jason would pick: Right here is just fine with me
Would Travel into Space if the Opportunity Arose: If my family could come along
Biggest Pet Peeve: People that stand and talk to other people in the middle of doorways
Other Hobbies Besides Rockets: Playing video games and spending time with the family
Involved in Rocketry Since: 2 years
Got Started in Rocketry From: Wanted a hobby where I can build something and use it
Favorite Rockets: The Photon Probe, it's the best looking one I've built
Current Fleet Size: 8
Fleet Size Sacrificed to the Rocket Gods: 1
Biggest Advantage to Being a Member of MASA: Meeting people with the same interest and "talking shop" about it
Most Challenging Build so far: SR-71 Blackbird
Next Rocket to Build: A cluster engine rocket
Top of Jason's Rocket Wish List: The Saturn V 4' replica

Jason adds: "I intend to participate as much as I can in this club, to be a good volunteer, make some friends and continue to learn more and more about rocketry. To also make it another thing that we do together as a family and enjoy each others company."

Outreach Report Girl Scout Space Day

By Mike Erpelding NAR #79922

Saturday May 14, 2011
Willmar, Minnesota

MASA was contacted by the Girl Scouts of Minnesota and Wisconsin Lakes and Pines about doing a presentation for their Space Day event at Willmar High School in Willmar, MN on Saturday May 14, 2011. MASA President Carol Marple and I volunteered to help with the event. It was decided to have the Girls build a model rocket and weather permitting; fly it. The Zippy by Starlight Rocketry was chosen for the rocket model. Coincidentally, May 14th happened to be National Model Rocket Day.

The weather on the 14th was less than desirable. It was drizzling with a wind forecast of 10- 20 mph winds. Right at the safety cut off for wind speed. Oddly enough the wind forecast for Watkins was only 5- 15 mph, just 50 miles away. I was hoping conditions would improve by afternoon. We were expecting 60 Girl Scouts with 2 additional late registries.

We were planning on doing two build sessions in the morning with launching (weather permitting) at 3 pm. Carol and I started preparations by removing the plastic nosecones from the kits and pre-gluing them together with plastic cement. We both agreed that pre-gluing the nosecones would be better than having the kids use the toxic cement.

The assembly of the rockets went well in both build sessions. The kids, with the help of their parents following our guidance, built their rockets in about one hour.

We waited patiently all day for the weather to improve. The weather continued to rain on and off with wind speeds around 17 to 20 mph. At 2:30 Carol and I decided that we were going to scrub the launch and do a whole assembly presentation on rocketry. Both of us brought several rockets along to show. I



did my usual explanation of different types of rockets and recovery methods. Carol talked about different places to purchase rockets. Carol's Rocket Girl Level 2 cert rocket was a huge hit. Carol also talked about the certification process. Carol also had her "J" motor casing for Rocket Girl with to show the difference between a J motor and the Quest "A" motors we were going to use if the weather would have cooperated. We both talked about how we got started in rocketry. We finished our presentation at about 3:30 pm.



**Are you considering a NAR
High Power Level 1 or Level 2
Certification Flight Attempt
this summer at a MASA launch?**

Please contact MASA President Carol Marple (masarocketry@rocketmail.com) ahead of time so that arrangements can be made in advance to help make your certification flight a success.

Good Luck!

NAR High Power Certification information can be found at www.nar.org

IMPORTANT REMINDER TO ALL MASA MEMBERS, VISITORS AND GUESTS:

We are very fortunate to be able to have access the land where we conduct our launches. Please remember that we do not own this land - we are only guests.

PLEASE REMOVE ALL OF YOUR TRASH!



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If prior arrangements are made, Jeff Taylor can delivery your boxes to you at the next launch or meeting

	.30 CAL \$7	.50 CAL \$9	SAW \$16	40MM \$14	120MM \$20
Length (Inside - Outside)	10 1/8 - 11	11 - 12	11 7/8 - 13	17 1/4 - 18 5/8	11 - 12 1/2
Width (Inside - Outside)	3 3/8 - 3 3/4	5 5/8 - 6 1/8	6 3/4 - 7 1/4	5 1/2 - 6 3/8	5 1/2 - 6 3/4
Height (Inside - Outside)	6 1/2 - 7 1/4	6 3/4 - 7 3/8	8 1/4 - 9 3/4	9 1/2 - 10 1/4	31 3/8 - 31 3/4
Volume (CI)	222.1	417.7	661.3	901.3	1898.2
Weight (lb)	3.7	5.6	6.6	14.3	22.5
Cover Type	Hinged	Hinged	Hinged	Double Latch	Double Latch



Outreach Report

North Fork Live Wires 4-H Club

By Mike Erpelding NAR #79922

Sunday April 17, 2011

Elrosa, Minnesota

I was invited by Brian Wesbur, a friend of mine from 4-H, to do a rocketry presentation at their family's local 4-H meeting in Elrosa, MN on Sunday April 17, 2011. Since their club meets at the local catholic school we decided to do a demo launch on the playground/ back yard. The weather was sunny with a light breeze out of the NE.


Following the regular club's business meeting we had two 4H'ers give presentations to practice for the county fair. One presentation was on FFA official dress uniforms. The second presentation was on how to make chocolate instant pudding. I was up next.

I started by showing and explaining several different examples of model rockets:

- Different recovery methods/ recovery devices
- Scale rockets both from kits and scratch built
- Clusters and Staged Rockets
- Black powder vs. composite motors

Next I talked about the Team America Rocketry Challenge. Then I talked about High Power Rockets while the 4-Hers and their parents looked through copies of Sport Rocketry and Extreme Rocketry that I passed around. I answered any questions that any of the kids or parents had during the whole presentation.

Following a milk and pudding break we headed outside to launch some rockets.

I had Double Dozen set up with 3 "MASA" pads. I brought along a few Alpha III's and a Deuces Wild. Brian's family also brought some Gnomes and some payload rockets that were also 13mm kits. All the kids (about 10 of them) had a chance to fly a rocket at least once. Polly Pocket dolls were the payload of choice for the payload rockets. I also set up Double Dozen for one drag race. Grand total we had about 20 flights. All the kids and parents seemed to have fun. 

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

 **Mike Erpelding**  **Jason Pokorny**
 **Alan Estenson**  **Alyssa Taylor**
 **Gerald Meux Jr**  **Jeff Taylor**

Fix It

Zipper Repair Part 1

By Jeff Taylor

It's going to happen to everyone at one point or another, maybe even more often than we would care to admit: the dreaded Zipper.



When your rocket's ejection event occurs when it is going too fast (either on the way up or the way down) the Shock Cord can sometimes rip the side of the Body Tube due to the opposing forces when the rocket wants to keep going in the same direction and the parachute wants to go in another direction. The jagged carnage that your Body Tube suffers is affectionately known as a "zipper".

There are a few different ways to repair a zipper, depending on the Body Tube material and how long the rip is. The easiest way is to simply cut off the damaged area and end up with a shorter rocket. In this example, I am showing how I repaired zipper damage on a 4" diameter heavy-duty paper Body Tube. Part 1 covers the structural repair, and the Part 2 will cover the cosmetic repair in a future issue.



The subject for this particular repair article is my daughter Alyssa's LOC Phantom, which suffered a 3 1/2" zipper on her second flight, only 3 weeks after her successful HPR L1 certification flight. I have to take the blame for causing this zipper since I drilled out her delay element a little too much, and the parachute deployed while the rocket was still going straight up.

Step 1 was to make a trip to Hub Hobby to get a piece of 4" diameter Body Tube and a Coupler. Luckily Hub carries a lot of these because apparently there are a lot of people like me who wreck their children's rockets. If you can't locate the right size of Tubing and Coupler to fit your particular rocket, you may need to explore other options for zipper repairs.



Step 2 was to remove the damaged portion of Body Tube. Alyssa decided that she wanted to keep the rocket the original length after repairs, so we measured back about 7 1/2" back from the front of the Body Tube and made a mark. This measurement cleared the entire damaged area, but more importantly allowed room to fit the 6" long Coupler



Continued on the Next Page....



Zipper Repair Continued

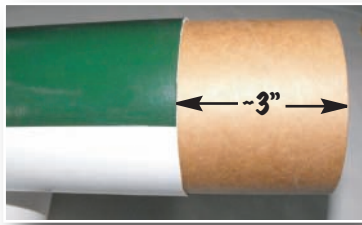
inside and still allowed plenty of clearance for the Nose Cone shoulder. A piece of paper was wrapped tightly around the Body Tube at the mark to act as a template to help make a straight cut. The damaged portion was cut off using several light cuts with a sharp hobby knife.

Step 3 was to simply cut a piece of the new section of Body Tube to the same 7 1/2" length using the same paper cutting guide as in step 2.



Step 4 was gluing it all together.

Since this joint has a lot of surface area for gluing and won't have too much compressive stress other than the weight of the Nose Cone under acceleration, it was decided that Elmer's Wood Glue would be used instead of epoxy. Wood glue was applied to the inside surface of the existing Body Tube



Tube and spread out. The 6" Coupler was inserted so that half of it would stick out from the rocket. After that dried for a few minutes, wood glue was applied to the inside surface of the section of new Body Tube

on the end that we had just cut in order to maintain a nice factory straight cut for the end that will mate up with the Nose Cone. A small wood glue fillet was also added inside the Tubes at both ends of the Coupler to remove the sharp edges so the recovery system wouldn't snag.

That's all there is to the structural repair of this zipper. Next up are the cosmetic repairs that include filling gaps and spirals, primer and paint, and recreating the curved line between white and green paint. Look for that in Part 2.



Congratulations!

The following MASA members successfully received their National Association of Rocketry

High Power Certifications at recent MASA launches:

- Alyssa Taylor** - Level 1 - LOC Fantom on an H128
- Craig Bowman** - Level 1 - PML X-Caliber on an H123
- Kent Peterson** - Level 1 - LOC IV on an H128
- Kent Peterson** - Level 2 - LOC Bruiser on a J350



2011 MASA Members

Registrations Received as of June 30

Cheryl Anderson	David Gensler	Justin Nelson
Hunter Anderson	Art Gibbens	Mark Nelson
Kevin Anderson	Hannah Gibbens	Kenny Peterson
Levi Anderson	Mathias Gibbens	Kent Peterson
Corey Bedford	Philip Gibbens	Jason Pokorny
Glenn Bedford	Renee Gibbens	Nic Rosenau
Kevin Bedford	Aidan Heaton	Seamus Rosenau Blake
Lilia Bedford	Andy Heaton	Audra Rudys
Rohn Blake	Kelli Heaton	David Schaffhausen
Caleb Boe	Scott Heaton	Nancy Schaffhausen
Daniel Boe	Andy Heren	Cathy Schwartz
Don Boe	Neal Higgins	Joy Schwartz
Joshua Boe	Alissa Hoyme	Larry Schwartz
Craig Borchard	Julie Hoyme	Ryan Schwartz
Caylin Bowman	Ken Hoyme	Todd Schweim
Cindy Bowman	Kirsten Hoyme	Dwayne Shmel
Craig Bowman	William Inboden, Jr.	Elizabeth Shmel
David Bright	Abby King	Richard Shmel
Sara Bright	Eric King	Susan Shmel
Alex Brown	Ray King	Gene Stoneman
Luke Brown	Sharon King	Bryan Sullivan
Thomas Brown	Cathy Komada	Brianna Tamez
Andrew Carlson	Jacqueline Komada	Maria Tamez
Allison Carpenter	Jeffery Komada	Alyssa Taylor
Elliot Carpenter	Vanessa Komada	Jeff Taylor
Laura Carpenter	Edward LaCroix	McKenna Taylor
Todd Carpenter	Ellison Lenz	Mark Thell
Kevin Cochran	Sarah Lenz	Brian Uhlenkamp
Seth Cochran	Stuart Lenz	Julia Uhlenkamp
Ted Cochran	Carol Marple	Lukas Uhlenkamp
Jason Colt	Buzz McDermott	Natalie Uhlenkamp
Ben Ericksen	Bruce McLeod	Cheryl Vatsaas
Ethan Erpelding	Lyle Merdan	Christian Vatsaas
Mike Erpelding	Gerald Meux Jr	Ingrid Vatsaas
Alan Estenson	David Miller	Rick Vatsaas
Jace Flansburg	Alex Moser	Anand Vyas
Jeff Flansburg	Jack Moser	Aimee Whitaker
Jennifer Flansburg	Robert Moser	Austin Whitaker
Espen Fredrick	Steven Moser	Cynthia Whitaker
Kris Fredrick	Bob Moyle	David Whitaker
Kristina Fredrick	Lance Murphy	Joseph Wright
Owen Fredrick	Mike Murphy	David Wurmfeld
	Scott Murphy	

Roster information provided by

MASA Secretary/Treasurer Gerald Meux Jr.

127 Members to Date!

Chat with other MASA members and get the latest MASA news and information on the MASA Yahoo Group found at <http://groups.yahoo.com/group/masarocketry>. You can sign up for the Yahoo Group by sending an email to the following address:

masarocketry-subscribe@yahoogroups.com

MASA Welcomes the Following 29 New Members:

-  **Craig Borchard**
-  **Jace Flansburg**
-  **Jeff Flansburg**
-  **Jennifer Flansburg**
-  **Aidan Heaton**
-  **Andy Heaton**
-  **Kelli Heaton**
-  **Scott Heaton**
-  **Cathy Komada**
-  **Jacqueline Komada**
-  **Jeffery Komada**
-  **Vanessa Komada**
-  **Alex Moser**
-  **Jack Moser**
-  **Robert Moser**
-  **Steven Moser**
-  **Kenny Peterson**
-  **Kent Peterson**
-  **David Schaffhausen**
-  **Nancy Schaffhausen**
-  **Cathy Schwartz**
-  **Joy Schwartz**
-  **Larry Schwartz**
-  **Ryan Schwartz**
-  **Anand Vyas**
-  **Aimee Whitaker**
-  **Austin Whitaker**
-  **Cynthia Whitaker**
-  **David Whitaker**

MASA Member Spotlight

The Who's Who of MASA

ALYSSA TAYLOR



Name: Alyssa Danielle Taylor Nickname: Aly
Born in: Robbinsdale, MN Currently Resides in: Shoreview, MN
Currently Attending: Saint Catherine University
Favorite Subject in High School: Biology
Favorite Subject in College: Genetics
Current Occupation: Full-time college student
Previous Occupation: Full-time high school student
Occupation Desired as a Child: Veterinarian
Marital Status: Single and proud of it
Countries Visited: Canada, Britain, France, Germany, Austria, Amsterdam, and Italy
Future countries visit: South Africa, and Namibia
US States Visited: About 27 states
Dream Vacation: Africa
Favorite TV Show: Grey's Anatomy and The Big Bang Theory
Favorite Movie: The Hangover
Favorite Musical Artists: AC/DC, Bon Jovi, Taylor Swift & more
Favorite Cartoon Character: Mickey Mouse
Favorite Restaurant: Ichiban Japanese Steak House
Favorite Spectator Sports: Baseball and Football
Sports Played in High School: Volleyball
4 Words Describing Her: Friendly, Organized, Nice, Responsible
Historical Person she would like to Meet: Rosalind Franklin
Favorite Recreational Activities: Rocketry and Golf
Pets: Two Golden Retrievers, Kailey and Jackson
Human's Most Significant Invention, Endeavor or Accomplishment: The discover of the DNA
Something Very Few People Know About Alyssa: I compete in the AKC (American Kennel Club) Agility, Conformation, Obedience, and Rally-Obedience with my two Golden Retrievers, receiving MANY titles, ribbons, 1st-4th places, and trophies. I also visit various hospitals with my dog, Kailey who is a registered therapy dog. I am also a huge NASCAR fan. I also competed in First Lego League for about 7 years. I am actually a really quiet person when I first meet people, but after I get to know them better, I come out of my shell.
Favorite Superhero: Iron Man
Would Travel into Space if the Opportunity Arose: Duh
Other Hobbies Besides Rockets: AKC and TDI (Therapy Dogs International)
Involved in Rocketry Since: 2005
Got Started in Rocketry From: My dad
Favorite Rockets: LOC Phantom, FatBoy, and SLS Aero-Dart
Currently a Member of: MASA, NAR, Greater Twin Cities Golden Retriever Club, Twin Cities Obedience Training Club, American Kennel Club
Current fleet size: Don't even ask, I have no idea.
Fleet Size Sacrificed to the Rocket God: Surprisingly NONE :)
Biggest Advantage to Being a Member of MASA: Meeting a lot of great people :)
Has Attended These NAR National Events: NARAM & NARCON
Most Challenging build so far: LOC Phantom
Next Rocket to Build: I have two FatBoys that are going to look like minions from Despicable Me
Rocket Wish List: Another high power rocket



MASA 3rd Annual NAR Regional Results



On Saturday and Sunday, June 4th and 5th, MASA held its third NAR Sanctioned Regional Contest. Once again, Mike Erpelding served as the contest director. Thank you, Mike, for all of your hard work!

The events were:

- > Open Spot Landing (WF 4)
 - > A Helicopter Duration (WF 20)
 - > 1/2A Super-Roc Duration (WF 13)
 - > Drag Race (WF 2)
 - > C Eggloft Altitude (WF 18)
 - > A Cluster Altitude (WF 16)
- (Total Weighing Factor: 73)

Thank you to all the competitors, timers, altitude trackers, and everyone who helped out!

Saturday was a beautiful, sunny day. The breeze out of the northwest was a little stronger than we would have preferred. Sunday was darn near perfect. Again, it was beautiful and sunny with only a light breeze out of the east.

Overall Results:

3rd Annual MASA Summer Regional Meet Champions

Div	Place	Name	Section	Total Points
A	1	Alyssa Stenberg	581	1998
A	2	Zachery Stenberg	581	1506
C	1	Ray King	576	1914
C	2	John Cieslak	558	1146
C	3	Alan Estenson	576	714
C	4	Art Gibbens	576	318
C	5	Ted Cochran	576	252
C	6	Michael Erpelding	IND	84
C	7	Jon Stenberg	581	66
C	8	Mark Thell	576	60
C	9	Buzz McDermott	576	36
C	10	Neal Higgins	IND	18
C	10	Carol Marple	576	18
C	10	Jeff Taylor	IND	18
C	11	Lyle Merdan	IND	6

3rd Annual MASA Summer Regional Meet Champions

Place	Section Name	Section Number	Total Points
1	CATO	581	3570
2	MASA	576	3312
3	WOOSH	558	1146
4	Independant	N/A	126

Individual Event Results:

A Helicopter Duration

Div	Place	Name	Sec	Flt 1	Flt 2	Total	Points
A	1	Alyssa Stenberg	581	11	42	53	600
A	2	Zachery Stenberg	581	ROT	37	37	360
C	1	John Cieslak	558	45	50	95	600
C	2	Ray King	576	49	39	88	360
C	3	Ted Cochran	576	36	37	73	240
C	4	Alan Estenson	576	15	16	31	120
C	5	Jon Stenberg	581	11		11	60

A Cluster Altitude

Div	Place	Name	Sec	Flt 1	Flt 2	Total	Points
A	1	Zachery Stenberg	581	319		319	480
A	2	Alyssa Stenberg	581	292	NR	292	288
C	1	Ray King	576	205	EJ	205	480
C	2	Alan Estenson	576	197		197	288
C	3	John Cieslak	558	188		188	192
C	--	Art Gibbens	576	NC	EJ	0	48
C	--	Ted Cochran	576	TL		0	0

C Egg Lofting Altitude

Div	Place	Name	Sec	Flt 1	Flt 2	Total	Points
A	1	Alyssa Stenberg	581	NC	199	199	540
A	2	Zachery Stenberg	581	119		119	324
C	1	Ray King	576	NC	147	147	540
C	2	John Cieslak	558	131		131	324
C	3	Art Gibbens	576	NC	NC	65	216
C	--	Mark Thell	576	NC		0	54
C	--	Alan Estenson	576	EJ	TL	0	0

1/2A Super-Roc Duration

Div	Place	Name	Sec	Flt 1	Flt 2	Total	Points
A	1	Alyssa Stenberg	581	1500 (15 s)		1500	390
A	2	Zachery Stenberg	581	999 (11 s)		999	234
C	1	Ray King	576	8400 (84 s)	3100 (31 s)	11500	390
C	2	Alan Estenson	576	2176 (23 s)	2406 (36 s)	5582	234
C	--	John Cieslak	558	SEP		0	0
C	--	Art Gibbens	576	EJ		0	0

Open Spot Landing

Div	Place	Name	Sec	Flight 1	Total	Points
A	1	Alyssa Stenberg	581	1.63	163	120
A	2	Zachery Stenberg	581	12.52	1252	72
C	1	Ray King	576	0.76	76	120
C	2	Michael Erpelding	IND	7.37	737	72
C	3	Art Gibbens	576	24.47	2447	48
C	4	John Cieslak	558	26.37	2637	24
C	5	Carol Marple	576	35.92	3592	12
C	6	Ted Cochran	576	36.09	3609	12
C	7	Alan Estenson	576	36.35	3635	12
C	8	Jeff Taylor	IND	40.61	4061	12
C	9	Neal Higgins	IND	41.94	4194	12
C	--	Buzz McDermott	576	SEP	0	0

Drag Race

Div	Place	Name	Sec	Flight 1	Total	Points
A	1	Alyssa Stenberg	581	1	1	60
A	2	Zachery Stenberg	581	2	2	36
C	1	Alan Estenson	576	1	1	60
C	2	Buzz McDermott	576	2	2	36
C	3	Ray King	576	3	3	24
C	4	Michael Erpelding	IND	4	4	12
C	5	John Cieslak	558	5	5	6
C	5	Art Gibbens	576	5	5	6
C	5	Neal Higgins	IND	5	5	6
C	5	Carol Marple	576	5	5	6
C	5	Lyle Merdan	IND	5	5	6
C	5	Jon Stenberg	581	5	5	6
C	5	Jeff Taylor	IND	5	5	6
C	5	Mark Thell	576	5	5	6



2011 Meeting Schedule

Subject to Change

Check MASA Website or Yahoo Group for updates

MASA August Meeting

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

Location: Science Museum of Minnesota - St Paul

Topic: NARAM 53 Discussion

MASA September Meeting

Thursday, September 1 - 7:00 pm to 9:00 pm

Location: Science Museum of Minnesota - St Paul

Topic: TBD

MASA Rocketober Meeting

Thursday, October 6 - 7:00 pm to 9:00 pm

Location: Science Museum of Minnesota - St Paul

Topic: TBD

MASA November Meeting

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

Location: Science Museum of Minnesota - St Paul

Topic: TBD

MASA December Meeting/Holiday Party

TBD

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 August Launch

Saturday, August 27 - 9:00 am to 4:00 pm

Location: Nowthen

Theme: "Come Out to the Races"

- 13th Annual Great UFO Drag Race
- 10th Annual Comanche-3 Drag race
- 2nd Annual Back-to-School Crayon Drag Race
- Baby Bertha Blastoff ("B" Motor Parachute Duration Contest)

MASA September Launch

Saturday, September 24 - 9:00 am to 4:00 pm

Location: Nowthen

Theme: Science Fiction

MASA Oddtober Launch

Saturday, October 22 - 9:00 am to 3:00 pm

Location: Nowthen

Theme: "Odd-tober"

- Halloween Rockets, Steampunk, Goony... Anything weird or out of the ordinary

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

