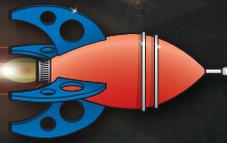


MASA PLANET



September - October 2011
Volume 14, Issue 5

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



NAR Section 576

Planet Table of Contents

Baby Bertha Blastoff Results	1
New HPR Certifications at MASA	1
Planet Contributors	1
Jeff Visits Semroc World Headquarters	2
FlisKits Turns 9 (That's 63 in Dog Years)	3
Member Spotlight - Meet Mike	3
Outreach Report - Stearns County Fair 4H	4
Member Spotlight - Meet Ted	5
Ray and Alan Host Next Fun Contest	5
Zipper Repair Part 2	6-7
2011 MASA Meeting and Launch Schedules	8

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/>

Baby Bertha Blastoff Results

The Baby Bertha Blastoff Contest was held at the August MASA Launch on August 27th. This was a Baby Bertha Duration event, where the rockets had to be "stock" Baby Berthas flown on standard black powder "B" motors. The rockets had to maintain the stock Baby Bertha shape per the rules, but the recovery device used was the choice of the competitor. Each competitor was allowed two flights. The results are:

Name	Flight 1	Flight 2	Score
Ray King	158.66	109.80	268.46
Dave Schaffhausen	28.72	60.75	89.46
Alissa Hoyme	41.04	26.53	67.57
Neal Higgins	31.66	30.69	62.35
Alan Estenson	34.31	27.83	62.14
Nancy Schaffhausen	29.61	DQ	29.61
John Clifton	24.35	-	24.35

For First Place, Ray received a rocket kit and a Fleet Farm gift card. For Second Place, Dave received a rocket kit. Congratulations to all of the contestants!

Congratulations!

The following MASA members successfully received their National Association of Rocketry

High Power Certifications at recent MASA launches:

Todd Schweim - Level 2 - Quantum Leap on a J275

Anand Vyas - Level 1 - Madcow Patriot on an H225

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

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

Ted Cochran

Ray King

Mike Erpelding

Jeff Taylor

Alan Estenson



A Special Visit to Semroc Headquarters

By Jeff Taylor

Tucked in at the end of a half-mile dead end road through a heavily wooded area just outside of Raleigh, North Carolina stands a mailbox with a small unassuming sign hanging from it that simply says “Semroc”. At the end of the driveway to the right sits a modest brick house with a walkway that curves around the two-car attached garage to the front door. The small and well manicured front lawn is shielded from the road by about 100 feet of trees. For all accounts you would assume that you could be at any home that could belong to anyone anywhere in the country. But you are not.

What lies behind that front door is not only the home of Carl and Sheryl McLawhorn, but it is also the Semroc World Headquarters. A ring of the door bell is answered by the barks of rocketry’s most well known dogs: Abby, Beans, Gizmo and Sami. As you are greeted at the door by Carl and Sheryl and enter into the foyer, the first thing you notice is the McLawhorn’s enthusiasm and hospitality. The second thing you notice is that it doesn’t look like a rocket factory – it looks like a very finely decorated southern home.

If you have ever bought a rocket kit from Semroc (www.semroc.com) you already know that they are wonderful kits, with exceptional quality parts and well-planned instructions. Semroc is also known for their lightning speed shipping, usually being delivered a day or two before you even place the order. Before walking through that front door, you may think that Semroc kits are manufactured, packaged, stored and shipped from a factory full of robots. But it is all done in this house by this family.

The formal living room and formal dining room are currently (and temporarily, as Sheryl states) used as a staging area for kits that are already packaged up, with floor to ceiling boxes labeled with familiar names such as “Mars Lander”, “Laser-X” and “Sky Hook”. Everywhere you look there are rocket kits and tens of thousands of parts, ready to ship to anywhere in the world at a moment’s notice. These two rooms probably rival the most well-stocked storage room of any hobby store, but as Sheryl exclaims, this is only the staging area – the overflow for the kits and parts that don’t fit downstairs in the order-filling room. As if seeing those two rooms weren’t jaw-dropping enough, a tour of the basement where the real work happens definitely will make your jaw drop.

As you descend the staircase, the first room on your left is what Sheryl refers to as “her room”. This is a room that makes you feel like you are at the North Pole entering Santa’s

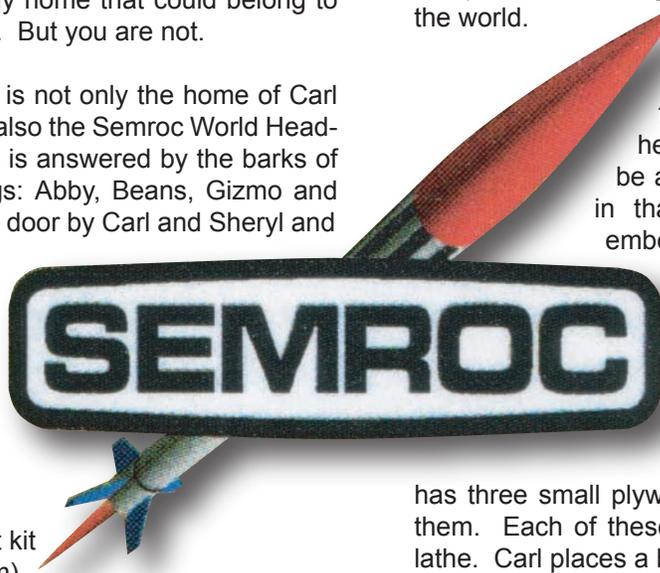
workshop. There is a desk with a computer and one of the biggest monitors you have ever seen. This is where Sheryl logs in every morning at 3:00 AM to print out the orders that have come in the night before. She then prints out the order and systematically fills it by moving from bin to bin until your order is complete and ready to ship. The perimeter of the room is filled with well-stocked bins of every Semroc kit that is offered and every single part that you can find on their website. Mind-boggling. The center of the room has a large table where the orders are boxed up for shipping.

The rest of the basement is separated into other rooms, each with their own purpose of making all those parts for all those kits. One room houses a small lathe and a set of several different sized mandrels. This is used for cutting all the body tubes to whatever length is needed. That room also houses a drill press and storage for enough balsa to build anything in the world.

Another room houses Carl’s secret future project that won’t be discussed here, but when it is up and running it will be a tremendous asset to rocketeers. Also in that room is where all of the special embossing is done for kits with intricate embossing details like the Saturn 1B or the Mars Lander.

Yet another room is where you will find a computer-controlled laser machine that is used to cut out all of the laser-cut fins. This room also has three small plywood boxes with clear plastic covers on them. Each of these boxes is a computer-controlled balsa lathe. Carl places a block of balsa into a clamp attached to a small motor, closes the plastic cover and punches in a few buttons on his computer. The block starts spinning as a Dremel on a carriage spins a cutting tool, and in a few seconds the balsa block is transformed into a precision nose cone – any size – any shape. Semroc has a place on their website where you can even design your own balsa nose cone shapes to whatever shape and dimensions you want.

Semroc is truly a world class operation, and when you see it all in person you realize that they had to build all the fixtures and tooling from scratch. From the cutting tool that slits motor tubes for motor hooks, to the embossing dies, to the rolls of plastic parachutes that dwarf a roll of paper towels, Semroc is truly a one-stop turn-key rocket company. But it is truly impressive to think that it is all done by Carl and Sheryl and their son Bruce. Semroc may be a small family-run company but they have a huge reputation and presence in the rocketry hobby. In the basement of a brick house. In the North Carolina woods.



**FOR A COMPLETE LINE OF SEMROC
ROCKET KITS, PARTS AND ACCESSORIES,
VISIT WWW.SEMROC.COM**



Happy Anniversary FlisKits!

In just nine years, Fliskits (www.fliskits.com) has grown from offering 12 kits to offering nearly 80 kits plus hundreds of parts and accessories. FlisKits is known for unique designs that reflect Jim Flis' out-of-the-box thinking, including the ACME Spitfire, Nantucket Sound, Deuces Wild and the Defaffeinator. FlisKits is celebrating their ninth anniversary during the entire month of September with the following activities:

Month-Long Raffle:

For each \$10 spent in a purchase from the FlisKits web site you will earn one (1) chance in an end-of-the-month raffle. No purchase necessary. You can also get one (1) free chance simply by sending FlisKits a Birthday (anniversary) Greeting! See web site for details.

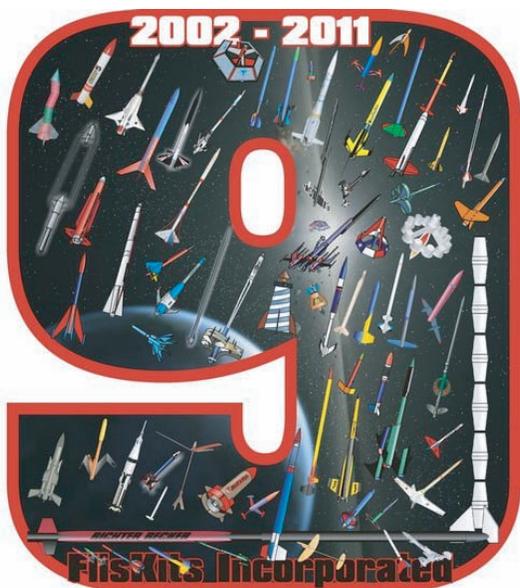
- 1st Prize: \$100 worth of FlisKits model rocket products!
- 2nd Prize: \$50 worth of FlisKits model rocket products!
- 3rd Prize: Single digit production number of FlisKits' newest kit release!

Weekly Drawing:

FlisKits will have a weekly drawings during September for all on-line orders placed that week. Prizes are TBD.

Photo Contest:

Send in your favorite photo of a FlisKits product. Limit 10 photos per person (photos may be edited to reduce size). Photos will be posted on the FlisKits web site and can be build pictures, static shots, photo-shopped into scenes and/or launch/recovery pictures! Use your imagination! Photos will be judged by Jim Flis, Brian McCarthy, and Jim's family (Kathy, Joe & Jen). Prizes are TBD.



See the complete line of FlisKits rocket kits, parts and accessories at www.fliskits.com

To participate in the MASA Member Spotlight in a future issue, send an email to jeff.taylor@mn-rocketry.net to request a questionnaire form.

MASA PLANET

MASA Member Spotlight

The Who's Who of MASA



**MIKE
ERPELDING**

Name: Michael Erpelding

Nickname: Most people call me Mike. At work some people used to call me Wyatt or just Erp.

Born in: St. Cloud, MN Grew up: Family Dairy Farm Outside of Watkins, MN where I once again reside. Age: 35

Attended School in the Kimball School District

Favorite Subject in School: I loved science classes! When I got into high school, I took every science class offered except taxidermy.

Current Occupation: Master Electrician

First Job: My first job off the farm was work study in the Construction Electrician department at St. Cloud Technical College during my second year. I worked for \$5.00/ hour, not to exceed 20 hours a week. I thought I was rich!

Marital Status: Divorced Children: 1 Son Ethan

Brothers & Sisters: 1 Sister Theresa (seen at NAR competitions)

Pets: 3 dogs, 2 cats and Ethan's 5 fish.

US States Visited: 15

Dream Vacation: #1) Wherever NARAM is being held, and #2)

Kennedy Space Center

Currently Reading: Various technical manuals for work.

Favorite Musician: Johnny Horton

Favorite Recreational Activities: Demolition Derbies, going for a walk.

If you could go back in time, the historical person Mike would you most like to meet: Thomas Edison

Favorite Superhero: Underdog

Human's Most Significant Invention, Endeavor or Accomplish-

ment: I think it would be the invention of the light bulb. The day no longer started and ended with the rising and setting of the sun.

Something Very Few People Know About Mike: I was the founding president of the student chapter of the MN Electrical Association at St. Cloud Technical College.

Biggest Pet Peeve: Shopping carts left in the middle of a parking lot.

Other Hobbies Besides Rockets: Woodworking, volunteer work for my church

Involved in Rocketry Since: The spring of 1989

Got Started: 8th Grade Industrial Arts Class

Favorite Rocket: My most favorite rocket is probably "Rockets Red Glare" my first scratch built, 3 "D" motor cluster, with a red/white/blue flag paint scheme.

Current Fleet Size: Dozens, some are broken, some are flyable, and some are still in the packaging.

Fleet Size Sacrificed to the Rocket Gods: Dozens

Biggest Advantage to Being a Member of MASA: The best part is getting to enjoy the company of so many other nice people that also love rockets.

Has Attended: 4 NARCONs and 4 NARAMs

Most Challenging Build so far: I'm working on my Estes Saturn V High Power Certification: NAR Level 2



Outreach Report 2011 Stearns County Fair 4H Rocket Launch

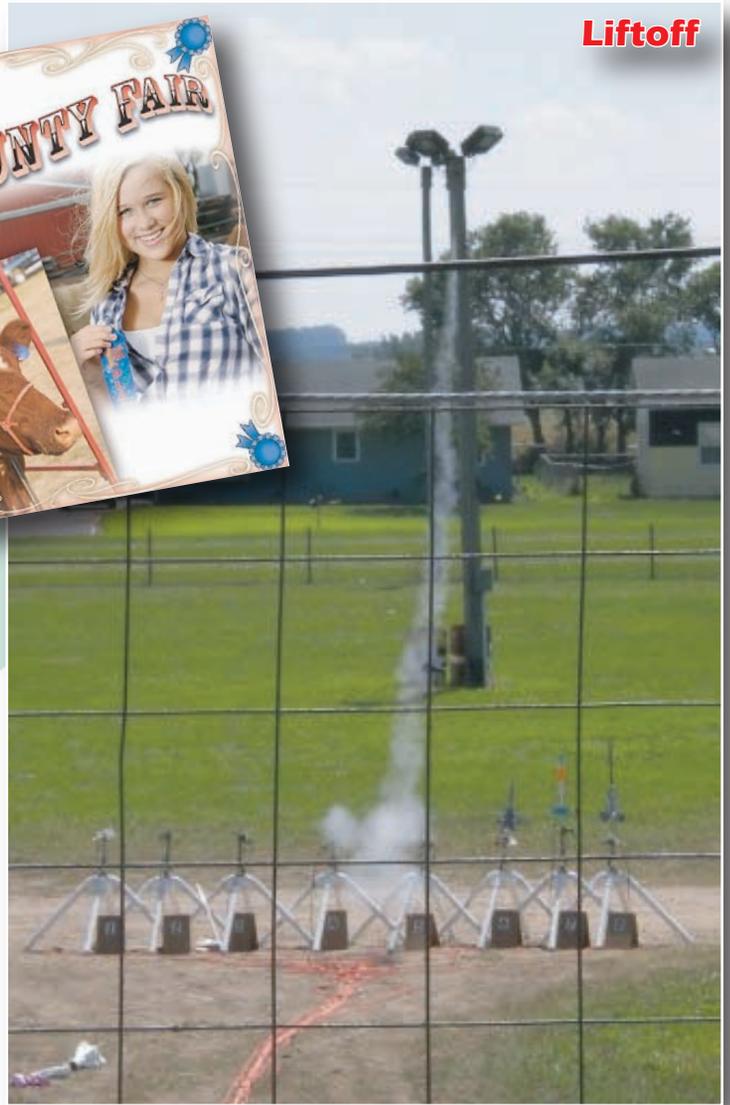
By Mike Erpelding NAR #79922

Saturday, July 30, 2011
Sauk Centre, Minnesota

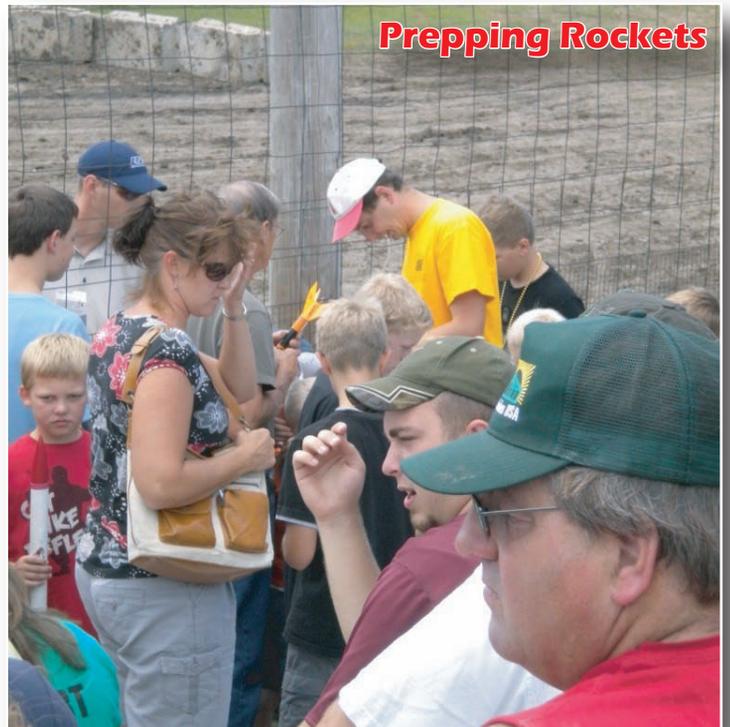
The 4-H rocket launch went well today. The weather turned out better than the forecast, with the sustained winds staying around 7 to 10 mph out of the south. Since the ideal wind direction at the fair is from the northwest, we angled the launch rods into the wind and had everyone use the smallest recommended engine for their rockets, to try to keep the rockets in the grandstand area.



Prepping Rockets



Loading Up the Pads



Prepping Rockets

We had a big turnout this year. We had almost 40 kids fly their rockets at the fair. The safety meeting and roster check off/ribbon hand out started at 1:15pm. Prepping started around 1:30 pm. Launching first started about 1:45 pm and continued until past 3 pm. The grandstand had good turnout of family and fair goers to watch the launch. The center section of the grandstand bleachers was full. We had increased participation of parents helping the kids prep and fly their rockets. Many were very enthusiastic about the launch and are looking forward to next year's launch.



MASA Member Spotlight

The Who's Who of MASA



TED COCHRAN

Name: Ted Cochran

Nickname: Ted is the nickname

Born in: New Haven, CT Grew up in: Clarksville, MD

Currently Resides in: Minneapolis, MN

Undergraduate School: Johns Hopkins University in Baltimore

Graduate School: University of Minnesota

Favorite Subject in School: Majored in Psychology

Current Occupation: Research and Development in Safety and Security Systems

First Job with a W-2: Summer Lifeguard

Marital Status: Married Children: 3 Sons and a Daughter ages 19-27

Brothers & Sisters: 3 Brothers & 2 Sisters

Other Countries Visited: Canada, England, Ireland, Wales,

Belgium, the Netherlands and Japan

US States Visited: All of them except Oregon, Idaho, Wyoming, Montana, North Dakota, Arkansas, Mississippi, Maine & Vermont

Dream Vacation: NARAM

Currently Reading: Just finished (and highly recommend) "How I Killed Pluto and Why it had it Coming" by astronomer Mike Brown

Favorite Spectator Sport: Baseball unless I can find a lacrosse game to watch

Sports Played: Biked several thousand miles in my younger days

Has Met the Following Celebrities: Homer Hickam, Buzz Aldrin, Susan Helms and a few other astronauts

Human's Most Significant Invention, Endeavor or Accomplishment: Without a doubt, the Lunar Landing

Something Very Few People Know About Ted: I've flown to 8 different commercial airports in Texas, and at least 2 in each of at least a dozen other states.

Biggest Pet Peeve: Drama, especially from people making assumptions about the motivations of others.

Other Hobbies Besides Rockets: Writing. Many MASA members will remember that I once wrote an anonymous short sci-fi story about Vern Estes that he later found on the internet, thought was funny, and then read to the audience at our 2007 NARCON, not knowing the author was in the room (talk about cornering a niche market...)

Involved in Rocketry Since: Off and on since I was about 8, and seriously as a BAR since 1995.

Favorite Rocket: Quantum Leap which has had several nice flights

Current Fleet Size: Approximately 90 built and a few dozen unbuilt kits

Fleet Size Sacrificed to the Rocket Gods: About 50 lost, destroyed, damaged beyond repair, worn out or retired, but that's out of 1100 flights since 1995.

Biggest Advantage to Being a Member of MASA: All the like-minded people building cool things to watch fly.

Has Attended: 1 NSL, 7 NARCONS, 8 NARAMs, 8 TARC Finals

Most Challenging Build so far: Quantum Leap - 2 stage, dual deploy, redundant altimeters with motor back up, zipperless design

Next Rocket to Build: Steampunk'd V2

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MASA PLANET

Fun Contest for MASA's September Launch

By Ray King and Alan Estenson

Ray and Alan have cooked up a fun contest for the September 24 MASA launch. You can fly this one using any rocket on any motor!

50 Second Set Duration Contest

The rules: Fly any single-stage model rocket on any size model rocket motor. Your goal is to achieve a flight duration time as close as possible to 50 seconds. Use either parachute or streamer recovery. You only get ONE official contest flight. You must declare this flight to be official BEFORE it launches. However, you may first make as many unofficial practice flights as you desire. Entry may not be radio-controlled, contain a dethermalizer or similar flight-termination device. No human intervention is allowed between launch and touchdown. Model must be allowed to land naturally.



Being Good at Being Stupid Doesn't Count.

Not an actual photo

Are you considering a NAR High Power Level 1 or Level 2 Certification Flight Attempt 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



Fix It

Zipper Repair Part 2

By Jeff Taylor

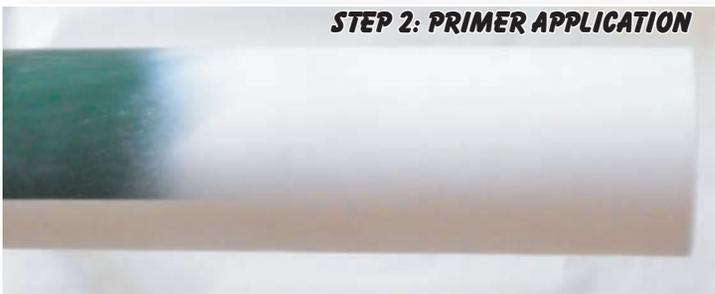


In the previous issue of the MASA Planet, I covered the steps I followed to repair a zipper-damaged rocket. That issue focused on the structural repair, while this issue will focus on the cosmetic repair. The subject rocket, my daughter's 4" diameter LOC Phantom, was painted green and white, with the edge between the two colors curving around the rocket. The damaged portion that was removed just happened to be the area that included the curve, so the repaired portion needed to have the curved paint line recreated.

Step 1 was to smooth out the joint between the pieces of Body Tubing and fill the spirals in the new section. I thinned out some Elmer's Wood Filler with just a little bit of water to get it to the consistency of pancake batter. Then I spread it around the new section and all around the joint. After that dried I sanded it all smooth with 220 grit sand paper.



Step 2 was to spray Primer on the area and allowing it to dry. This showed any minor imperfections left over from Step 1. These were fixed with a reapplication of a thin layer of the watered down Wood Filler. These steps were repeated until all the spirals were filled and until the joint between Body Tube sections was invisible.



Step 3 was to apply the white paint. Just like the first time this rocket was painted, I used Rustoleum Painter's Touch 2X Coverage Gloss White. The white paint was then allowed to dry for a few days.



Step 4 was to lay out the curved edge. I extended the existing edge between colors by placing an aluminum angle along the edge and lightly drawing a light pencil line on up the sides of the Body Tube. I then made a light mark on each line about 8 inches from the front end of the Tube. These marks were going to be the tangent points where the curve would start and end. I found the center of the white area and made another light mark about 4 inches from the front end of the Tube. This mark was my target for the center of the curve. All of the light pencil marks were made on one side so that the green paint would completely cover them.

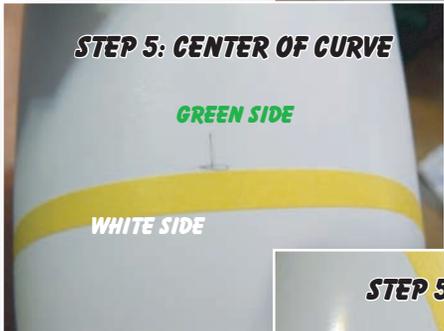


Step 5 was to mask the curve. Starting with yellow Tamiya masking tape (my masking tape of choice for curves) I carefully followed along the straight pencil lines up the 8 inch mark. At that point I started the curve, aiming towards the center target mark. This took a few attempts because I wanted the tape to be perpendicular to the Body Tube at the center target mark and I wanted the curve to be as smooth as possible. I then proceeded to complete the curve until it got to the 8 inch mark on the other line, and finished by following the straight line back. Using some masking paper that I picked up at Menard's, I covered the rest of the area that was to remain white. After all the masking was done I used a spoon to burnish down the edge so no paint could sneak under.



Continued on the Next Page....

Zipper Repair Concluded



Step 6 was to apply the green paint over the white paint. Again, I used Rustoleum Painter's Touch 2X Coverage Hunter Green.



Step 7 was to remove the masking. There are some debates about exactly when to remove masking. Some people think it is best to let the paint dry, while others believe it is best to remove the masking when the new paint is still wet. It may be a personal preference and it may also depend on the paint you are using, but as a rule for me I like to remove the masking right away before the paint dries. This way I have less of a chance of paint coming off with the masking, and I also like to see right away if my masking job failed or not. The only catch is that you need to make sure you don't touch any of the wet paint while removing the masks. Whatever way works for you, the important things to remember are to remove the masking in the opposite order that you put it on (the first piece of tape to be removed is the last piece that you put on, etc), and to pull the tape SLOWLY while pulling it back onto itself at as close to a 180 degree angle as you can get. That should assure a clean line when you are finished.



2011 Meeting Schedule

Subject to Change

Check MASA Website or Yahoo Group for updates

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

There is no official MASA meeting in December. Instead, any club business will be conducted at the Holiday Party. Date and location of the 2011 Holiday Party is TBD and will be announced when plans are finalized.

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 September Launch

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

Location: Nowthen

Theme: Science Fiction - bring out all of your science fiction-themed rockets to launch or just to show.

MASA Rocketober Launch

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

Location: Nowthen

Theme: "Odd-tober" - bring your "odd" rockets
- Halloween Rockets, Steampunk, Goony... Anything weird or out of the ordinary.

MASA November Launch

Saturday, November 19 (one week earlier than normal due to Thanksgiving) - 10:00 am to 1:00 pm

Location: Elk River VFW

Theme: Let it Snow - winter-themed rockets
- "Snowball" Drag Race

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

