

2006 NAR Medium Section of the Year

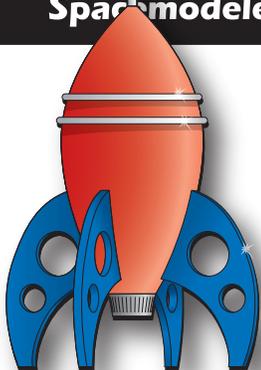
2007 NAR Medium Section of the Year

# MASA

# Planet

Minnesota Amateur  
Space Modeler Association

Volume 10, Issue 3  
November-December 2007



mn-rocketry.net



**MASA**

Established January 1998  
NAR Section 576

## Rocket Girl Meets the Rocket Boys October Sky Festival 2008



**MASA Member Carol Marple  
and October Sky Author  
Homer Hickam**

### Planet Table of Contents

October Sky Festival - Rocket Boys and Girls!!	1-3
Ken's Flight Report on Khufu's Pyramid	4
Chutes by Boe - The Parachute People	4
NARCON Returns to MASA	4
MASA Launch Windows	5
MASA Meeting Schedule	5
MASA Directory	5
Another Fine MESS (by Ken)	6-7
September Meeting Minutes	7-8
LAUNCH Magazine Supports NARCON 2008	7
October Meeting Minutes	8
September and October Launch Reports	9
Glen Overby's October Launch Pictures	10

On Saturday, October 6, the town of Coalwood came to life as a few thousand people descended on what is typically a quiet, decaying small town located in the mountains of McDowell County in southern West Virginia. Coalwood was once the home of Olga Coal Mining Company, and is perhaps better known in the rocketry hobby as the home to the original "Rocket Boys": Billy Rose, Roy Lee Cooke, Jimmy "O'Dell" Carroll, Sherman Siers, Quentin Wilson and Homer "Sonny" Hickam. They grew up in Coalwood in the 1950's during the Space Race, and were inspired by the Soviet launch of Sputnik in 1957 to build their own rockets. Their perseverance paid off, and their story has been immortalized in the book Rocket Boys by Homer Hickam and by the Hollywood movie October Sky, based on that book.

The coal mines had closed many years ago, and the only remaining business left in Coalwood is the local convenience store, which also happens to be the town's only gas station and deli. Many Coalwood homes have long ago collapsed, and many of the remaining ones are inhabitable. Sadly, Coalwood, WV is rapidly changing from a viable coal mining town of the past to a ghost town. But to echo the perseverance of the Rocket Boys in the 1950's this town will not give up either.

**Continued on the Next Page...**

### Time to Renew MASA Membership for 2008

With the New Year coming soon, make renewing your MASA Membership one of your priorities. Continued membership and new members are what help make MASA the premier rocket club in Minnesota.



**MASA's Annual Election of  
2008 Officers is coming up!  
Nominations will be accepted at the  
November Meeting**

### Contributors to this issue:

- Alan Estenson - Glen Overby
- Ken Jarosch - Jeff Taylor
- Carol Marple



# MASA Planet

## October Sky Festival Continued

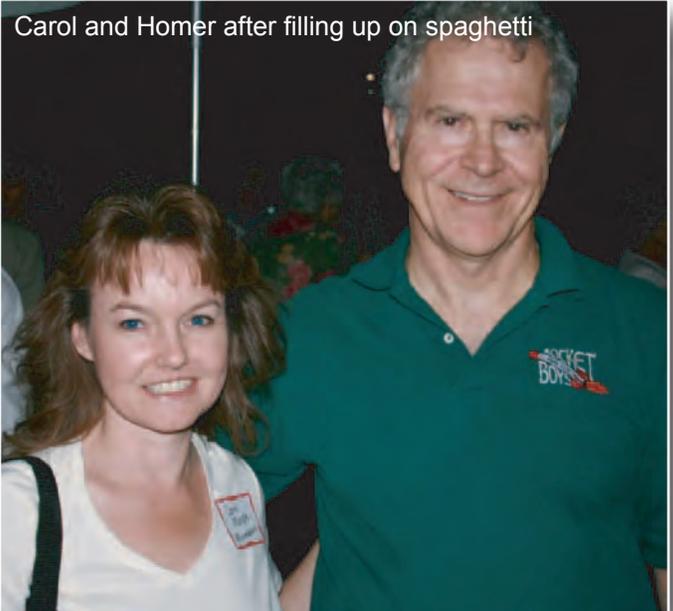
October 6th marked the ninth annual October Sky Festival, hosted by the Cape Coalwood Restoration Association. The festival includes appearances by the remaining Rocket Boys, an authentic West Virginia lunch served in the local church basement, local vendors selling homemade jellies, jams, quilts, and crafts, live music, a parade, and an actual rocket launch at Cape Coalwood. Homer Hickam is also on hand to meet fans and sign books. Other dignitaries that made appearances included Linda Hickam (Homer's wife), Bill Bolt (who worked in the Olga machine shop and helped the Rocket Boys build their rockets), Actor Scott Miles (who played Homer's older brother Jim in the October Sky movie), Astronaut Bill Readdy (who has logged over 672 hours in space on 3 separate shuttle flights), Grace Corrigan (mother of Christa McAuliffe who was lost in the Challenger Disaster), and Red Carroll (the only surviving father of a Rocket Boy).

25 teachers from Minnesota made their fourth trip to the October Sky Festival as part of "C2C" or the "Coalwood to the Cape" program, where they learn how space travel developed from its infancy in Coalwood to what it is today at Cape Canaveral. MASA members Carol Marple and Jeff Taylor were invited to be a part of the group of Minnesota teachers due to their involvement with Brad and Julie Blue, who run C2C and many other rocket and science oriented programs in the Minneapolis School District.

Being associated with the group of teachers allowed Carol and Jeff to attend many "behind the scenes" events at the October Sky Festival. This included a special invitation to a spaghetti dinner the night before the festival with Homer and Linda, Bill Bolt and O'Dell Carroll, and the Cape Coalwood Restoration Association (CCRA). It also included a chance to be in the parade that kicked-off the festival, although this was turned down in order to be able to actually see the parade as it rolled up to the old Olga Clubhouse. More perks came with an invitation to Red Carroll's home after the festival for some authentic apple cobbler and raspberry crisp, and to hang out with Red and O'Dell in the back yard. The next morning Carol and Jeff were also able to have breakfast with Rocket Boy Billy Rose, and to hear his story about Coalwood and how teachers were such a huge inspiration to his life.

Jeff also designed a special "50 years since Sputnik" t-shirt that Brad and Julie Blue had printed in Minneapolis and donated 100 of them to the CCRA to sell at the festival. Jeff was excited to hear that the shirts sold out in a matter of hours, with all of the \$1,000 profit going to the CCRA. Carol built a special edition October Sky Festival Fat Boy and Jeff built a special edition Deuce's Wild to bring to the festival for autographs.

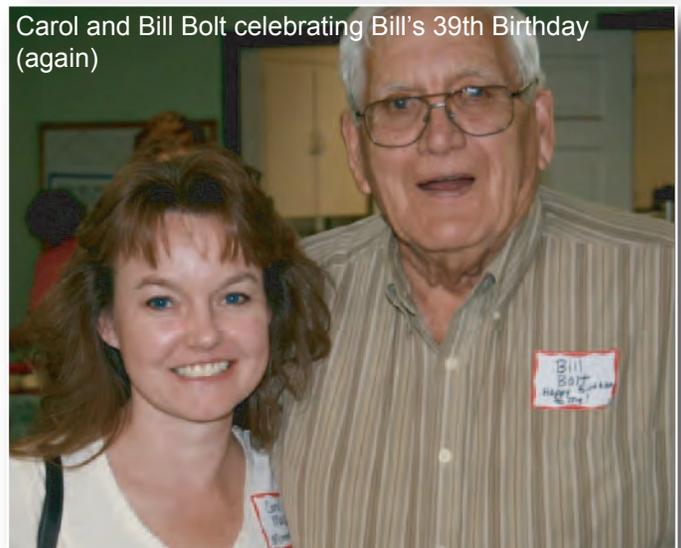
For more on the October Sky Festival, check out [www.coalwoodwestvirginia.com](http://www.coalwoodwestvirginia.com)



Carol and Homer after filling up on spaghetti



Grace Corrigan autographs Jeff's Deuce's Wild



Carol and Bill Bolt celebrating Bill's 39th Birthday (again)

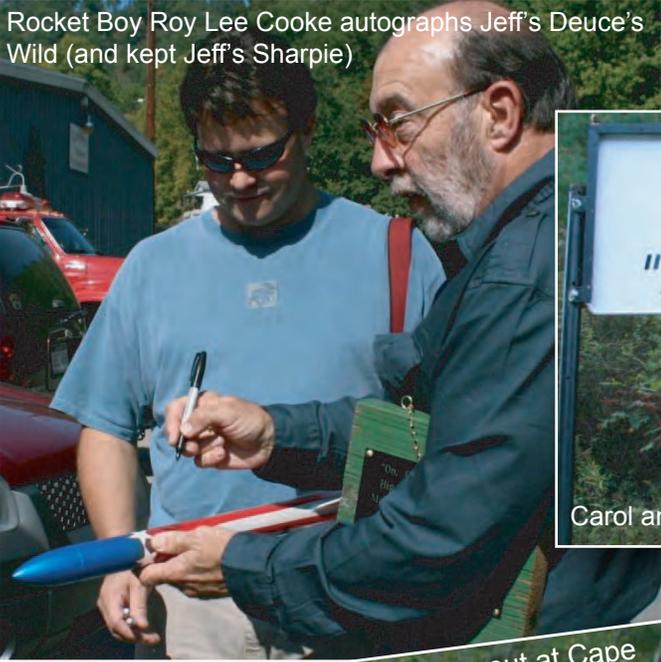
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**October Sky Festival Continued**

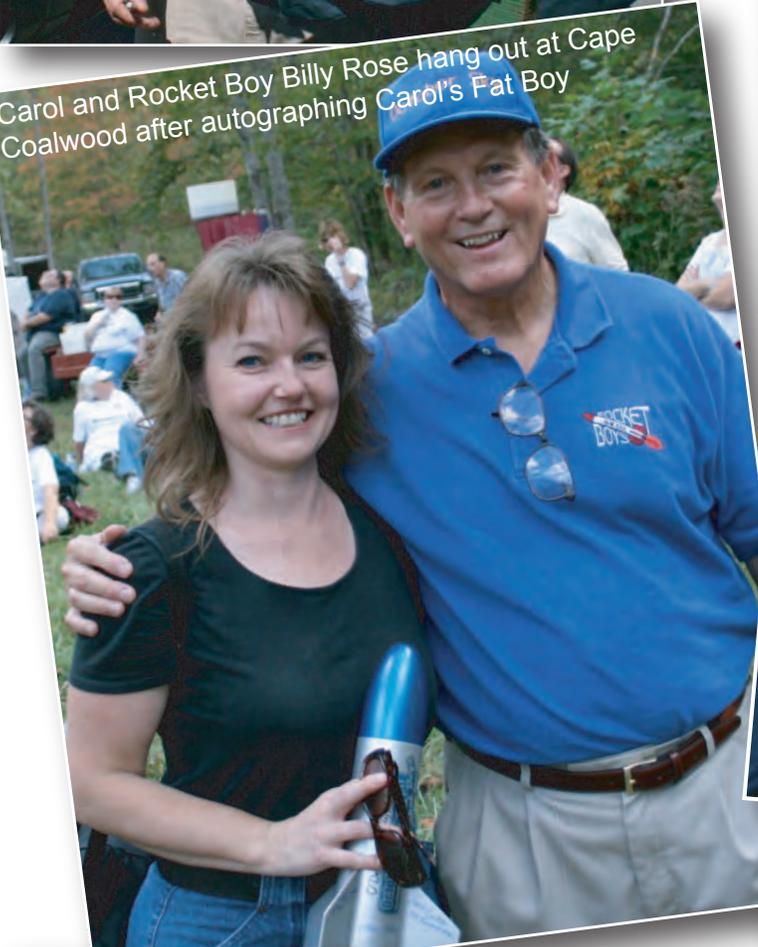
# MASA Planet

Rocket Boy Roy Lee Cooke autographs Jeff's Deuce's Wild (and kept Jeff's Sharpie)



Carol and the big sign

Carol and Rocket Boy Billy Rose hang out at Cape Coalwood after autographing Carol's Fat Boy



Sherman Siers Lane, the Church and the Clubhouse



Linda Hickam autographs Carol's Fat Boy

Homer Hickam Lane (with Homer's old house on the left)



Rocket Boys Roy Lee Cooke, Jimmy O'Dell Carroll, Billy Rose and Homer Hickam



# MASA Planet

## Flight Report

### Khufu's Pyramid

By Ken Jarosch

A follow-on report to Ken's kit review in the last issue of the *Planet*



This is the flight report on Sunward's Khufu's Pyramid.

At the Saturday MASA launch on August 25, 2007 I made the first flight of the Khufu's Pyramid. I had packed the pyramid at home so I had to repack on the field to remove the set in the chute. My first attempt resulted in a binding motor mount. So I did it again and this time it was tight but not sticking.

My original intent was to first try on a D21-4T for maximum power to weight ratio. But then I thought since this was for the review I should use a recommended motor. I used a D12-3 because of the 3 oz. nose weight. The rocket shot off the pad in a straight flight. Not much wind at the time. It made quite a good altitude before ejection at apogee. The motor mount cleared the pyramid and came into the field by streamer. The descent was fast but not serious. Meanwhile the 18" plastic chute had fully opened. The pyramid came in peak first and quite fast. The wind drifted it into the drink. No damage. I was very satisfied with the BP motor results. It should show well with a D13-4W, D24-4T and of course the E15-4W.

If everything works as it should the rocket will have a long life.

I may try the large F & G model later.

Ken J.



## Ready for an upgrade from plastic parachutes?

### Looking for a custom parachute to bring down your heavy rocket?

Chutes by Boe makes quality parachutes out of ripstop nylon gores and braided nylon cord. Highly efficient hemispherical parachutes are made from 12 gores. Mushroom parachutes are made from 4 gores, and are perfect for rockets with smaller parachute compartments, or they make great drogues. Send an email to [cowboes5@usfamily.net](mailto:cowboes5@usfamily.net) to get the latest pricing and an order form. Or chat with the Boe family at the next MASA launch!



# Chutes by Boe



# NARCON2008

looking back / PAYING FORWARD

A Weekend Devoted to Sport Rocketry

**NAR Convention 2008**

**MASA to Host NARCON in 2008**

**Mark your calendar for March 14-16, 2008**

For the second year in a row, MASA has been chosen by the NAR to host the annual National Association of Rocketry Convention, known as NARCON. NARCON 2008 will return to the Kahler Grand Hotel in Rochester, and is slated for March 14-16, 2008. Once again, MASA is pleased to announce that the convention will include a sport launch (weather permitting) hosted by Tripoli Southern Minnesota (TSM).

It is a great opportunity for MASA to host this national event, and plans are already underway to make it a fabulous event. Tentatively scheduled to appear as guest speakers are Vern and Gleda Estes, the original founders of the most recognized company in the hobby.

Join your fellow MASA members and attend NARCON 2008 and help celebrate 50 years of the NAR!

- ★ **Vendors**
- ★ **Seminars**
- ★ **Guest Speakers**
- ★ **Exhibits**
- ★ **Sport Launch**

For more information, visit:

[www.narcon2008.org](http://www.narcon2008.org)

Register Early and **SAVE!**

*The Kahler*  
· GRAND HOTEL ·



**Celebrating 50 Years of the NAR**

## 2007 Launch Windows

Subject to Change - Check MASA Website for updates

### MASA November Launch

(One week earlier than normal)

Saturday November 17 Time: 10:00 AM - 2:00 PM

Launch Site: TBD

### IMPORTANT LAUNCH NOTES:

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

All launches at the Nowthen Launch Site will have an FAA Waiver to 5500 ft MSL (about 4500' AGL)

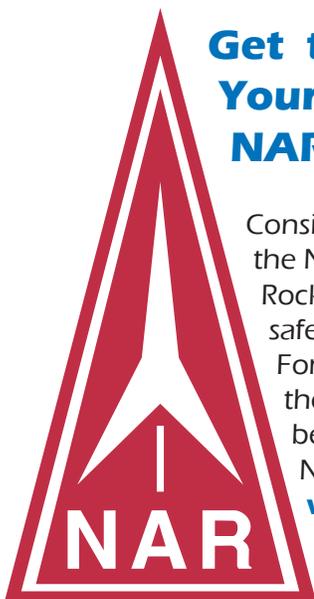
**2008 Launch Schedule  
to be Announced Soon**

The MASA Planet is the official newsletter of the Minnesota Amateur Spacemodeler Association. It is published bimonthly as a service to its members. MASA authors and photographers retain rights to their submissions, which are used by permission. Send submissions to [jeff.taylor@mn-rocketry.net](mailto:jeff.taylor@mn-rocketry.net) The Planet is available in color on MASA's web site: [www.masa-rocketry.org](http://www.masa-rocketry.org)

If your email address, U.S. Mail address, or phone number changes: Please send notice of your change to [masa@mn-rocketry.net](mailto:masa@mn-rocketry.net). Include your name and old and new addresses. We depend on email for communicating important information. When an email address starts "bouncing", we lose contact with you.

**Remember to check out**

**[www.masa-rocketry.org](http://www.masa-rocketry.org)**  
**for the latest Launch Dates, Meeting Dates  
and other Important News**



## Get the Most Out of Your Hobby - Join the NAR

Consider becoming a member of the NAR (National Association of Rocketry), and help promote the safety and future of our hobby. For more information about the NAR and on how to become a member, visit the NAR's web site at [www.nar.org](http://www.nar.org)

# MASA Planet

## 2007 Meeting Schedule

Subject to Change - Check MASA Website for updates

### MASA November Meeting

Thursday November 1 7:00 PM - 9:00 PM

### MASA December Holiday Party

Date: TBD

Location: TBD

### IMPORTANT MEETING NOTES:

Unless otherwise specified, all meetings shall be held at the Science Museum of Minnesota in St. Paul, Classrooms 11 & 12

**2008 Meeting Schedule  
to be Announced Soon**

## MASA Directory

Minnesota Amateur Spacemodeler Association  
Established January 1998  
Founding President: Russ Durkee  
NAR Section 576

### Club Website

[www.masa-rocketry.org](http://www.masa-rocketry.org)

### President

Mike Erpelding  
[fizzbin@meltel.net](mailto:fizzbin@meltel.net)

### Vice President and Webmaster

Alan Estenson  
[estenson@mn-rocketry.net](mailto:estenson@mn-rocketry.net)

### Secretary/Treasurer

Rick Vatsaas  
[rick@vatsaas.org](mailto:rick@vatsaas.org)

### Newsletter Editor

Jeff Taylor  
[jeff.taylor@mn-rocketry.net](mailto:jeff.taylor@mn-rocketry.net)



# MASA Planet

**For Your Benefit**

## **MESS Reports**

**By Ken Jarosch**

Watching several CATOs at the August 25, 2007 MASA launch brought back my experiences regarding this issue. During the 3 years of 1992 through 1994, Paul and I flew over 1050 flights without a CATO. These were largely 1/2A to D Estes motors. Then from 1994 to 1996 we were flying mostly D to F motors. This included Aerotech E15s and F25s in an Initiator starter set. During this time we had bought 40 of the Estes infamous 3-1/2" E15 motors, the predecessor of the E9s. Then reports started coming in about the high failure rates and Estes discontinued them. They may have even offered rebates. Since we had no problem we continued to fly them. Our numbered motors did not match the failed motors.

At that time we were flying with the Rocketeers out of Prescott, WI., East Bethel and finally at Cottage Grove thanks to Art Gibbens. Every time Paul and I put up a E15 Estes BP motor we would clear the immediate field. We flew all 40 under all conditions and still had no CATO experience. Then it happened at the April 1996 launch at Cottage Grove. While everyone was watching for my E15s to CATO, a D12-5 in a 24 mm Ranger homebrew blew it's the forward clay end. Flaming BP propellant came out the top of the Ranger at ignition while still on the pad. No damage to the rocket or the field. I filed my first report.

The second CATO came at the Blaine field at a cold October MASA launch. The rocket was the BroadSword with a D12-3 with a certain number set. The rocket took off the pad and at the end of the launch rod it CATOed like the earlier Ranger. A flaming wad came out the nose cone end, and the nozzle shot back and hit the blast deflector on my Estes Pro-pad. Inspection showed the rocket motor tube had been damaged just below the top centering ring. I used a spent D12-0 casing as patch for this damaged area. Good to this day. But the plastic head of the Pro-pad was smashed beyond repair or use.

This is when I first found out about thermal cycling. The motor had been with me during the summer and was used during a cold Oct. launch. So I dutifully filed my MESS Report which detailed all my damage to the rocket and the pad. But this time I sent a copy to Estes. Just the copy of the report, no sales receipt or requests for any refund. To my surprise 3 weeks later a package of D12-3s arrives at my door unannounced. I thought that was the end of it but in another 2 weeks I got another package from Estes with another replacement head for the Pro-pad. About a year later Estes discontinued the Pro-pad. I thought it was a good thing I got the replacement head.

Then one day a larger package came from Estes. I hadn't ordered anything so I was surprised. Inside were two more replacement heads. Obviously they were clearing out the parts and sent me some extras.

This is when I learned to send a copy of all MESS Reports to the manufacturer even if I wasn't asking for anything.

The third CATO was with a F21-4W in my Executioner at Tripoli at a summer launch at North Branch. The motor had just started to burn when the igniter must of clogged the nozzle. The pressure cracked the side of the casing and blew out the flame. I thought, "Let see if this sending a copy of the MESS Report works with Aerotech." Aerotech's response asked me to send the casing back without the propellant or the BP charge. When I did this I saw the fresh crack on the outside of the motor body from the front shoulder to the back shoulder. When I opened the casing you could see the crack on the inside. This was an old crack. About three weeks after I sent the empty casing back to Aerotech I, received a new 2 pack of F21-4Ws.

The fourth and most spectacular CATO and reward was once again at a cold October MASA launch. This time at the VFW field at Otsego. Once again it was a D12-3. It was a different pack but with the same number sequence. Also to complete the picture, it was my Super Big Bertha (BoardSword's brother) that ran the test. At ignition the rocket took off past the launch rod to a height of maybe 50 feet before it CATOed. This time instead of the flaming propellant coming out of either end it blew inside the Bertha. It blew the rocket in half save about an inch or so holding the parts together. Also, at the blown point the body tube caught fire and both parts burned on the way down. The Hindenberg style. Almost a total loss. I did recover the nose cone, fins and motor hook. This became my BBB Bigger-Better-Bertha.

Once again I detailed the MESS Report and sent a copy to Estes. True to form in three weeks a package of D12-3s arrived at my door. But the big surprise came about 2 weeks after that. UPS rang my door with a large package from Estes. When I opened the large box I found that Estes had replaced my Super Big Bertha with their new Executioner. A 2.6" D12 rocket for an old 2.6" D12 rocket.

Here's the thing: They not only replaced the motors which were old and thermal cycled but the rocket which was very old (1993) and no longer in production.

What I have learned is make out a detailed MESS Report and send the company a copy. You don't need a receipt and don't ask for anything. Oh by the way, just mention that you are a member of both a local and national rocket group (i.e., MASA & NAR or TRA-MN and TRA National). Use your member numbers.

**Continued on the Next Page...**



## MESS Reports Continued

Another thing I have learned is that I don't fly thermal cycled D12s at the cold fall launches. I use a new pack for that. The old ZZ-YY-XX motors were used up in the heat of July. No trouble since.

So if you have a CATO, send a detailed copy to the company and you may be surprised.

P.S. Aerotech once sent me a new pack of E18-4W motors and the parts to rebuild my Arreaux because I mentioned how it had been damaged by their bonus delays. An E18-7W(8,9,10,etc). Of course there is a discrepancy in their motor matrix under the model's recommended motors and the lift off weights in the motor listings. The E18-7W(8) should not be use for the weight of the Arreaux. Use the E18-4W instead. Go by the motor listing and not the model matrix.

Ken J.



**MASA is pleased to announce that LAUNCH Magazine will again be supporting NARCON in 2008. LAUNCH is donating 10 one-year subscriptions as door prizes AND donating ad space in the next two issues of LAUNCH! Thank You, LAUNCH Magazine!**

# MASA Planet

## September Meeting Minutes

By Alan Estenson

The September 2007 MASA meeting was held on the 6th at the Science Museum.

10 people attended the meeting.

The launch on August 25th had near-perfect weather and a great turn-out of MASA members, visitors, new members, and spectators. A total of 148 flights took to the skies. The theme was "multi-staging", and there were 17 multi-stage flights. These included six entries in the annual Comanche-3 drag race.

The next launch will be on September 22nd at Nowthen. The theme will be Science Fiction & Fantasy rockets.

The next meeting will be on October 4 at the Science Museum. Meeting topics (and volunteers) are needed for the October and November meetings!

The new September/October issue of the Planet is now available for download. This is new editor Jeff Taylor's second issue. Looks great, Jeff! Thank you! As always, Jeff welcomes your contributions for the Planet. The deadline submission date for the next issue is October 25.

**Continued on the Next Page...**

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# MASA Planet

## September Meeting Minutes Continued...

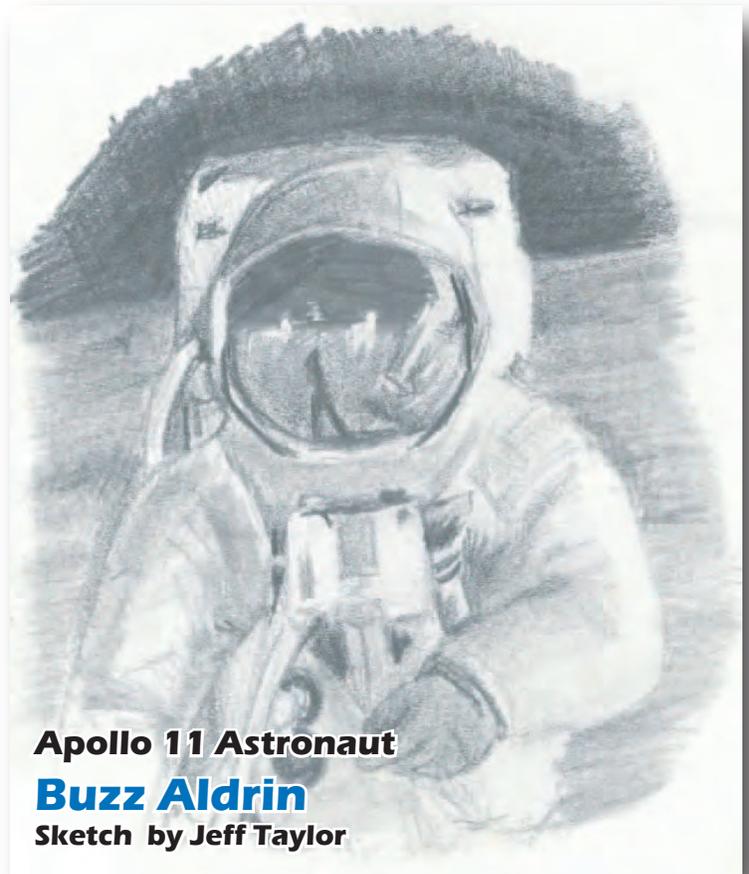
### Show -n- Tell

David Whitaker brought along his clone of the classic goony rocket "Zoom Broom" that he kitbashed from a Baby Bertha. Dave made his own decals for this rocket. Dave also showed us his 29mm Skyripper hybrid motor system. He used this system to fly his modified LOC Hi-Tech on an H78 hybrid motor at both the July and August MASA launches.

Buzz McDermott brought a newly finished "Der Goony Max" kitbashed from a Baby Bertha and finished using the decal set from Excelsior. He also showed us a Squirrel Works "Spacecruiser FFE" and a highly modified Sunward "Gravity Rider".

Caleb Boe brought his very neat modular rocket. This rocket project recently earned him a 4-H blue ribbon at the Minnesota State Fair. Way to go, Caleb!

Ted Cochran brought the lower portions of his Loc IV and Quantum Leap as examples of baffles and zipperless recovery methods.



**Apollo 11 Astronaut**  
**Buzz Aldrin**  
Sketch by Jeff Taylor

## October Meeting Minutes

By Alan Estenson

The October 2007 MASA meeting was held on the 4th at the Science Museum.

10 people attended the meeting.

It's now official. MASA will be hosting NARCON 2008 on March 14-16 in Rochester. Put it on your calendars and plan to attend! The web site will be [www.narcon2008.org](http://www.narcon2008.org) The launch on September 22 went well. It was a nice day although the breeze kept the overall number of flights down a bit.

The next launch will be on October 27 at the sod farm near Nowthen. The themes are "Halloween" and "Missiles of October". A Goblin drag race is planned.

NOTE - A volunteer or volunteers are needed to serve as launch coordinators (bring equipment to the launch and take care of activating the waiver.)

The next meeting will be on November 1. We may change the location of the meeting because there is a hockey game at the Xcel that night. Also, a topic is needed for this meeting. 2008 MASA officer nominations will open at this meeting.

Jeff welcomes your contributions for the Planet newsletter. The deadline submission date for the next issue is October 25.

There are several Outreach opportunities coming up the end of this month. Details have been posted to the mailing list.

Rick Vatsaas gave a treasurers report. There is currently \$357 in the treasury (not counting some money from NARCON 2007). There are currently 16 individual memberships, 20 family, and 4 junior.

### Show -n- Tell

Rick Vatsaas brought his Custom "Ion Pulsar" Ken Jarosch brought his Estes "Executioner" that he is currently rebuilding with a baffle and zipperless recovery.

### Sputnik

Through one of those wonderful coincidences, this meeting coincided with the 50th anniversary of the launching of Sputnik in 1957. To mark the occasion, Alan Estenson put together materials to build flying Sputnik rockets ("odd-rocs"). A number of those present at the meeting built Sputniks on the spot or took the parts home to build later. They were built from "Estes Industries Rocket Plan #15" for the "Sputnik-Too" (vintage 1964). [http://www.dars.org/jimz/eirp/eirp\\_15.tif](http://www.dars.org/jimz/eirp/eirp_15.tif) One change to the plan was to run the launch rod through the foam ball along the motor mount tube instead of gluing on an external launch lug. Look for some of these Sputniks to fly at upcoming launches!

Thanks to everyone who attended the meeting! See you next month.



# MASA Planet

## September Launch Report

By Alan Estenson

On Saturday, September 22nd, MASA held its ninth launch of the year. This launch was held at the sod farm near Nowthen. The weather was pretty nice albeit with an annoying breeze out of the SW.

The theme for the day was science fiction and fantasy rockets

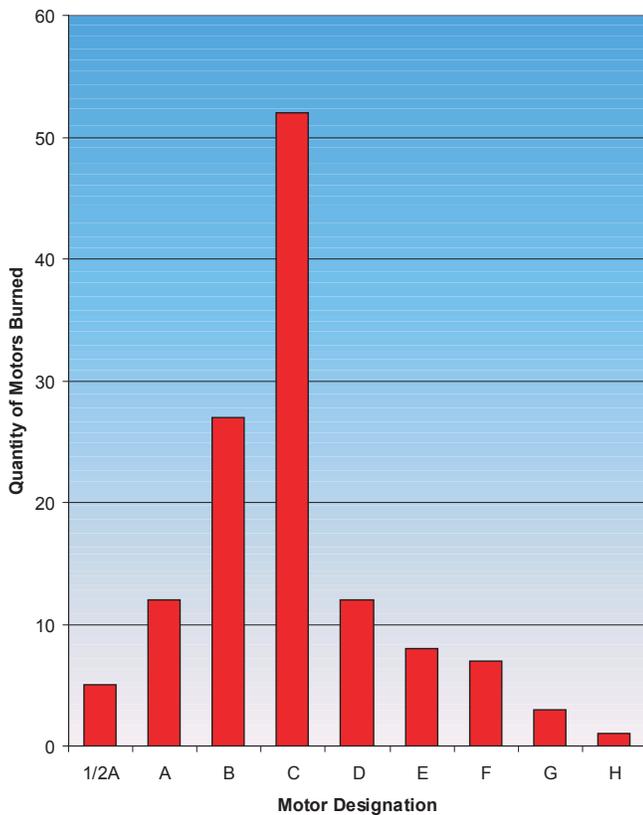
Thanks to the LCO/RSO volunteers: Alan Estenson, Jeff Taylor, Ken Jarosch, and David Whitaker.

Check out [www.masa-rocketry.org](http://www.masa-rocketry.org) to see what some MASA members had to say about the launch.

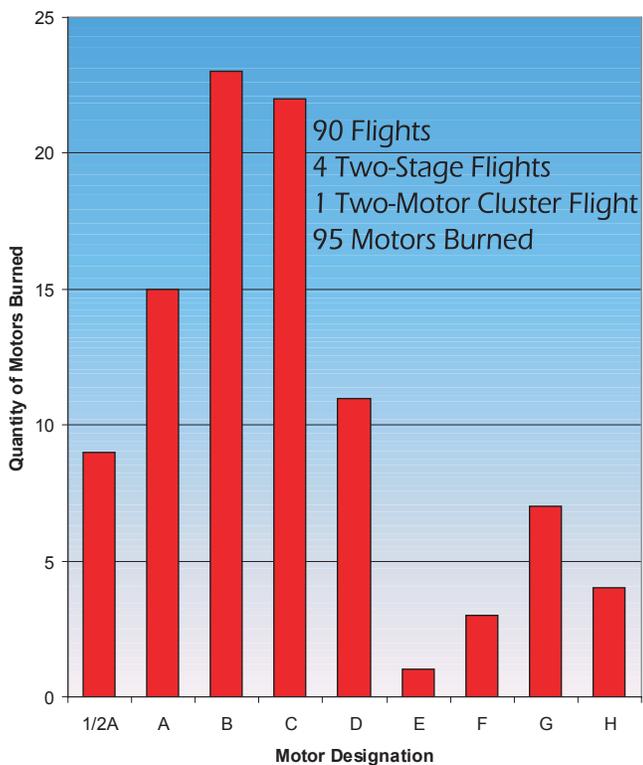


Newspaper clipping from [www.coalwoodwestvirginia.com](http://www.coalwoodwestvirginia.com)  
Sputnik graphic by Jeff Taylor

MASA Motor Consumption  
September 25, 2007 Club Launch



MASA Motor Consumption  
October 27, 2007 Club Launch



## October Launch Report

By Jeff Taylor

On Saturday, October 27th, MASA held its tenth launch of the year. This launch was held at the sod farm near Nowthen. The weather was predicted to be cold and windy, and forecasted to get worse as the day went on. Luckily for us, the weather man is sometimes wrong. It started out as a beautiful day with nearly no wind.

The theme for the day was planned to be "Halloween" and "Missiles of October". Unfortunately without Alan being there with his big I-powered "It's the Great Pumpkin Rocket, Charlie Brown", we kind of forgot that we had a theme for the day.

Alan was out of town, so Ted took care of the FAA paperwork and phone calls, and Jeff took care of getting the range equipment hauled out to the site.

Thanks to the LCO/RSO volunteers: Jeff Taylor, Ted Cochran, and David Whitaker.



# MASA Planet

## Glen Overby's October Launch Pictures...

David Whitaker Prepares his LOC HiTech to Launch on an H78 Hybrid



Altimeter-based Deployment Ejects Parachute at 500 Feet Above Ground



David's Hybrid Comes to Life



Ted Cochran's LOC IV on an H128W-M



Glen's "No Laughing Matter" Prepares to Launch on a Hybrid H124



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Coon Rapids, MN 55448

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