



ARE YOU READY FOR A CONTEST?

MASA Summer Regional Contest

**Dates: Saturday & Sunday, June 2 and 3
(rain dates June 9 and 10)**

Location: Nowthen Sod Fields, Google Maps Link

Contest Events:

- G Egg Loft Altitude w/ altimeters, C & T div
- D Egg Loft Altitude w/ altimeters, A & B div
- A Helicopter Duration
- B Boost Glide Duration
- C Streamer Duration
- Open Spot Landing
- Drag Race, C & T div
- Set Duration (30 seconds), A & B div

For all the details, see Page 2...

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The MASA Planet is available online at:
<http://www.masa-rocketry.org/planetonline.htm>

4TH ANNUAL MASA SUMMER REGIONAL CONTEST JUNE 2 AND 3, 2012

Events:

- G Egg Loft Altitude w/ altimeters, C & T div, WF 24
- D Egg Loft Altitude w/ altimeters, A & B div, WF 19
- A Helicopter Duration, WF 20
- B Boost Glide Duration, WF 19
- C Streamer Duration, WF 10
- Open Spot Landing, WF 4 **(If flying this event, it must be your FIRST contest flight of the weekend.)**
- Drag Race, C & T div, WF 2 **(Saturday ONLY)**
- Set Duration (30 seconds), A & B div, WF 8 **(If you compete in this event, you must make your official flight before flying any other event requiring timing.)**

Details:

Contest fee is \$5.00 per competitor. (Payable at the field when you register.) MASA members who are not NAR members are still welcome to enter and participate; please contact Mike if you have any questions.

Saturday

- **A contest range with central controller and pads will be set up. Contest range hours will be approximately 9am until 5pm. The Drag Race event will ONLY be flown on Saturday.**
- **A separate sport range will also be set up.** The sport range will be "misfire alley" - bring your own pad & controller. The waiver will NOT be active on Saturday. This limits sport flights to < 3.3 lb and no more than 125 grams of propellant.

Sunday

- **A contest range with central controller and pads will be set up. Contest range hours will be approximately 9am until 5pm.**
- **A separate sport range will also be set up.** The sport range will be "misfire alley" - bring your own pad & controller. The waiver will be activated on Sunday to allow high power flights. Our waiver allows flights to 4,500 feet AGL. Based on field size and distances from occupied buildings, the maximum practical flight altitude is 4,000 ft agl. Field size supports up to a J motor.

Contest flying has priority over sport flying on both days!

This contest will be conducted in accordance with the current U.S. Model Rocket Sporting Code and the NAR Safety Code. You may find the "Pink Book" online at <http://www.nar.org/pinkbook/>

Please contact Mike Erpelding, Contest Director, if you plan to enter the contest, or if you have any questions.

Mike Erpelding

NAR # 79922 HPR L2 — fizzbin@meltel.net — (320) 248-9907 [cell]

MASA
PLANET

The MASA Planet is published by members of the Minnesota Amateur Spacemodeler Association (MASA). It is a bi-monthly newsletter dedicated to the continuing education and entertainment of rocketeers throughout the world.

MASA is a large group (over 100 strong) of hobby rocketeers throughout Minnesota and parts of Wisconsin with monthly meetings and launches throughout the year.

Annual dues:

\$12 Family (up to 4)

\$10 Single (18+)

\$6 Single (<18)

Newsletter submissions should be made to the editor Kurt Knox. Email them to kurtknox@gmail.com












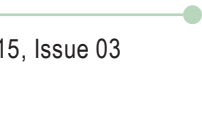


FAMILY FUN NIGHT

The May meeting was a great time had by all those who attended. On May 12th Alan Estenson hosted the MASA monthly meeting and gave it a bit of a twist. We started out the night with a little social and rocket building session for those who desired to build. Free kits were given to all kids who attended and I believe all took advantage of the offer and the build session. Squeezed into the build session was a very informal meeting where we discussed outreach events, regional contest details, kitbash kontest information, and a few other random topics. The night ended with a foray into Alan's other hobby, old coin-op arcade games. It was very obvious everyone enjoyed the pinball machines and various arcade games. Most required an actual quarter to be inserted, go figure... Tempest, Asteroids, Omega Race, and Lunar Lander, to name a few, brought back fond memories of the Stillwater Arcade for me. All in all it was a very Fun Family Night.



SPACE SHUTTLE TIMELINE

April 12, 1981	John Young and Robert Crippin pilot the space shuttle <i>Columbia</i> on the maiden flight of the Space Transport System (STS-1).	
Nov. 11, 1982	Space shuttle <i>Challenger</i> is launched.	
June 18–24, 1983	Sally Ride becomes the first American woman astronaut, on the STS-7 flight of <i>Challenger</i> .	
Aug. 30, 1983	The STS-8 <i>Challenger</i> flight introduces Guion S. Bluford, the first African-American astronaut to travel in space.	
Feb. 7, 1984	Astronauts Bruce McCandless and Robert Stewart make the first un-tethered space walks (with jet backpacks) on this <i>Challenger</i> flight.	
Aug. 30, 1984	First flight of space shuttle <i>Discovery</i> .	
Aug. 8, 1985	First flight of space shuttle <i>Atlantis</i> .	
Oct. 3–7, 1985	<i>Atlantis</i> deploys a classified satellite for the Department of Defense.	
Jan. 28, 1986	<i>Challenger</i> explodes 73 seconds into the flight (STS-51-L).	
Sept. 29–Oct. 3, 1988	The first shuttle flight after the <i>Challenger</i> disaster. <i>Discovery</i> launches a satellite.	
May 4, 1989	The <i>Magellan</i> Venus probe is launched from <i>Atlantis</i> , the first U.S. planetary mission in 11 years and the first launched from a shuttle.	
Oct. 18, 1989	<i>Atlantis</i> launches the Jupiter-bound <i>Galileo</i> spacecraft.	
April 24–29, 1990	<i>Discovery</i> mission launches the Hubble Space Telescope.	
May 2–16, 1992	<i>Endeavour's</i> maiden flight and the first 3-person spacewalk.	
Dec. 2–13, 1993	This <i>Endeavour</i> flight successfully repairs the optics on the ailing Hubble Space Telescope.	
Feb. 3–11, 1994	Sergei Krikalev becomes the first Russian cosmonaut on a U.S. shuttle mission.	
Feb. 3–11, 1995	Eileen Collins becomes the first woman pilot, flying <i>Discovery</i> past the Russian space station <i>Mir</i> .	
June 27–July 7, 1995	Space shuttle <i>Atlantis</i> docks with the Russian <i>Mir</i> space station.	
March 22–31, 1996	U.S. astronaut Shannon Lucid is dropped off by <i>Atlantis</i> for a 181-day mission on the <i>Mir</i> , setting a record for a woman in space.	
Oct. 29–Nov. 7, 1998	The first American to orbit the Earth, John Glenn, returns to space aboard the <i>Discovery</i> .	

Timeline continued on page 5...

SPACE SHUTTLE TIMELINE CONTINUED...

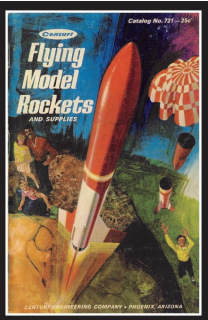
<p>Dec. 4–12, 1998</p>	<p><i>Endeavour</i> makes the first human flight to the International Space Station. The construction mission connects the Zarya and Unity modules.</p>	
<p>July 22–27, 1999</p>	<p>Col. Eileen Collins becomes the first woman to command a shuttle mission. <i>Columbia</i> launches the Chandra X-Ray Observatory.</p>	
<p>March 8–21, 2001</p>	<p>In the eighth shuttle mission to the International Space Station, <i>Discovery</i> picks up the Expedition One crew and drops off Expedition Two.</p>	
<p>March 1–12, 2002</p>	<p><i>Columbia</i> makes the fourth Hubble Space Telescope maintenance visit.</p>	
<p>Feb. 1, 2003</p>	<p>Fifteen minutes before completing its 28th mission (STS-107), <i>Columbia</i> breaks up with the loss of all seven crew members.</p>	
<p>July 26, 2005</p>	<p>Eileen Collins commands <i>Discovery</i> on the first shuttle flight since the <i>Columbia</i> disaster. Despite the safety measures, in an incident similar to that which caused the <i>Columbia</i> disaster, some foam insulation broke off the external tank after takeoff. <i>Discovery</i> continues its mission, but NASA grounds any further shuttle flights indefinitely.</p>	
<p>July 4, 2006</p>	<p>The <i>Discovery</i> takes off for the ISS on the first Fourth of July liftoff, despite reservations by the chief safety officer and chief engineer concerning the same foam insulation problem that occurred in the previous two flights.</p>	
<p>August 8, 2007</p>	<p><i>Endeavour</i> takes off for the ISS carrying the first teacher to ever visit space, Barbara Morgan.</p>	
<p>October 23, 2007</p>	<p><i>Discovery</i> launches into space for a 14-day mission to the ISS carrying a new module that will expand the living space in the orbiting laboratory.</p>	
<p>March 26, 2008</p>	<p><i>Endeavour</i> safely returns from its 16-day mission to the ISS. The <i>Endeavour</i> delivered the first section of the Japanese Kibo laboratory and a Canadian Space Agency robot called Dextre. Every international partner has now contributed a major part to the ISS.</p>	
<p>February 24, 2011</p>	<p><i>Discovery</i> launches on its final mission, STS-133, and docks with the ISS. The mission transported several items to the space station, including the Permanent Multipurpose Module <i>Leonardo</i>, which was left permanently docked to one of the station's ports.</p>	
<p>July 21, 2011</p>	<p>When the space shuttle <i>Atlantis</i> rolled into the Kennedy Space Center on July 21, NASA officially retired its Space Shuttle program after 30 years of service.</p>	
<p>April 17, 2012</p>	<p>The shuttle <i>Discovery</i> flies over Washington DC on its way to the Smithsonian where it will be placed on permanent display.</p>	

Everyone is invited to participate!

The goal of kitbashing is to build a flyable rocket from the parts contained in a particular rocket kit, but you use your imagination to create a rocket that's different from the one intended to be built from that kit.

****KIT****

The donor kit chosen for this year's kitbash is the Quest "Force 5".



****KONTEST****

Your mission is to seek inspiration for your kitbash from the 1972 Centuri catalog.

<http://www.ninfinger.org/rockets/nostalgia/72cencat.html>

Exactly what you do is up to you! You just need to draw inspiration for your kitbash from something in the 1972 Centuri catalog.

Links to plans and such can be found at
<http://www.spacemodeling.org/JimZ/centuri.htm>
<http://plans.rocketshoppe.com/centuri.htm>

****RULES****

- You may use or not use any and all contents of the kit, including the packaging, at your discretion.
- You may NOT substitute or add any balsa wood.
- You may swap out the motor mount tube for one of equal length if you'd prefer to build for a 24mm motor instead of 18mm.
- You may add internal material to the nose cone if necessary to ensure stability of your design.
- You may use any paint and decals that you desire to finish your rocket.
- You may use a different shock cord than what is included in the kit.
- You may add a snap swivel to your parachute.
- You may not add or substitute any other parts.



****PICNIC****

If you have your Kitbash creation complete and bring it to the club picnic in July, you'll be eligible for a special prize drawing. Extra bonus points if you fly it at the picnic!

Alan

Key points from the March MASA meeting include:

- Art Gibbens - "Why the answers are correct" on the level 2 exam. Art led a discussion on the Level 2 high power written test. The pool of all possible questions along with on-line practice tests may be found on the NAR web site. <http://www.nar.org/hpcert/NARhprintro.html>
- Safety Review, RSO/LCO/Launch Controller Training.
- Neal gave a short presentation on safety practices at MASA launches.
- Alan has updated the RSO/LCO checklists. All MASA members (not just RSO & LCO's) should be familiar with these. The PDF is available for download [here](#).

Range & flight safety is everyone's responsibility!

2012 CURRENT MASA ROSTER - 109 MEMBERS

Ross	Bartels	Jack	Harcus	Adrian	Larson	Brianna	Tamez
Wesley	Bartels	Meghan	Harcus	Stuart	Lenz	Maria	Tamez
Rohn	Blake	Mike	Harcus	Carol	Marple	Alyssa	Taylor
Alex	Brown	William	Harcus	Buzz	McDermott	Jeff	Taylor
Luke	Brown	Andy	Heren	Ted	Meissner	McKenna	Taylor
Thomas	Brown	Neal	Higgins	David	Miller	Brian	Uhlenkamp
Allison	Carpenter	Alissa	Hoyme	Evie	Miller	Julia	Uhlenkamp
Elliot	Carpenter	Julie	Hoyme	Bob	Moyle	Lukas	Uhlenkamp
Laura	Carpenter	Ken	Hoyme	Lance	Murphy	Natalie	Uhlenkamp
Todd	Carpenter	Kirsten	Hoyme	Michael	Murphy	Cheryl	Vatsaas
Ted	Cochran	Steve	Hum	Scott	Murphy	Christian	Vatsaas
Jason	Colt	William	Inboden Jr	Glen	Overby	Ingrid	Vatsaas
Eleanor	Craig	Kenneth	Jarosch	Jason	Pokorny	Rick	Vatsaas
Heather	Craig	Abby	Juntunen	Nic	Rosenau	Anand	Vyas
Lindsay	Craig	Andy	Juntunen	Seamus	Rosenau-Blake	Aimee	Whitaker
Oliver	Craig	Dani	Juntunen	Chuck	Ross	Austin	Whitaker
Ben	Ericksen	Karen	Juntunen	Ian	Ross	Cynthia	Whitaker
Alan	Estenson	Abbie	Karsten	Audra	Rudys	David	Whitaker
Michael	Farrell	Jeff	Karsten	Cathy	Schwartz	Ron	Wirth
Chris	Feld	Kathie	Karsten	Joy	Schwartz		
Jace	Flansburg	Mike	Karsten	Larry	Schwartz		
Jeff	Flansburg	Patrick	Karsten	Ryan	Schwartz		
Jennifer	Flansburg	Peightyn	Karsten	Dwayne	Shmel		
Ryan	Foss	Abby	King	Elizabeth	Shmel		
David	Gensler	Eric	King	Richard	Shmel		
Art	Gibbens	Ray	King	Susan	Shmel		
Hannah	Gibbens	Sharon	King	Anna	Stone		
Philip	Gibbens	Kirk	Klopfenstein	Elliott	Stone		
Renée	Gibbens	Kurt	Knox	Jason	Stone		
Gregg	Harcus	Lucas	Knox	LilyAnna	Stone		



A Motor List

A3T-4	Estes
A6-4	Quest
A6-4	Quest
A8-0	Estes
A8-3,5	Estes
A10T-0	Estes
A10T-3,P	Estes

C Motor List

C6-0	Quest
C6-0,3,5,7	Estes
C6-3,5	Quest
C6-3,5	Quest
C11-0,7	Estes
C11-3,5	Estes



G Motor List

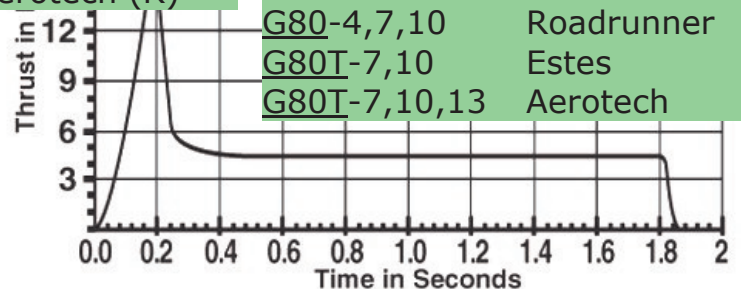
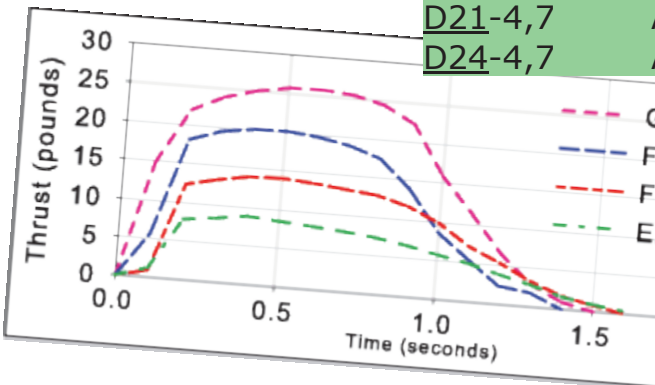
G12-RC	Aerotech (R)
(HP) G33-5,7	Aerotech (R)
G38FJ-4,7	Aerotech
G40W-4,7	Estes
G40W-4,7	PML
G40W-4,7,10	Aerotech
G53FJ-5,7,10	Aerotech (R)
G54-6,10,14	Aerotech (R)
G64-4,8,10	Aerotech (R)
G69N-P	Aerotech (R)
G71R-4,7,10	Aerotech (R)
G76G-4,7,10	Aerotech (R)
G77R-4,7,10	Aerotech
G78G-4,7,10	Aerotech
G79W-4,7,10	Aerotech
G80T-4,7	PML
G80-4,7,10	Aerotech
G80-4,7,10	Roadrunner
G80T-7,10	Estes
G80T-7,10,13	Aerotech

D Motor List

D5-4,6	Quest
D5-P	Quest
D7-RC	Aerotech (R)
D9-4,7	Aerotech (R)
D10-3,5,7	Aerotech
D10-3,5,7	Apogee
D11-P	Estes
D12-0,3,5,7	Estes
D13-4,7,10	Aerotech (R)
D15-4,6	Aerotech (R)
D21-4,7	Aerotech
D24-4,7	Aerotech (R)

B Motor List

B4-2,4	Estes
B6-0	Estes
B6-0,4	Quest
B6-2	Quest
B6-2,4,6	Estes



Reloadable motors are denoted with (R) after manufacturer.

Contest Strategies for Casual Competitors. - Presentation by Buzz McDermott

Buzz led us through his presentation covering the events planned for the MASA Summer Regional. He also brought a number of example contest rockets. Thanks Buzz!

You can download Buzz's presentation as a PDF file:
[Contest Strategies for Casual Competitors - McDermott.pdf](#)

Host Section

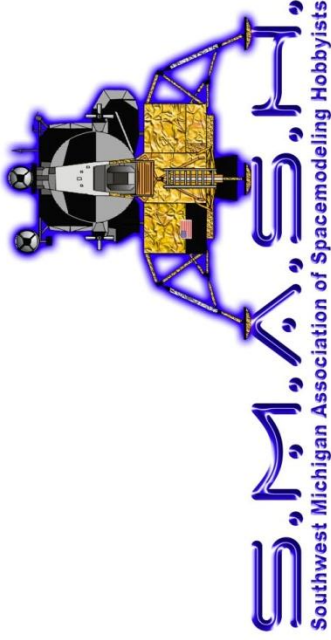
Southwest Michigan Association of Spacemodeling Hobbyists (SMASH) section #500 of the National Association of Rocketry (NAR). Founded in 1988 the section has promoted rocketry to the community making rocketry a fun, safe, and educational hobby for the whole family.



SMASH & MMAR members are from all over the Midwest. The members of SMASH would like to invite you to NARAM-54 in 2012.

Model Rocketry is a safe, educational and fun hobby

NARAM-54 made possible by these sections:



www.smashrocketry.org

www.mmarocket.com



This event is sanctioned by the National Association of Rocketry

www.nar.org

NARAM-54

Celebrating the 50th Anniversary of John Glenn's Friendship 7 Flight

July 28, 2012 to August 3, 2012



Contest Director

Contact information:

Pam Gilmore

Muskegon, Michigan

psgilmore@gmail.com

231-755-0652



Apply address label here.



Mahtomedi High School students spent months using software and high-tech tools to design, construct and test a rocket. The adviser and team members on hand for a photo are, from left, teacher Bryan Farmer and students Frans Elliott, Spencer Legred, Camden Wallraff, James Tradup and Jacob Kiel. The learning experience brought rocket club members to the Team America Rocketry Challenge national finals near Washington, D.C. (Pioneer Press: Jean Pieri)

Congrats on making it to the finals guys!!!

For the full Pioneer Press article you can click on this [link](#).

2012 TARC UPDATE

These are excerpts from the Pioneer Press article on the Mahtomedi H.S. TARC Team...

Eight Mahtomedi High School students spent months designing, building, testing and rejiggering a rocket built to launch two raw eggs 800 feet into the air and bring them back to Earth without a crack.

They did just that, qualifying for the Team America Rocketry Challenge national finals near Washington, D.C., earlier this month. About 100 teams across the nation qualified for the world's largest rocket contest -- Mahtomedi was the only Minnesota team to make it.

The team, unfortunately, didn't make it to the final round at nationals. One of its eggs broke during the flight. But that didn't dampen the students' enthusiasm for what they had achieved.

During one practice run, a motor blew up and part of the rocket needed to be rebuilt. The bottom part of the rocket got caught in a power line during another run. Luckily, a Mahtomedi student found it in the highway and brought it back.