

The SoAR Spot

VOLUME 1, ISSUE 3

DECEMBER 1997

Newsletter Editor: Brad Van Duser

SoAR's First Annual Quadrathon a SUCCESS!

Submitted by: Tom Winterbottom, NAR# 71103, SoAR# 002

Southern Area Rocketry, NAR section #571, now has 30 paid family memberships. Still haven't joined? Send in your application now!



What is the MWMSSC ?

It's the second annual Mick Wilkins Memorial Sport Scale Championships, co-sponsored with our sister HPR club, TARA. See page 2 for details.

Southern Area Rocketry's First Annual Quadrathon was held on November 16, 1997. This was our club's first competition meet even though it was not NAR sanctioned and no NAR points were earned. The Quadrathon event is composed of four events in one, A Altitude, B Parachute/Streamer Duration, B Spot Landing, and C Payload Duration. The payloads used were expended "D" motor cases filled with dry sand and epoxy. All payloads were constructed locally and weighed within 1 gram of each other.

The reason it is called a Quadrathon is this: One rocket - FOUR events. The winner will be the person that has made the best all around rocket for all events. The only catch is, you break it, you're out. You lose it, you're out. No repairs are allowed. The only thing that may be changed is the recovery system. The best model for this event is probably a scratch built, very light, but very tough payload model. But in our event, the Estes Nova Payloader was a popular choice for most of the participants.

Now for our participants. Greg Burke with a scratch built model called "Hang Time". Harry Holmes had a Estes Flash, Jay Roberts, an old Estes Camroc Carrier, Phill Nelson had an Estes Rampage, Joe Lalli with an Estes Corkscrew. Brad



CONGRATULATIONS TO OUR QUADRATHON WINNERS (LEFT TO RIGHT): HARRY HOLMES (2ND PLACE), GREG BURKE (1ST PLACE), AND JOE LALLI (3RD PLACE).

Van Duser, Doyle Tatum, Nelson Edwards, Joshua Holmes, David Fountain, and Allen Edwards were all flying the Estes Nova Payloader.

The first event was A Altitude, tracked by 2 tracking stations. First place was Greg Burke at 162.5 meters. Second place, Joe Lalli with 108.5 meters, and third place went to Harry Holmes at 89 meters. The Second event was B Parachute/Streamer Duration. Because of the winds, the members decided that either could be used. I guess its better not to lose your rocket in high winds when you have 2 more events to fly. First place, Greg Burke, 33.5 seconds. Second place,

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THE COMPETITORS AFTER THE COMPLETION OF THE FOUR QUADRATHON EVENTS.

SoAR's First Annual Quadrathon a SUCCESS!

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Joe Lalli, 27.5 seconds, and third place, Harry Holmes, 24 seconds. The third event was spot landing. An Estes Alpha with an A motor was launched. Wherever it landed marked the spot and a bucket was placed there. The closest to the bucket wins (mostly luck). First place, Harry Holmes with 17 FEET! (He must have a lot of luck). Second place, Jay Roberts, 62 feet. Third place, Phill Nelson, 68 feet. Lastly, the C Payload duration. First Place, Greg Burke, 34 seconds. Second went to Harry Holmes, 30 seconds and finally third went to Joe Lailli, 24 seconds.

Overall winners were First Place, Greg Burke with "Hang time," Harry Holmes was second overall with the Flash, and Joe Lalli was third overall with the Corkscrew. Thanks to Doyle Tatum for radio communications and for helping with the recording of scores. [Editor's note: Greg has graciously provided plans for building your own version of his "Hang Time" competition rocket. See the plans elsewhere in this edition of the newsletter.]

Prizes were donated by HobbyTown USA of Kennesaw, Top Flite and Pratt Hobbies. Prizes were awarded for all phases of competition. All in all a fun event and a learning experience for everyone. Stay tuned for the Second Annual Quadrathon coming November 1998!



SoAR's Annual Meeting Planned for Saturday, January 31

Planning for Mick Wilkins Memorial Sport Scale Championships to be Major Topic

It is time for our NAR section to have its first annual meeting since the group's inception last year. Saturday, January 31, has been set aside for this purpose. It is important that every member of SoAR attend to voice their opinion for the year's upcoming events. Visitors are welcome as always.

One very important topic of discussion will be the co-sponsorship of the second annual Mick Wilkins Sport Scale competition to be held in March. SoAR would like to run the MWMSSC to gain credibility as a viable site for a national sport launch in 1999. Running a meet as large as the Mick Wilkins takes the effort of all members - not just the 4 or 5 who normally do most of the work. Being selected to run the last NAR national sport launch of the century would be a blast!



The annual meeting will be held at 3:00 in our normal meeting room at Hobbytown USA in Kennesaw. Please mark your calendar now and join us in January to plan for the upcoming year.

PRODUCT REVIEW

Calipers are measuring devices used to obtain accurate dimensions like thicknesses of fins or body tube walls. The dictionary says "an instrument with two adjustable legs, used in determining diameters or the like".

You can find these at hardware stores for various prices. The common is a vernier caliper for about \$20 although you may also find a small metallic version for \$7 or \$8. The \$20 version has a sliding and dial scale that in combination read out the measurements in inches (0.148") or millimeters (3 mm).

The caliper is useful in determining accurate measurements for scratch building and designing rocket models.

You can use the dimensions to plug into computer programs, such as RocketSim, which in turn can print out fin and centering ring patterns.

For the perfectionist, there is also a digital caliper for around \$90 (someone else will have to let me know how that version works!).

Submitted by: Doyle Tatum

A Christmas Buying Guide

Well, it's that time of year again. I know that you're probably trying to think of that gift to give your family rocketeer or maybe how to spend grandma's gift of cash! I'll try to give you some helpful direction here. I'll begin with the local Atlanta shopping area:

For the beginners, you can use your SoAR membership discount to get 10% off an Estes Starter Set at Hobbytown USA on Barrett Parkway in Kennesaw. The kit comes with one or two rockets, launch pad and controller, motors and a few accessories to get them going. Toy's R' Us has a nice selection of starter kits and if you can find them at Wal-Mart, the price will be exceptional.

For the novice builders, Hobbytown, B & B Sales (Snellville), Wal-Mart, K-Mart, Michael's and the local hobby stores all carry the basic Estes kits. An Estes Mosquito always makes a great stocking stuffer. At B& B and Hobbytown you can also find some Custom and Quest Rocket kits.

For the medium to high powered rockets (and motors) for obviously the more advanced rocket scientists on your list, local shopping will be limited to either the Kennesaw Hobbytown or B & B Sales. They both carry Aerotech, Launch Pad and North Coast Rocketry line of rocketry supplies. B&B has a wide variety of LOC rocket kits as well.

I pride my tools and workshop as much as my rockets, which will find me in Sears or Home Depot often. Sears often has reasonable prices on both high quality hand and power tools. I just purchased the Craftsman 16" Scroll Saw (\$175.00) which sits nicely on the bench top and finds a lot of use

Submitted by: Doyle Tatum, SoAR #006, NAR #70025

cutting centering rings, fins and such. Don't get me into a Home Depot (I'll spend all day), but I recently jotted down a few suggestions for this article.

They carry the Scott "Rags in a Box" (very handy) for \$8.98 as well as a variety of latex gloves, paint brushes, etc. I also saw a 1.5HP, 1-Gallon Shop Vac for \$28.81. Black and Decker 1/4 Sheet Finish Sander, handy for those larger rocket sanding jobs was \$29.91. I noticed a Folding Sawhorse for \$19.97, which I know some of you could turn into a nice launch pad! Among tons of other possibilities, they have a little Safety Strobe (I think your supposed to wear it when walking at night and such) that could possibly be adjusted to fly into the dark night sky at our January night launch. *[Editors' note: See Jim Skeen's write-up later in this newsletter for this very topic.]*

Before I get off the subject of Tools and Supplies there are two mail order places I'd like to mention. Micro-Mark has a wide selection of "Micro" tools - most are suited for our rocket building needs. Trendlines deals with more of the wood working community but they also have great prices and variety. A friendly warning if you choose to call the numbers below and order or request a catalog - they'll both send you monthly (sometimes more) mailings - which I look at as a blessing but I thought you should know.

Finally, let's get to rockets and motors by mail order. Note: If you order motors they will be shipped US Mail which always takes a couple of weeks). If your web active, from our home page you can link to Rocketry Online who has an extensive Vendor listing. Here are only a few that I have dealt with successfully in the past (there are obviously a huge number of other choices):

- ◆ Discount Rocketry carries Estes, Aerotech, Boyce Aerospace, Cosmodrome, Custom, Edmonds, Launch Pad, LOC, North Coast, NCR Competition, Quest, Rocket R&D, Seattle Rockets,

(Continued on page 4)



Two types of analog calipers.

A Christmas Buying Guide

(Continued from page 3)

Thoy, Vaughn Brothers and the Saturn Press Books (which would also make nice gifts). The prices are very reasonable and when I spoke with them, on the phone, they wanted me to mention their 40% off special on selected Estes Starter kits (through Dec 31, 1997) and the fact that they do offer a monthly special on their Website.

- ◆ Belleville Wholesale Hobbies has Estes and North Coast Rocketry at 30% off list price and also carries a discontinued list (Estes, Custom, MRC, etc.) at an incredible 40% off the original list price.
- ◆ I've never purchased anything from Rocket Science but this is what our President, Greg Burke had to say: "Rocket Science does give good service. Larry also doesn't stick you when it come to shipping, he charges by how much it weighs, not by how much you spend like most vendors. He also is available all the time to answer all of those pesky questions that 'newbies' always have. Rocket Science doesn't just do High Power, he covers just about everything in rocketry. He ship's your order right away if he has what you want in stock. He donated the president's award. He is was also the only vendor to come to every TARA launch. Without him they couldn't even have a launch as he loaned them the pads. Larry deserves the recognition and he doesn't make me feel like an idiot when I ask him a question."
- ◆ Apogee Components has some nice gift ideas. The Heli-Roc Kit, Whirl-A-Tron Conversion kit, Deltie Boost Glider and Ecee Boost Glider, among other original kits by Tim Van Milligan. He also makes RockSim, a rocket design software package, and high performance Model Rocket Motors (both 10.5 mm and 13-29 mm). Rounding out his stock is a nice supply of technical bulletins, some very reasonable prices and great customer service.
- ◆ Starflight Industries often come to Ft. Valley launches and carry a wide variety of manufacturers including Public Missiles and Aerotech.
- ◆ Totally Tubular carries Model Rocket tubing and couplers in bulk. White coated kraft, 30" lengths, many sizes 1/4" up. When your designing your own rockets, it's a great resource. Jim Fackert wanted me to let you know that he should have a winter builder's special to announce in a couple of weeks.
- ◆ Finally, I just purchased a variety of parts from Giant Leap Rocketry to scratch build my level 1 certification rocket. He has very reasonable prices, a good selection and great customer service.

For the most up to date list visit the SoAR Website - <http://members.tripod.com/~SOAR1>, and check out the "Where to Buy" and "Links" sections.

I'm trying to find new sources all the time, so if you buy from others, please let me hear your thoughts and experiences either at a launch or by email - doylex@mindspring.com - I'll list them in my Birthday Buyers Guide or Christmas 1998 Buyers guide - Who knows???

Happy Holidays –
Doyle

ROCKET "TIPS"

For any new batch of epoxy, test mix a batch and leave the mixing tool in it (I use a toothpick).

Check or verify the set strength after the correct cure time. This will prevent the headache I had with a bunch of "dud" epoxy inside my new AeroTech Tomahawk!

- Jim Skeen

Popsicle sticks are excellent for stirring and applying two-part epoxy.

Don't eat that many popsicles? Michaels, and probably other craft stores, carries a box of 1000 for around \$3.00.

- Doyle Tatum

Hobbytown, USA Kennesaw - 770-426-8800
B & B Sales, Snellville - 770-972-2328
Micro-Mark - 1-800-225-1066
Trend-lines - 1-800-877-7899
Discount Rocketry - 1-760-432-9626
Belleville Wholesale Hobbies - 1-618-234-5989
Rocket Science - 1-800-221-7205
Apogee Components - 1-719-548-5075
Starflight Industries - 1-561-753-3658
Totally Tubular - 1-810-231-9546 ext. 215
Giant Leap Rocketry - 1-504-769-6040

October Launch Report

Submitted by: Greg Burke, NAR# 65584, SoAR# 001

October 19th dawned cold and breezy, but dry. Weather forecasts for the weekend had made it look like this would've been SoAR's first launch cancellation. It's a good thing the forecasters were wrong - what a beautiful day for flying. Everybody else thought so as well. Twenty fliers showed up and put 116 models into the air. We used 124 motors at this launch; 17 mini's; 15 A's; 21 B's; 39 C's; 21 D's; 5 E's; 2 F's; and 4 G's. As usual we held our most flights contest for our members. Joshua Holmes Flew 16 models, good enough to win an Estes Venus Probe. Congrats'.

There were a lot of great flights at this launch; Lindsay Roberts flew an Estes Alpha on a B-6; Jay Roberts (her dad) flew a classic Estes Mars Lander on a C-6; The Pfenninger family flew an Estes Space Shuttle on a C-5; Andrew Barnes with an Estes Aerosat on a C-6; Reagan

Yates with an Estes Mean Machine on an Aerotech E-15; Joe Lalli with an Estes Astrocarn on a C-6; Anthony Viera with an Estes Quark on a A-10; Charlie Mix with an Estes X-Wing on a C-6; Joshua Holmes with an Estes Broadsword on a D-12; Jim Skeen with an Estes Thunderhawk with an A-8.

A bit of a break in the action occurred when Harry Holmes flew a couple of NARTREK flights for his certification in the bronze level. Both flights were successful and entertaining. Everybody on the range had to help track these very high flights.

Back to the flying action. More great flights were put in by Brad Van Duser with a scratch built 3" diameter model on a G40; Brad Mix with a scratch built Maverick on a G80; Tommy Mix with an Estes Tomahawk on a 1/2 A; Mark Johnson with

a Launch Pad Kormorant on an E-15; Jonathan Linn with an Estes Python on a D-12; Ray Beerman with an Estes Bullpup on a C-6; Joe Bradley with an Estes Spitfire on a B-4; Greg Burke with a 3x scale-up of a Goblin on a G80; Nelson Edwards with a Estes Fatboy on a C-6; and David Fountain Jr. with a Loc/precision Vulcanite on a G40.

This was an excellent launch. Those who missed it, missed it!! Many thanks to all those who helped out with the launch including Jim Skeen and Brad Van Duser for helping Greg Burke with the LCO duties. Southern Area Rocketry (SoAR) flies in Cartersville, GA, the third Sunday of each month. For more information page Greg Burke at 404.646.6060 or e-mail at soar571@aol.com or Tom Winterbottom at 770.429.3592 or e-mail at Twinter374@aol.com.

SOAR Membership Application

Membership fee is \$20 per year for an individual or family

Name _____ Age _____

Address _____ City _____ Zip _____

Phone _____ Email _____

NAR or TRA # _____

Are you interested in joining NAR? Yes No

What are your interests in rocketry? (Please check all that apply)

- | | | |
|---|--|---|
| <input type="checkbox"/> Altitude | <input type="checkbox"/> Competition | <input type="checkbox"/> Electronics |
| <input type="checkbox"/> Ground Support | <input type="checkbox"/> High Power | <input type="checkbox"/> Low Power |
| <input type="checkbox"/> Payload | <input type="checkbox"/> Photography | <input type="checkbox"/> Scale modeling |
| <input type="checkbox"/> Recovery Systems | <input type="checkbox"/> Plastic model conversions | |

Membership includes a 10% discount at HOBBYTOWN and National Hobby on rocket related items, a quarterly newsletter and free or reduced prices on launch fees. Send application with check made payable to:

Tom Winterbottom
16 Rubie Lane
Cartersville, GA 30120

The President Speaks



Well everyone, it's that time of year again. The holiday season. Loved by most, hated by many.

It's a time of happiness and excitement. It's also a time for tragedy. I drove a truck over the road for several years. I have seen more than my fair share of gruesome accidents. These accidents are always more frequent this time of year. Everybody's running around looking for that perfect gift. Some people are in such a rush that they don't pay attention to what's going on around them. It's these people, who are unaware of their surroundings. Unaware of the child stepping off of the curb and into the road. In a split second, it's over.

Please, all of you, be careful out there. When you travel to and from a launch or in your day to day travels, remember, you have a family who would like to have you back. We want to see you all again in January.

On the lighter side of things, we have a busy year ahead of us. We have five "special events" scheduled this year as well as our regular sport launches. There are also four meetings scheduled, and more may be added as needed.

The first event of the year will be a Night Launch!! We're keeping the range open to about 8pm at our January launch. For guidelines about the launch or plans to build a "nite system" give me a call. We are hosting two scale launches this year. One in FT. Valley with TARA, and one on our field. The fourth event will be SOM-4 (more than likely), in Ft. Valley in September. The fifth event will be the 2nd annual Quadrathon. It went so well the first time, it has to be done again.

If you have any ideas for a them at a launch, or topic at a meeting, speak up and be heard. We'll listen. Anyhow, I'm done rambling. Happy Holidays everyone, see you in January.



OCTOBER LAUNCH PHOTOS: ANDREW BARNES WITH HIS ESTES ASTROSAT (UPPER TOP RIGHT), REAGAN YATES' ESTES MEAN MACHINE ON AN E-15 (LOWER TOP RIGHT).

MORE OCTOBER PHOTOS: (ABOVE, LEFT TO RIGHT) LINDSAY AND JAY ROBERTS RACKING UP THEIR ROCKETS, JOE LALLI'S ESTES ASTROSAT IN FLIGHT, THE PFENNIGER FAMILY'S SPACE SHUTTLE IN FLIGHT, AND (LOWER LEFT) DAVE FOUNTAIN'S LOC LEGACY ON A F-20.

BUILDING A LED STROBE FOR NIGHT LAUNCHES

PARTS LIST

- 2 ea. "Safety Strobe" lights,
Home Depot #714-838
- 1 ea. Lithium Battery holder,
Radio Shack #270-430
- 1 ea. Lithium Battery (# 2032)
Radio Shack #23-162
- Duct Tape, approximately 6 inches
- 24 awg wire (stranded), 12 inches red,
6 inches black.
- Aluminum Heater vent tape (optional,
reflector material)

BACKGROUND

The "safety strobe" comes in a self contained housing 2" in diameter, having a front reflector lens and a rear "backplane". The backplane contains a clip for attachment to clothing, etc. and a on/off pushbutton. The internals of the unit contain two 1.5 volt watch batteries and the circuit board / LED unit.

The final circuit board dimensions are approximately 1-1/2" x 3/4".

The final total length should be approximately 2.5 inches. The diameter of the components allows it to be installed in a BT-50 clear payload section.

CONSTRUCTION

1. Remove the front reflector lens per package directions.
2. Mark the circuit board with a permanent marker as to where + and - voltages are applied to the board. With my units, the backplane was labeled with + and - above the watch batteries.

Use extra caution here if observing only the installed batteries !! Polarity must be correct.

3. Remove the screw holding the bat-

teries in place, battery holder and batteries. Remove the two screws holding the circuit board in place.

4. With an approximate 40 watt soldering iron, remove the two battery clips from the circuit board. Use caution here, as excessive heat will kill the LED / timer circuits on the board.

5. Cut two pieces of red wire 3-1/4" long. Cut two pieces of black wire 3" long. Strip one end of each approximately 3/16" from end.

6. Solder one of the red wires to the + terminal found in step #3 above. Solder one of the black wires to the - (minus) terminal found above. Repeat for 2nd unit.

7. "Dress" the positive lead back around so that it points out the same end as the negative (black) lead. Use superglue as needed to secure in place on board.

8. Cut and apply a strip of duct tape to both sides of the unit.

9. Optional step: Cut and apply a strip of aluminum heater vent tape to the "top" of the circuit board. "Dress" around the LED as needed to act as a reflector.

10. Splice the two black wires together, enabling connection to the single - lead on the battery holder. The holder contains two connections for the + lead. Solder the wires to the battery holder.

11. Insulate the "front" of the battery holder (the side with the clip) after installation of battery.

NOTE: the strobe units will begin to flash when the battery is inserted, turn off by pressing the on/off button.

Submitted by: Jim Skeen, NAR# 69670, SoAR# 005

FLIGHT TEST RESULTS

The unit was installed in an Estes Nova Payloader and flown on November 28, (new moon). The first flight used an A8-3 motor with the standard 12" parachute. Over altitude and descent rate were not good. Three other flights completed on B4-4 motors and an 18" parachute. Visibility using the B4-4 motors was deemed very acceptable, possibly opening the door for later flights with a C6-5 motor.

An email thank you...

Greg,
Hope you had a high power Thanksgiving!

Regarding low power, you meet people in business settings that think QUANTITY only and not QUALITY. And often the stress on quantity leads to poor products and services. The emphasis on HPR seems sort of the same to me. The last launch I had a fin crack, with a B engine. My construction techniques can be improved on any rocket of any size.

I enjoy seeing and hearing HPR and am working toward getting certified. But testing chutes, tracking radios, altitude tracking, body tube joining, igniter installation, paint finish, fin strengthening, chute packing, lug placement, and a whole host of other cool skills can be improved with a 12 inch C rig.

And of course the kids love being involved with their own small contributions.

I really support your attitude!!! And I appreciate your hard work that has gotten me started in rocketry again. Keep working to make low power an exciting place to be!

The Quadrathon was an ideal event. It was the highlight of this past season to me. Create some more events like it that test people's skills within size/weight constraints.

See you later.
Nelson

YEAR-END STATISTICS

Would you believe we had 90 participants during the year! And these folks flew 500 flights! And these numbers do not include the entire year since SoAR formed later in the year.

Congratulations to our monthly "Most Flights Award" winners: Joe Williams, Mike Geraghty, Jacob Bock, Sean Nelson, Richard Bock, and Joshua Holmes.

The next scheduled meeting of the NAR Board of Trustees is currently scheduled for January 30-February 2, 1998, in Washington, DC. NAR members with items they wish put on the agenda for that meeting are welcome to contact me directly to get those items on the agenda.
 Mark B. Bundick, NAR President
 70156.625@compuserve.com

The Presidents Award

For all the new members, here's a short explanation.

The Presidents Award is given to the one member who, in my opinion, has given a little extra effort to the club. This was a short year so narrowing down my choice was a little ruff. I ended up with four finalists.

- ⇒ Tom Winterbottom-Our Vice President, he helped me start the club. He has given too much to the club to list.
- ⇒ Doyle Tatum-Our Web Master, Doyle came to us from the NASA Section. He is always giving great advice and, sharing his experience. Of course he's in charge of our new web-site. This is priceless advertising.
- ⇒ Brad VanDuser- Our Newsletter editor, without Brad helping out, the Quadrathon would've been a nightmare. He made up all of the forms. Also, his work on the SoAR Spot is outstanding!
- ⇒ "Dangerous" Dave Nakamoto- He's been with SoAR since the first launch. His models are always entertaining, and hey, if you lose your rocket, he'll find it.

At the end of the Quadrathon, I had Lindsay Roberts draw the name of the lucky winner. Tom Winterbottom's name came up first. Tom is now the proud owner of a LOC/Precision "Legacy" donated by Rocket Science. Congatulations Tom!! Tom plans on using his new Legacy to certify Level 1 at the MWMSSM 2 in March. Goodluck Tom!

The President's Award will be given away again at the next Quadrathon. Maybe the next winner will be you!

Announcing an NAR-sanctioned Regional Meet in West Palm Beach, Florida:

For the Duration 2, 30 May 1998 — Florida Spacemodeling Association Flying Field, West Palm Beach, FL

Events:

A	Parachute Duration (WF 7)	C	Eggloft Duration (WF 16)
A	Boost Glide (WF 18)	D	Streamer Duration (WF 11)
B	Helicopter Duration (WF 21)		

The field is a generous sod farm about 20 miles west of WPB. A 3000 ft waiver will be in effect for high-power sport flying (the site is suitable for up to K power, if the rocket's big enough). Bring your own shade; there are *no* trees on this site. Contest entry fee is \$5 for adults and teams, \$2 for A and B Division contestants; an additional \$5 launch fee applies to those who are not members of Florida Spacemodeling Association/Tripoli West Palm.

Come start the summer off with a whoosh! In addition to the nearby Disney/Universal/KSC attractions, Palm Beach County has enticements of its own: the original Lion Country Safari wild animal park, fine shopping in Boca Raton and on Palm Beach's famous Worth Avenue, and of course, our namesake beaches. So come for a family vacation... but don't forget the rockets!

There's no "official motel," but I'll be happy to help anyone find a room. For more information, contact...

Bill Dauphin, Contest Director, 6153 Seven Springs Blvd., Lake Worth, FL 33463, (561) 966-7969
 Email: 74344,3043 (CompuServe) or dauphinb@ix.netcom.com

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See our catalog at <http://yourworld.compuServe.com/homepages/prathobbies>



WWW.NAR.ORG
National Association of Rocketry
Post Office Box 177, Altoona, Wisconsin 54720

Check Out These Sites on the Web

SoAR now has a web site! Connect to
<http://members.tripod.com/~SOAR1>
(this is a case-sensitive address) This site
is changing on a regular basis while we get
things sorted out. Contact webmaster
Doyle Tatum for more info at
doylex@mindspring.com.



A great club site! Central Massachusetts
Spacemodeling Society is located at
<http://www.cmass.org:8000/>

See the great photos by Peter Luthi.

Some vendor sites:

<http://ideations.com/>
Boyce_Aerospace_Hobbies and
<http://www.apogeerockets.com> and
<http://www.aerotech-rocketry.com>

Have you found a cool rocketry related site on the internet??

Let us know about it! Send an email to
the newsletter editor, Brad Van Duser,
at BradV@BellSouth.Net.

Share your favorite sites with us!

SoAR 1998 Launch Schedule

Special Event	Sunday, Jan 18	Cartersville Field	Sport launch, Range open until 8pm for Night Launch!
Sport Launch	Sunday, Feb 15	Cartersville Field	Sport launch 1/2A-G motors
Special Event/HPR	Sat/Sun, March 14-15	Ft. Valley Field	Mick Wilkins Memorial Sport Scale Meet '98, HPR also
Sport Launch	Sunday, April 19	Cartersville Field	Sport launch 1/2A-G motors
Special Event	Sunday, May 17	Cartersville Field	Hobbytown Classic, Sport and Giant scale
High Power	Sat/Sun, June 20-21	Ft. Valley Field	Sport Launch 1/2A-L motors
Sport Launch	Sunday, July 19	Cartersville Field	Sport launch 1/2A-G motors
Sport Launch	Sunday, Aug 16	Cartersville Field	Sport launch 1/2A-G motors
High Power	Sat/Sun, Sept 19-20	Ft. Valley Field	SoM-4 Meet, Five events plus HPR event
Sport Launch	Sunday, Oct 18	Cartersville Field	Sport launch 1/2A-G motors
Special Event	Sunday, Nov 15	Cartersville Field	2nd Annual Quadrathon, Four events with one rocket!
High Power	Sat/Sun, Dec 19-20	Ft. Valley	Sport Launch 1/2A-L motors

Directions to Cartersville Field:

Take I-75 to exit 124, go West, follow Hwy. 113 through town to Euharlee Rd, turn right, go about 6 miles to Cliff Nelson Rd, turn left, take second left on Hardin Bridge Rd, follow to end of road, the field is on the right.

The Cartersville field is located on Sod Atlanta property and is approximately 40 acres. For more info page Greg Burke at (404) 646-6060 or email SoAR571@Aol.Com.

Directions to Ft. Valley Field:

Take I-75 to exit 44, go East, field is on the right in the middle of the field.

The Ft. Valley field is located on Super Sod property and is approximately 400 acres. For more info call Dale Windsor at (770) 425-7708 or email at Dale.Windsor@MindSpring.Com.

"Hang Time"

Designed & drawn by: Greg Burke, NAR #65584, SoAR #001

Parts List

BT-50 Body tube
 BNC-50B Nosecone
 JT-50 Tube coupler
 Motor hook
 BT-20 Motor tube
 20/50 Re-enforced centering rings
 BT-50 Centering ring (or cardstock)
 Shockcord
 1/8" Hard balsa

Construction:

Pretty straight forward. For the shockcord attachment, tie one end of cord to the motor mount. Make a hole in the BT-50 centering ring. Slip the cord through and tie a knot. Use five minute epoxy inside the coupler to attach the centering ring and strengthen the knot. Mount the fins using wood glue. When dry, smear five minute epoxy along the fin joints for strength.

