

Shroudlines

A Dallas Area Rocket Society Production

DARS
NAR Section #308
May / June

BUILD 'EM STRONG!

By: George "The Other" Sprague

So you missed NARCON 2001? Missed out on attending my session, titled just like this article? OK, I'm sure there were compelling reasons. Well! Here are a few highlights and nifty ideas on how to strengthen your model rockets so that they survive not so perfect landings, especially when you fly those Large Model Rockets (LMR) with "E" motors.

Sure, you can fiberglass the whole rocket. But if you didn't attend Dave Schaefer's class on fiberglassing, or just don't want to go through all that trouble, well, here are a few good tips.

Fins and centering rings can be strengthened by gluing one ply of facial tissue to the wood. Sand the fin or ring to a smooth finish, then mix some wood glue and water right on the fin or ring. If your rocket came with those thin cardboard rings, make some out of balsa wood and glue to the cardboard ring first. Lay the tissue over the glue. Do both sides at the same time. Then, sandwich the wood between two sheets of wax paper and two heavy hardcover books. Wait 24 hours, remove and sand. You'll have very strong fins with a nice surface, ready for painting.

When attaching the fins to the body tube, sand the area of the attachment in order to remove that glossy finish which weakens the hold of the glue. Apply glue along the root edge of the fin, position on the rocket the remove. Wait 2 minutes, or until glue is tacky, then apply a thin layer of glue to the fin and re-attach. You will notice the fin stays on and doesn't move much. You'll have an extra strong bond. Don't forget the fillets!

Concerned with zippering? You know, that nasty slice when the shock cord hits the front of the rocket at ejection. You can strengthen the opening by applying thin, odorless CA to the edge or, for LMR's, a thin coat of epoxy. Don't forget to test fit the nose cone after these procedures. And regarding the shock cord, make it at least two (three is better) body tube lengths. You'll further reduce the chance of zipper and stress on the shock cord mount, which should be Kevlar cord. Why? It makes it easier to replace shock cords, which should be done after every two or three flights. Fabric stores carry shock cord material in various widths. Usually 5-8 yards for \$1.00 or so. A cheap way to reduce the chances of separation!

But if you do have separation, perhaps you may want to prepare in advance by attaching the swivel (you use swivels don't you?) of your parachute to the shock cord itself and not the nose cone. This way, if there is separation, the chute won't fly off with your nose cone and hopefully you'll be able to recover and repair both the nose cone and the body of your rocket.

One last tip: shock absorbers for those pointy fins. Simply glue a piece of wood dowel the length of the trailing edge of the fin. Make sure the dowel is of appropriate diameter. Do this before attaching fin to the rocket. The dowel must be just a tad longer than the trailing edge of the fin and must be able to touch the body tube. If the rocket lands on one fin, the shock of the impact will be transferred through the dowel and up your chances of having the fin survive the landing.

If you have some keen ideas of your own, why not send them in to "Shroudlines" and tell us of your experiences with your specific ideas. And help make those model rockets strong!

In the meantime, fly often, straight and up!



George Sprague right after his NARCON session.

Inside this issue:

Build 'Em Strong!	1
Rocket Regs	2
Mecury/Redstone	3
NARCON Report	4
McKinney Outreach	6
O'Bannion Outreach	7
Paying Forward	8
A Sad Story	8
Classic Contest	9
April Madness Report	9



While attending a DARS meeting I saw the new issue of a 1/34th scale (70" divide by 2.04") Mercury/Redstone and said to myself, "I've got to get me one of those!" I could see many easy improvements to make a competitive entry for Sport Scale. After learning some new tricks and making some purchases at NARCON I entered my MR7 in a local hobby shop model building contest and got second place.

Now the decals are peel and stick, which is the first thing that gave me the idea to make recessed panel lines. The lower roll pattern I kept because I was making 'Alan Shepard's Freedom 7' and the booster number is MR7, 'Liberty Bell's' was MR8. Besides I was dabbling with a PMC for LB7, but that's another article. The decal also has the same thickness as the peel and stick Monocoat you'll be putting on.

After the lower pattern was applied I noticed you can still see the spiral groove through the white of the decal, I recommend you spray white first before applying said decal. After measuring circumference of the tube and getting heights of the panels by measuring and scaling up Glen-coe's Juno booster, I cut panels from a full strip of gloss white, peel and stick Monocoat. I stacked them like bricks all the way to the top, comparing with the plastic model and presto! Recessed panel lines. Well, they just didn't look right, too sharp. I masked the lower pattern and lightly sprayed with flat white Krylon on all the panels, perfect. It rounded the edges and took the darker lines out. After an over night dry sprayed with lacquer gloss clear. When dry, apply water slide decals in their places.

Yeah I know, the red United States is suppose to be over the fin to the left, next time I'll look at the pictures more closely. Now as for sealing TP decals I've tried all kinds of things and so far I have very good luck with Future floor liquid polish for a gloss finish, for flat or semi gloss use a water base acrylic in an airbrush, the real cheap one. It has a heavy nozzle already and it's designed for large coverage. Straight polish, you don't have to thin it, it's like water.

I waited two days for the decals to dry then wiped down with a denatured alcohol damp cloth to get rid of any decal glue and finger print oil. Spray everything to be glossy, at first it doesn't look like much but just put it away and come back in a couple of hours. It flows out leveling itself and doesn't hurt the decals. If the coat is too thick it will run freely so use light coats and roll the tube for a few minutes. Give another coat then leave alone for a day. One more coat, let dry, then lightly sand with the finest grit you got. I have some 3000 grit bought at the convention. Then two

more coats and I can shave with it.

The capsule's changes were the decals and it's color. I've heard gunmetal but I didn't hear that until after mixing 3 pts GM engine blue with 5 pts flat black. I think gunmetal comes in a 'Rattle Can.' Drown the decals in, Microscale Decal Set and Sol, I still had to pop bubbles then drown it again. Sealed the paint and decals with Model Masters semi gloss acrylic shot using an airbrush. You have to thin, Polly S Acrylic thinner, but you can still use a cheap gun.

The kit's black decals for the fins, and dotted lines are wrong. I first thought of using them instead of painting when I found if you cut just inside the lines, as the instructions say, you find they are too small. If you cut them to fit you have dotted lined borders on your fins. Gave the fins a light sanding, cleaned then sprayed with Krylon flat white, peel and stick sticks better on flat. I used some extra gloss black Monocoat cut to fit, man I love the way this stuff works. You can help its staying power by sealing them with lacquer clear gloss, after all is dry glue the fins in their slots.



Warning: The opening for the motor is too small! If you assemble the motor mount as instructed you'll find the tube will be compressed at the opening. I had to grind mine until an 18mm could be inserted leaving half of the glued surface of the motor mount tube gone. Grind the plastic part before inserting the tube until it is snug but not crimped. Well, that's the way I did it. Don't do as I do, do as I say and you'll end up with a pretty decent Sport Scale entry. I still have more ideas that can be changed on this one, changing the tower scaffolding with aluminum tubing and rods come to mind. Maybe an ejection system for the tower to eject with a streamer and the capsule on it's own chute and maybe...

NARCON Report

By Doug Sams

This is a non-objective summary of my NARCON experience. That means I'm writing from memory, and I'm presenting my take. No offense intended to anyone I may leave out. Also, I don't have access to some references, so I may misspell some names.



(My computer modem was DOA upon my return from NARCON, so my time for writing a better report was displaced by a multi-hour futile attempt to get the modem working. I had intended to post some pics to abmr, but that probably won't happen now. Tim and Beth Sapp will be preparing a DARS club newsletter which will cover NARCON. It is my hope that you will be able to electronically access that in a few weeks.)

Doug Sams, Author and soon to be NAR Level 1.

Friday evening, the first session I attended was Tim Van Milligan's (Apogee) resin casting session. Tim seemed a little nervous at first, but loosened up in time, and conducted a truly enjoyable session. (I later learned the session had originally been scheduled as a discussion, but turned into a presentation, so evidently, Tim was caught a little off-guard.)

Tim went over mold-making using RTV rubber. Then he showed us how to cast using these molds. Great stuff. Mike Jerauld (Blast from the Past) was there and contributed, too. We all need to pick up Tim's resin casting application note.

At some point Friday evening, I won a \$25 Aerotech coupon during a raffle. Can you say reloads?

I missed Saturday's morning sessions with family in town, but made it in about 2:30pm. I got to finally meet many rocketeers I have previously come to know thru rmr. Among them were Andy Eng, Glenn Overby, Curt Brandt, Larry "Akazilla" Ortega, Chas Russell and Dale Greene. It was fun finally putting faces to names. (Sorry if I left anyone out.)

I spoke with Neil Tarasoff (whom I already knew :) and told him I looked forward to snapping the picture of he and Tai shaking hands in McGregor, TX, at the upcoming launch :)

Meeting with the vendors was the highlight of the show for me. Scott Shaw and I acted like kids in a candy shop going from room to room for interesting stuff.

Mike Jerauld (Blast from the Past) had his M10, M10D, NASA Space Shuttle and upscaled NASA Space Shuttle there. He also brought an Omega-D, and he had an original Cineroc, too. His kits were gone in a flash. Although he was probably disappointed he didn't/couldn't bring more kits, I am sure he was excited to see the interest in his kits. He also inquired if the attendees would be interested in having an Omega-D facsimile kit. There was much interest.

Dale Windsor (Lawndart Rocketry) was there. He had several kits on display including his "bag o'parts" facsimile kits. Either his "bag o'parts" clones were gone before I got there, or they were not quite ready, but he did have some other kits for sale, and was getting lots of interest from the attendees. Keep an eye on his website for an update on these "bags o'parts".

Andy Jackson (Aerospace Specialty Products) had some neat micro-maxx rockets and some cool egg-lofters. I picked up one of each. The egg-lofter is incredibly light.

Tim Van Milligan's (Apogee) Sat-V and Sat-1B were very popular. During his casting session, he showed us how they had developed some of the wraps for the prototypes. These models have as much or more detail than many static models. I anticipate his kits will be very popular with non-flying modelers. I picked up some 1/4A and 1/2A motors from him along with a helicopter rocket and an upgrade to Rocksim 5.0. Tim brought his wife and baby this trip. I think they had a good time, too.

Tom Prestia (Tango Papa) must have left exhausted. He had arranged to borrow an Alps printer from one of the DARS members, and that thing ran non-stop over the weekend until there was no more decal paper to print on. Tom may well be the most sought after vendor in the hobby. I picked up some decals myself. And I saw several attendees carrying 3.9" Mars Lander kits around.



Tom Prestia and one of his Mars Lander kits

(Continued from page 3)

Chad Ring (Ring Rocketry) is a delight to be around. Always smiling, his friendly face and sense of humor are engaging. When he collected a raffle prize of a 29-180/240 set, we all had a good chuckle. I had only met him once at last year's NARCON, but I had looked forward to seeing him again just so I could share some laughs. I picked up some kevlar from him along with a couple of BT-30ish tubes. And I saw several folks carrying black body tubes around the building, so I know they must have made it up to Chad's room.



Chad Ring of Ring Rocketry

Speaking of Chad's room, they must have tired of hearing "Where do you all sleep?". You could barely turn around in his room. But that's half the fun. It was kinda like a crowded country store in there.

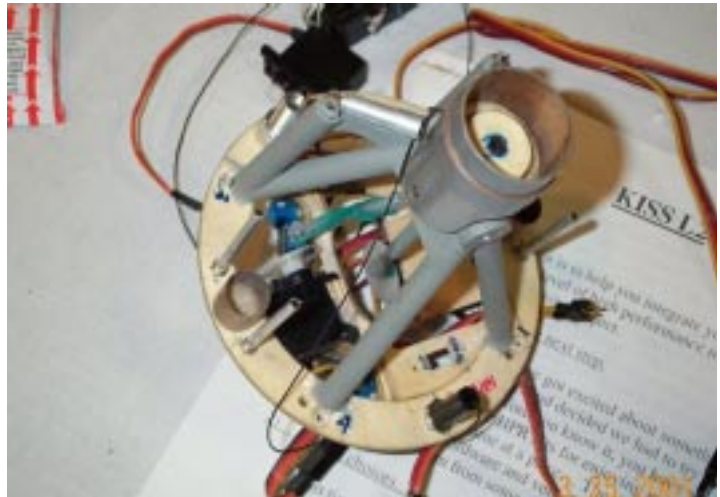
Bill Saindon (BMS) was ever present. I got to meet his lovely wife MaryAnn this year. I had been looking forward to seeing Bill, and I got to know him a little better this year. Seems he's really a Texan at heart. I invited him to move down, but he declined :) In addition to nosecones, this year Bill had a goodly offering of Edmonds kits. I picked up three myself. In fact, Bill may well have gotten more out of me than any other vendor. But that Deltie Thunder's gonna be a blast.

A new vendor was present - launchpad2000.com . I think it was their first NARCON, so they seemed to be in the learning mode. I enjoyed chatting with them. Wished I'd gotten their names, but I did get their URL :)

I met another (apparently) new vendor - Chad Blair. I recognized his name from rmr. Visit his site at <http://rocketwerkz.com> .

Larry (didn't get his last name) was there to present some of the theory behind the G-Wiz Partners altimeters. Good presentation. I learned a lot. Now hoping to build my own for the fun of it.

The most interesting (to me) presentation was John Pursley's. He demonstrated guidance control using two different techniques - light sensors and gyros. This was way kewl. The sensors provided inputs in servo circuits which controlled a gimbaled motor mount. Awesome.



The starting of a Gimbaled Motor Mount

These last two presentations got me pumped. Although I'm an electronics professional, I have been enjoying my BAR-dom thus far in a fairly low tech way. I have had some interest in the altimeter type electronics, but no great excitement levels. Well, that has changed now, so the local components distributors need to look out. I'll be calling them for samples shortly.

Another good presentation was Buzz McDermott's "Cloning the Classics". He provided many suggestions for building those spectacular eye-candy rockets of yesteryear without plunking down a gazillion bucks on ebay. Most useful was his list of many references for procuring those hard-to-find items unique to many of these kits.

Bunny's speech closed the conference. I really admire this man, and I am grateful we have him as NAR president. The key message I got was outreach. We need to get (and keep) kids involved, and informed. Their parents, too. I've been wanting to participate in some of the DARS related outreach programs, and I will go forward and make the extra effort to get involved.

NARCON was a blast for me. I'm grateful I was able to attend, and thankful to my tolerant wife for giving me the weekend. I also want to extend my kudos to my fellow club members who organized this. Lots of hard work went into it. Special thanks to John Dyer who headed up the effort. Also, I wish to thank all those who presented and shared with us their expert knowledge.

If you've never been to a NARCON, you're really missing out. Support these vendors, and take a newbie flying.

DARS hosted its fifth annual launch for the McKinney YMCA Indian Nation on Saturday, March 31. The launch was held for the third year in a row at Erwin Park in McKinney. The last two years have seen much less than optimal weather (in other words wind, clouds, rain and cold weather) at this event. This year was different, however. The skies were blue and partly cloudy, the temperature varied between 60 and 70 degrees, and there was very little breeze at all. It was a perfect morning for flying model rockets!

Jack and Suzy Sprague, Stewart Lilley, Richard Dover and Buzz McDermott arrived at 8 a.m. to start range set up. A little later George Sprague and Doug Sams arrived. A large crowd was expected this year and so a dozen pads were set out. Caution tape barriers were also run around the range to help with control of the large crowd expected to be on hand. By 9a.m. the range was up and running and there were already 50-100 Indian Guides and Princesses in line waiting to fly. By 10 a.m. it looked like there were 200-300 total people in line (kids and parents).

Jack ran the range head, doing double duty as LCO and RSO. Everyone else helped manage the pads, help newcomers with prepping their rockets, and doing crowd control. Since Jack was letting each boy or girl launch his or her own rocket, the line started out moving a little slow. After a while, most everyone agreed that 'drag racing' would be more fun. Rockets started going up two, three, four, or even five at a time! This helped considerably with the backlog of kids waiting to fly.

This year it looked like the Alpha III was the rocket of choice. These made up the majority of all rockets flown. Most all of the Alpha flights looked like they were made on A8-3 motors. There was the usual smattering of other types of model rockets, with a few C and a couple of D powered flights.

With such a large group of flyers and only a three-hour window to get all of them in, there was little time for demo flights. However, a couple of interesting flights did make it in. Richard Dover was kind enough to run home and come back to the park with his 'Pop Goes the Weasel' rocket. This is what looks like a large

model rocket about three inches in diameter and three to four feet tall. It looks like what must be a 54mm motor is loaded in the bottom. Richard hooks up his rocket in the standard way. However, when it is 'launched' strange things begin to happen. First, the rocket smokes a little. Oops – must have burned the igniter. But, wait! A couple of seconds later it looks like the ejection charge has fired, kicking off the nose cone. A second later a small rocket comes flying out of the body tube! The kids ALWAYS get a big kick out of this rocket.

One of the dads, Sam Hockaday, brought out his Estes Mercury Atlas to fly. Sam didn't want to fly it on a D12-3, so a search was made for an E15-4 or E30-7. An E30 was found and he proceeded to prep his rocket. The fast boost and extra noise of the AP based motor really impressed the crowd. The Atlas made a very straight flight several hundred feet into the air. Several people started counting after burnout, waiting for the ejection charge to fire..."five, six, seven, eight?, *NINE??...*" At about "eleven" the Atlas lawn darted and **of course** the ejection charge finally fired at that same moment! The rocket was a total loss. Let's all give a big raspberry cheer for Aero-Tech "Bonus Delays".

The launch wound down right before noon. The DARS members all stayed behind to pack up the launch gear and police the area. Don Mueller of the YMCA Indian Nation reported that a total of 156 boys and girls had officially signed in. There are always a few who do not sign in, as well as a number of brothers and sisters that come to fly. Don estimated that between 160-180 kids were flying. There were more parents than kids, so the total crowd was over 400 people - a great turnout on a beautiful morning to fly rockets! Of the DARS members servicing this event, Jack and Suzy Sprague deserve and extra word of thanks. Jack borrowed Scott Hunsicker's truck and hauled the big DARS trailer to the launch. Given the size of the crowd, this turned out to be forward thinking on Jack's part. Good use was made of the tables, fence stakes, extra fire extinguishers and other gear in the trailer.



Thursday, May 3, 2001

It is hard to believe that this is the fifth year that DARS has helped Garland's O'Bannion Middle School with their (almost) annual sixth grade rocket launch. Local resident Doug Whalen has had a vested interest since daughter Kim was in that grade four years ago. Last year son Andy was disappointed when the build session could not get off the ground. However, Andy helped with demonstration launches all day last year (he just loves to get out of class).

Doug has talked me into helping each year. Loyal spouse, Sherri, has been there every other year, except this year Doug made her work. And making a surprise rookie appearance was Buzz McDermott. We convinced Buzz that the new guy buys lunch and it worked!

We usually get the eighth grade students to help us but this year they were on a field trip so we got a good group of seventh graders, including (who else), Andy Whalen. Also helping were Lindsay Parker, Heather Santi, Jasmine Rontan, Linley Wilson, Somalin Thai, Chelsey Shockley, Sara Griswold, Bryan Patton, and Trent Whitmill.

The science teachers were led by veteran Mrs. Clark who started this madness four years ago. She is retiring after this year and wanted one last big launch day. Not quite everyone participated but we estimated around 250 rockets were flown in four separate sessions. They used the Pratt Super 6 again with the laser cut fins. Almost all were decorated, some of them done with quite a bit of originality. They brought the rockets out for each class in baskets and Andy, Lindsay, and Heather would load the motors and check for loose fins and other anomalies. The rest of the helpers loaded igniters and arranged the rockets for the kids to pick them up.

Both Buzz and I had brought DARS launch rail sets and we set up 12 pads, all connected to reliable old Boris, the controller. We had the typical igniter problems and some shorted clips, but our student pad managers did well for the most part. Sometimes the hardest part was getting each rocketeer to load their own rocket rather than let the pad manager do it.

There was a stiff wind but the streamers and Estes A8-3 motors kept everything very close to the ball diamond that we used as the launch area.

Doug helped with rocket prep the first half of the day while Buzz handled range duties and I did pad management with the students. Buzz left fairly soon after lunch to head to another outreach in Keller, so I moved to the repair table while Doug did some launch control along with Andy and Lindsay. Of course, Doug always has a few demo launches mixed in with the rest of the program, and he didn't disappoint this year. He really likes to fly his LOC Li'l Nuke and Onyx on composite motors for the kids. He also seems to have one mishap each year - much to the kids' enjoyment (but not Doug's). But each year the kits seemed to get repaired for the next time.

I don't know how much business the morning crew had at the fix-it table but we were swamped in the afternoon. We had a lot of problems with launch lugs- they didn't fillet these like they did the fins and many fell off, usually on the pad when the wind rattled the rocket around. Also, it seemed that a lot more fins were broken while the kids were waiting to launch too much time in line, probably. We ended up snitching launch lugs off of discarded rockets as replacements and used a LOT of super glue and masking tape.

The morning consisted of a large group of four classes (over 100 kids) followed by just one class of about 15. The afternoon had two big groups of three or more classes each. I may have these wrong but there were over 300 science students out there during the day!

The kids enjoyed pushing the button to launch their own rocket. We had a group of "valet" rocket return service workers that worked out well. And, of course, the elementary school kids on the playground next door didn't mind the show, either.

Except for the wind, the weather was great. Several of the all-day helpers picked up some sunburn, but nobody seemed to get really hot like we have in the past. It was a good day. Now, we'll see if one of the other science teachers picks up the baton that Mrs. Clark has held for the the last five years. We all wish her well.

Respectfully submitted,
 Chuck Gibke, Outreach West (sneaking east)

Outreach Calendar

- Jun 4th National Guard Amory
- Jun 6th Cross Timbers Girl Scout Day Camp
- Jun 11th Rainbow Ridge GS Day Camp — 3 Days
- Jun 26th Corsicana Technology Center (Space Camp)
 it may be on Jun 28th instead
- Jul 9th Eastfield Community College — 5 Days
 Boy Scouts (Space Exploration Merit Badge)
- Jul 17th Corsicana Technology Center (Space Camp)
 it may be on Jul 19th
- Jul 17th Cherokee Council Cub Scout Day Camp
 Canton
- Jul 18th Cherokee Council Cub Scout Day Camp
 Canton

The above are *all* of the Outreach requests I know of at this time. Help is needed with all of them. Please consider taking some time out of your schedules to help out with one of these. You are welcome to volunteer for only one day or part of a day for the multi-day activities. You won't regret it. Outreaches are *great fun!*

Buzz McDermott

Announcing the NTHP Great Classic Rocket Fly Off



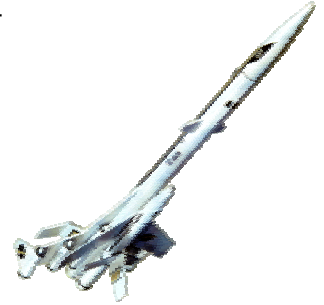
Do you like the classic rocket designs from 20 years ago? Have you built or plan to build a 'clone' of a classic kit or design? Have you built a scale-up of an old design? Do you plan to? How about a scale-down?

If the answer to any of the above is 'yes' then you need to plan on entering the Classic Rocket Fly Off at the next NTHP (Labor Day weekend, Sep 1-2). Entries will be judged on skill, finish, complexity and flight characteristics. This is a fun event open to all participants at NTHP.

Prizes will be awarded in several categories for both junior and adult entries. Check out the DARS web site for the full event rules. They should be posted by mid-June. In the mean time, check with the contest director for details.



Contest Director: Buzz McDermott
buzz@dars.org 972.702.8466



April Maddness Report

By: Steve Murphy

DARS members got the chance to fly some rockets on April 23-24 at the Hamilton farm in Justin Texas. Weather was great on Saturday, but Sunday had winds right at the upper limits of flyability. The 2nd contest leg of the Texas State Championships, (TSC) April Maddness, was held, as well as LMR sport flying.

April Maddness was attended by competitors from Austin, (AARG) Dallas, (DARS) and Houston. (NHRC and Challenger) The point race for the TSC is heating up with the 3rd leg of the series to be held in Houston on June. 30th through July 1st.

The April Maddness events were 1/4 A Rocket Glider, (RG) 1/2A Helicopter, (HD) B Egg-loft Duration, (BELD) and Plastic Model Conversion. (PMC)

Here are some highlighted flights. On Saturday, the Duck and Cover team of DARS sent up a BELD flight of 68 seconds, with a successful return of the nascent crew. Mark Scheevel of AARG, flew 2 fine RG flights of over 30 seconds--not too shabby on a 1/4A impulse motor. Sunday brought strong south winds. It was to be PMC fly-off day, but most competitors, with their complicated entries, hesitated to attempt flights. One by one the thought of bringing home TSC points convinced them to attempt flights. For most, this was a mistake.

One of the AARG PMC entries was a converted Space Shuttle, with ducted launch pad and separate glider and booster recovery like the real Shuttle. The strong winds kept it from getting any altitude and resulted in a DQ. Much the same happened to the DARS Duck and Cover team with their Saturn V model whose three C impulse cluster just didn't have the thrust to get a stable flight. At one point the Saturn actually did a 360 loop and strained to gain altitude before the motors burned out. DQ. DARS member Jack Sprague fared better. His "saucer" conversion featured an attack scenario with parachuting invaders, bombs, rays, and a seven motor cluster. It was the launch of the

weekend to this author. I hope to see it fly again soon. Jeff Jones flew his Redstone model without incident, garnering points. The Los Locos Rocketeroos team from AARG flew a Juno 1, and was the only successful flight among the 5 competing teams.

When the dust had settled, DARS walked away with most of the points followed by the dreaded AARGS <g>. We're trailing in the TSC standings right now, but hope for a good showing down in Houston. The results are on the DARS web site under the launched link.

Thanks and congratulations to Bob Wilson, and his 75 member volunteer staff for holding another successful Maddness.

Sport flights

Some cool sport flights rounded up the weekend with several Level I certs including Tim Sapp. Congratulations! Mark Sims continued the Maddness by flying a model made from a cable spool, (!) for a surprisingly stable shot on a G80. More madness was wrought by Jeff Jones and Richard Benavidez who flew their Estes Goblin clones on soon to be expired FSI E5-6s. These motors burn for around 5 seconds and gave the crowd quite a thrill in the strong winds... John Hattan probably flew the most flights over the weekend taking advantage of the (expiring July 1) free A8-5 motor giveaway. Another "burn the expiring motor" flight was the authors FSI F100-0 booster motor with a Magnetic Apogee Sensor for recovery. The RSO (Shelly Hattan) pondered my asking for a heads up, by asking about the madness of flying a booster (with no ejection charge) motor in a rocket made to be recovered. The sensor did work fine and I'll use it again.

It was great to fly again, and I'd like to thank the Hamiltons for letting us use their field. See you in McGregor!

HTTP://WWW.DARS.ORG

To submit articles
send mail to:

Shroudlines@DARS.Org

B Sapp
215 N. Moore #6023
Coppell, TX
75019



Permission to reprint articles
is given as long as proper
credit is given to author and
DARS.

Shroudlines

A Dallas Area Rocket Society Production



Digital Training & Designs, Inc.
www.digitrain.com

Printing courtesy of Tony Huet of Digital Training & Designs in Addison, Texas. We are an authorized Adobe and Macromedia Training Center specializing in training for Web Design, Multimedia, and Graphic Arts. Applications include:

Adobe Products:

Acrobat
After Effects
FrameMaker
Illustrator
PageMaker
Photoshop
Premiere

Macromedia Products:

Authorware
Director
Dreamweaver
Fireworks
Flash
Freehand

<http://www.digitrain.com>

DARS

The Dallas Area Rocket Society is a non-profit chartered section of the National Association of Rocketry (NAR). It's purpose is to promote the hobby of consumer rocketry in the Dallas\Ft. Worth metropolitan area.

Membership in DARS is open to all interested persons. Membership in NAR is encouraged, but not required. Annual dues are \$10.00 for individuals and \$15.00 for families. The entire family, including children, are welcomed to the meetings.

The club meets on the first Saturday of each month at 1:00pm. Meetings are held in Plano, TX at

Plano Late Night Bingo
1805 Ave K (18th and K St.)
Plano, TX 75074

For Information send e-mail to:
Info@DARS.Org

