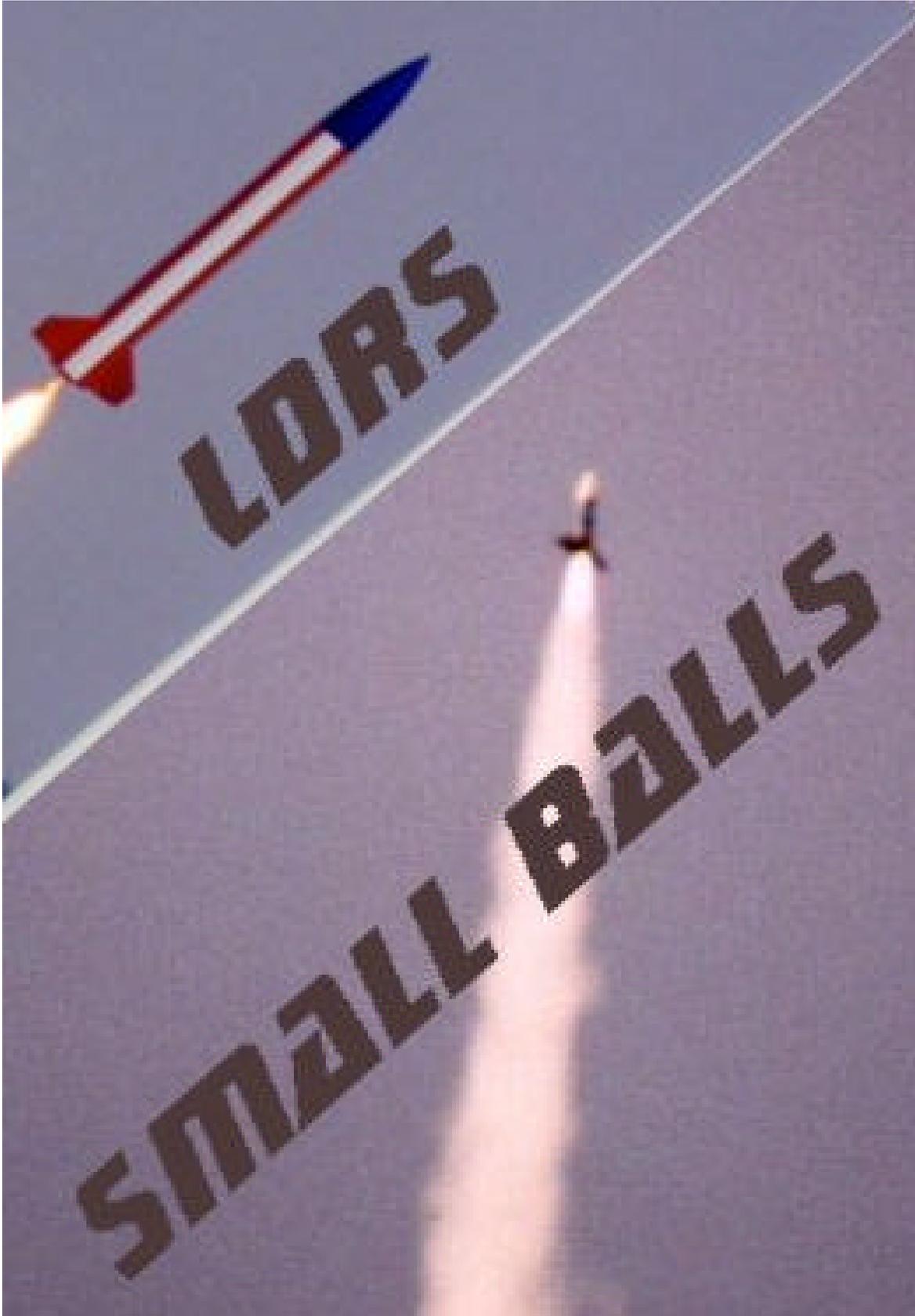




Maryland Tripoli Report

Volume 3, Number 4



Cover: Vicki Bellerose rocket for LDRS and Neil McGilvray for Small Balls.

web page and the rest of the meeting was open discussion.

Editor's Corner :

<http://www.erols.com/robertu>

email: robertu@erols.com

Editor Bob Utley

Are you all ready to move up in motor size? With over 50 M flights at LDRS and 3 out of 4 N flights at Small Balls, it seems that M & N's are becoming the norm these days. So throw away thoes 29,38 and 54 mm motor casings,yea right! Ok, so maybe were not all ready yet, but look for bigger motors this flying year.

The wet weather is great for the farmers, making them happy to let us fly. It should be in October that the field will be cleared for flying.

As many of you are aware, we have started our group project. We are looking for both money and labor. We ask each member who would like to be part of the project to contriibe \$50.00, and any time they can afford. For information we have a section on our web page of updates. Neil McGilvray is the Project Manager so all questions should be directed to him, or me if you can not get hold of Neil.

TREASURE REPORT:

Treasurer Dave Weber

May 26 the treasury had \$2607.00 in the bank.

June 8 there was no Treasury Report.

MEETING SUMMARY:

May 26, 2000

David Weber who was counting the votes for Prefect let us know that Dave Bullis was once again elected as our Prefect. Congratulations Dave.

Information about LDRS and Small Balls was given out, lodging and directions.

June 8, 2000

Neil McGilvray brought in the fin can (what was left) of his N flight, Bob Utley brought in what was found of his Sandhawk (nothing). Jeff Potter had a Dr. Rocket motor casing in blue. Geroge Sechrist had stills of the video of Neils flight for posting on the

LDRS 19:

Kevin Quire and I undertook the 8 hour drive down to Orangeburg, SC for LDRS 19 early on Friday morning. With the amount of "stuff" we were carting, we needed to rent a van. It's just amazing how much infrastructure one needs as one moves up the larger rocket foodchain! And we weren't carrying any launch equipment, either.

This was the first LDRS for us both, and since it's practically around the corner for us East Coast folks, there was never really a question of going or not - I mean, planning for this started the year before.

Having been told that the field at Orangeburg wasn't as large or as good as Price or Whitakers, and with a relatively low 9000' waiver for the event, I'd say we had our fingers crossed and were hoping for the best. The weather on the drive down was perfect however, and with the long range forecast promising more of the same, anticipation was high. The first look at the field from the road didn't reveal much. As we pulled in around 4pm however, it was apparent that the field had ample recovery area, especially if the winds stayed calm.

Prime territory near vendor row and closest to the pads was already long staked out by clubs and individuals, some of whom had arrived the day before. We set the tent up about 1/4 mile down the row and seemingly a mile from the pads. One thing we forgot to bring was the golf cart - oh well, we'll know better next time.

The plan was to get to the field early Saturday morning and help begin prep for Kevins L3, then my Quantum Leap project. Kevin's dad Ken was enlisted to help with preparations and photography, and things were ready to go around 11am. The away cell WAS at least a mile across the field, so taking a page from the Fred Wallace manual of "M" flights, we packed the 6" Iris into the van and drove out! With Fred, of course, and flight prep/recovery team Meagan Wallace, Bill and Will Schworer.

There was another L3 attempt going that morning, and ahead of us on the road. A HUGE Black Brandt II was being trailered out to the away cells, probably 12" in dia, and maybe 17' tall. Imagine the looks that thing got on the road to Orangeburg! Nelson Wallace would have nothing on this guy.

Setup took another 45 minutes or so and finally the time was at hand. Flying at the away cells is the only way to go - no waiting and they stop all other flights when yours is ready. Sweet!

I know Kevin was sweating a little - here was about to go 7 months of work. His wife has warned him he better bring this rocket back in one piece. We got in position to record the flight and the countown commenced. The Kosdon M1130 ignited quickly and the Iris was off on a 5 second burn. Very loud, very cool at this distance. The flight was straight and soon the rocket was a dot. Apogee separation was just past the top, and main deployment at about 1000' was perfect. The Iris touched down gently and without so much as a scratch, and a new L3 is born. Kevin starts breathing again and is determined to do nothing but relax for the next 3 days.

Back at the tent, I start prepping the QL for it's 1st flight. I plan an I435, staging to an I211. The thing's loaded with electronics so what could go wrong, right? Plenty. Didja' ever notice how masking tape eventually loses it's stickiness in the heat? Apparently I forgot, and it caused one of 2 independant failures on this flight.

I chose not to drive back out to the away cell and instead opted to fly off one of the rails at the regular pads. First mistake. By this time, the crowd had grown, the line was long and the wait was longer. 2 hours after leaving the RSO table I was finally assigned a pad and started setting up on the rail with help from Kevin and company. What I would only learn later was that the plastic baggie holding the ejection charge had come undone when the masking tape lost adhesion. My ejection charge was laying all around the base of the booster chute compartment.

The LCO made a huge point of calling everyone's attention to my flight (wisely as it turned out), and the countdown began. The booster motor lit immediately and the 10 lb rocket took off FAST. Drag separation occurred right at burnout and the sustainer coasted for what seemed forever (actually about 2 seconds) when the I211 lit. Cheers from the crowd. Then, everyone just lost sight of it.

Shortly after, the sustainer (or part of it) was seen under main, the booster lawn darted, and the bottom half of the sustainer

buried itself 2' deep in the cornfield. Data from the sustainer AltAcc indicates the (backup) FCS barometric altimeter fired right at the moment of peak thrust of the I211, shearing the nylon strap and sending both halves on their own way. Guess it needed a longer mach inhibit and a different placement of the vent hole...

Amazingly, once the sustainer fin can was excavated and the soil and earthworms dug out of the airframe, there was NO damage. Other than to the finish, of course. So, it's flyable and the booster is repairable. Not bad, considering....

In what was to be an ongoing pattern for the week, we arrived at the field a little later the next day. The NC Tripoli boys had the morning volunteer shift, very aptly handling RSO, LCO, and pad assignment duties. Doug Pratt had the microphone. I got my "Murphy's Law" up on a J415 after a rare misfire on an Igniterman igniter. It got 5300' and recovered great.

Love those SkyAngle chutes. And Mike of Sky Angle is a great guy. He took the time to ask what I wanted as a rocketry consumer, and really listened. He showed great enthusiasm for new products they're testing and hope to bring to market soon. They're comitted to their customer and seek to offer what we ask for at a reasonable price. What more could you want?

Sunday afternoon was our turn in the trenches, with Ed Rowe and Stephen Krall on RSO, Kevin on pad assignments, Don Wittenour on LCO and me pressing buttons. I'm told we set a record for number of flights on a 4 hr shift. I believe it - we were popping them off like a fireworks show. Of course there were still people in the line grumbling things weren't going fast enough. Just can't please everyone I guess....

Flying stopped (mercifully) at 6 on Sunday so preparations for the "banquet" could begin. After a sumptuous repast of barbeque and cole slaw the annual Tripoli meeting began. As I recall:

1. No more "manufacturers demos"
2. We can't talk about the lawsuit against the ATF
3. We can't talk about the land Tripoli is buying, and..
4. Don't hold your breath, it's not located in the East

There was more, but I think everyone just wanted to get on with the raffle.

Jeff Taylor won the bowling ball competition. Serious nice prizes - a Kosdon 3" 5500ns case, Rocketman R14, and something else I think. Back at the table he joked "hey, this motor is HUGE - I don't even fly 3" ROCKETS". Uhh, Jeff, I'll take that off your hands if you can't use it.

I got a few more good flights off on the Kosdon 2550 case - a Dirty Harry and K1250 Skidmark, the latter of which was a crowd pleaser, even after a Skidmark drag race on the away cells. Speaking of Skidmarks, Jim Scarpines was awesome - unfortunately, the apogee charge didn't go and when the mains deployed the rocket was toast.

There was the interesting flight of the rocketless J350. Yep, someone forgot to retain the motor on this particular cluster. The rocket took off one way, and the J350 took off the other way. Very impressive bit of skywriting.

Then there was the fascinating flight of Steve Pollacks Delta which lifted Fred's rail 20' in the air and slammed it back into the ground, turning it into a banana. A thick strap was securing the rocket to the launch pad while the K185 and 9 G motors came up to pressure. Apparently a radio controlled pyro release mechanism was supposed to release the strap? Sure looked complicated when they were setting it up. Kevin warned we should step back further away than we were on this one. Good call Kevin - you interested in an RSO job?

Kevin Mitchell lost his beautiful (intended) L3 project, on a 3 grain Skidmark when the apogee charge failed to deploy the main and the rocket arced over a treeline. An intensive search failed to locate it. He later flew his big red rocket at Small Balls on a "classified" motor with perfect recovery.

Bill Schworer successfully flew a new radio beacon made by another ham. It's just an inch square. My own "Radio Flyer" board got balky and didn't want to operate for some reason. No real need for radiolocation at this launch since the winds were so calm, but we know these units will come in handy in the wind at Price or Whitakers. And we're planning on bringing out a modular ATV system to the fall ESL series. Should be interesting and fun.

All in all it was a fun 4 days. I've never experienced such a concentration of cool flights and great disasters. The Cagle video is going to have to be a double feature!

Jerry O'Sullivan

SMALL BALLS:

MDRA at Small Balls

There was LDRS and then there was Small Balls. Rumor has it that LDRS was good this year. I can say without any doubt that Small Balls rocked. The Prefecture in North Carolina did a stellar job sponsoring and hosting this year's Experimental conclusion to the National Launch in Orangeburg South Carolina, better known as Large and Dangerous Rocket Ships. Rumor has it that 57 M motors were flown at LDRS. That's cool, but we were flying N motors at Whitakers. Rumor has it that the lines weren't "that bad" at LDRS. There were no lines at Small Balls as the hard-core veterans of LDRS and the dedicated experimental rocketeers made their way to the pads and away cells when the mood fit. That's the beauty of launching in North Carolina, no lines and even less pressure. Unless you count the kind that is heard inside of aluminum casings, with flame and smoke spouting from the nozzle.

The weather was perfect, low wind, temperatures in the high 80's. Not bad for mid summer in tobacco country. The crowd was friendly as usual in this Mecca of East Coast Rocketry. Registered fliers appeared to be in the 35 to 45 range. Not bad considering the Newton Seconds that were burned over the course of three days. Ben Russell, Dennis Hill and Jim Scarpine did a fantastic job managing the launch and attending to the various needs of the fliers on hand. It was like a who's who of High Power Rocketry with most of the OuR team present, Paul Robinson, Jim Rosson and Ken Mizoa. Mr. "let's fly it and see what happens" Jim Mitchell was on hand to teach his Thunder Flame propellant mixing class and lend assistance to the multitude of fliers that were sending his motors north at extreme velocities. After my first N I learned what Jim means by "Thunder" Flame, sorry

Jim I couldn't resist. Terry (The Perfesser) McCreary, author of "Experimental Composite Propellant" or better known as "Don't Let Your Wife Catch You Mixing That Foul Smelling Crap Using Her Kitchen Appliances Or She'll Kick Your Ass" was also on hand to enlighten us as to how and why a rocket motor really works and sometimes doesn't. Plus the usual suspects. All in all, an entertaining group. The after launch camaraderie among the fliers was evident each night in the courtyard to the wee hours. Jim Mitchell may have ruined his spotless reputation when he was seen with a bottle of wine that actually contained a cork. Wait till those screw top manufacturers find out Jim, you know I'll never tell.

Casual observation confirmed that the Maryland Delaware Rocketry Association had the highest participation in fliers as well as Newton Seconds who was there to burn some AP in a big way all you had to do was pay attention when the MDRA boys and girl, Kathy, were heading to the launch pads. Or as the case often was, the away cells.

Thursday was the official start of the event. And as fate or great planning would have it MDRA was the first to the pads. Kathy Gilliland launched her Sun Seeker on a DPS J-650 red, into the bright North Carolina noon sun. A perfect flight, with chutes at apogee. A fantastic start to what would prove to be a landmark event. Day one also found Kathy back for the second flight of the day with her Initiator powered by a G-125. Kathy was batting 1000 at this point. Kathy would fly the Initiator and the Sunseeker two more time during the next two days, on white and red propellant. Kathy set the benchmark for the rest of men present to meet. Meet and exceed it they would. Jeff Potter stepped up to bat with his Endeavor, cranking on another of DPS's J-650. Jeff's Endeavor is a beautifully finished rocket that turned in an equally beautiful flight. One of Jeff's highlights, as was many at the event, was the chance to be interviewed by Earl Cagle. Just to have the opportunity to be featured on one of Earl's Rocket Videos says that all the hard work was worth it.

Bob Utley itching not to be out done by girl friend Kathy took to the pads with his Sand Hawk powered by a Kosdon J-450 red. The red propellant punched the red

rocket into the blue Carolina sky for a perfect flight. Now that the coast was clear and Bob got his rocket back it one piece there was only one thing to do. Fly more rockets. Bob was to take to the skies one more time with a smaller creation that he calls Jo-Jo. This vehicle was launched with Ron Millers H-102 red. Plenty of power for Bob's minimum diameter, minimum weight rocket. Once again Bob got it back alive. Inspiration for all, or is that perspiration.

Lester Sherman was on his way back to Maryland from LDRS with travel buddy Norwood Truitt from Delaware. Combined Lester and Norwood flew 5 M motors at LDRS. What could they possibly do for an encore at Small Balls? What else, launch more M's. Both Lester and Norwood combined for two more M motors. Kosdon M-1000 Skidmarks would be the power plants of choice for both rockets. Norwood launched his rocket with a camera onboard. We are all looking forward to the highflying pictures from that flight. Speaking of high flights. Lester's 45-pound rocket tore of the pad to an 8000-foot plus flight. The rocket was 800 feet in the air before the low, pounding roar of the Kosdon motor reached the crowd. Both rockets rose majestically on a plume of black smoke and yellow sparks. Both flights were concluded successfully with perfect two stage recoveries. Norwood also launched one of his cluster rockets. Centering an I-330 DPS red inferno and air starting 2 G-45s. Once again everything worked as advertised and Norwood left with all the rockets that he arrived with.

Neil McGilvray, yours truly, launched on Thursday also. My first flight of the event would be on a DPS K-714 Yellow Jacket. The rocket selected for this flight was the 20-pound Amazing Grace. The only problem that I encountered was a sudden unexpected case of dyslexia. I wrote K-417 on the flight card, which left me with a 4:1 lift off ratio, on paper. After conferring with Jim Mitchell about the "apparent" excessive weight and lack of thrust, Jim offered these inspirational words of wisdom." Well, let's launch it and see what happens". Earl Cagle also interviewed me, which was cool. But the whole interview was based on the 4:1 liftoff ratio and the potential for disaster. The rocket was launched and tore off the pad to 5000 feet followed by a successful recovery. It was not until I was cleaning the motor later

that day that I realized I transposed the numbers on the flight card.

Friday would have some of the late arrivals show up and some of the LDRS veterans finish the trip home. Dave Bullis and crew, Lynn and Larry showed up with Dave's newest creation. A 12" diameter, 140 pound behemoth that Dave called Redemptive Power. We knew for sure that it was Dave's rocket by the tell tale signs of liquid nails. Dave's new favorite construction adhesive. Any remaining doubt was lost that it was Dave's rocket when he warned everyone, not to laugh at his nose cone. Dave's rocket was based on his vision of a Gemini Little Joe and the nose cone slightly resembled a Gemini capsule with a nipple in the top. Leave it to Dave. Sean and Dad, Tony, McAndrew also arrived as did Nelson Wallace. As with most launches the day started slowly with some of the smaller rockets testing the light winds. The weather looked potentially inclement after an early morning fog lifted. But the weatherman was wrong again and the day was perfect.

Kathy Gilliland got her Sun Seeker up and back only to lose it in the field behind the parking area. Hopefully it will be found before Mother Nature has too much fun with it. Sean McAndrew mixed up a special concoction of DPS propellant to create a K-600 Yellow Jacket. As was expected Sean's launch was high, loud and recovery was successful. Right back onto the field. Steve Hacket took to the pads and flew one of his scratch built rockets on a J something. What ever it was I can say with some assurance that the rocket did go up and after it could go up no further it came down.

Later in the day the big rockets would move out to the away cells. The first N motor of the launch was mine. It was a rocket that is named Rancor, after one of the monsters in Return of the Jedi. Rancor weighed in at about 95 pounds and was powered by a DPS N-2890. This was a baby N at 10,411 Ns, but and N nonetheless. The rocket blasted off the pad and the first sigh of relief was at burn out. No explosion, so far so good. The rocket coasted to 5300 feet and began it's quick decent under drogue. At 1200 feet the nose cone was blown off and mains were out. Mission accomplished.

Fred Wallace was the next MDRA member to attempt something big. His Big Wahoo on a M-3150. The propellant would

be of Fred's mixing and was to feature a combination of reds. This was also the 9th M powered flight of the Wahoo. As the sun was getting low the horizon Fred had the rocket prepped and mounted on the tower. The countdown and lift off was nominal. Then at about 1500 feet, BOOM!!! The rocket was apart, in many pieces and floating down on main chutes. The only problem was that the rocket was suppose to go to 6000 feet first and the booster was suppose to twice as long as it appeared now. While the red propellant that continued to flame as the rocket descended provide a stunning visual effect. I don't think it was the effect that Fred wanted. Then to add insult to injury every bit of the rocket, with the exception of the burning section floated into the shallow pond that the entire herd of cows had used earlier in the day to cool off and God knows what else.

As fate would have it the propellant mixture over-pressurized the big Kosdon casing and split it open. Fred did luck out though, the portion of the rocket the explosion destroyed was all above the fin section and the rocket is in re-hab as we speak and the Big Wahoo will fly again. Welcome to the club, Fred.

As Fred was cleaning up the Wahoo, Dave Bullis and crew were loading the 140-pound Redemptive Power onto the tower. Time was ticking away as the team prepped the rocket. This flight was to be the biggest of the day in both weight and Newton Seconds. The motor was a 4.5" diameter DPS N-4070, rated at 17,000 Ns. Not too shabby. All was going well until seconds before launch Dave was informed that the waiver had expired. All that remained to do at this point was to push the button. But before that could happen a few strings had to be pulled first. Ben Russell was quickly able to get an extension to the waiver and the flight was back on. As the sun was about to set over the horizon Redemptive Power roared of the pad on a long tail of Blue. I know where the motor designation, Super Blue comes from. The DPS flung the 140-pound rocket off the pad and into the sky with no problem. Dave had planned to deploy the mains at apogee and recover the nose cone on a separate chute. All went according to plan. The rocket came down in an adjacent field standing up. The nose cone is another story. After many

hours searching the surrounding fields and woods the nose cone is MIA. Hopefully the fine folks in the area will come across it and return it to Dave.

Saturday was to be the wrap up day of Small Balls. After so many successful and innovative flights what would this day bring? It didn't take long to find out as Nelson Wallace took to the pads with his Camera rocket. After the prepping was complete the rocket reached into the clear sky powered by the Kosdon K-550. All looked good as both sections separated, as planned, at apogee and the chutes were out and deployed. Looking good Nelson. Wait a minute; aren't the chutes supposed to stay attached to the payload and booster sections? Unfortunately, it is a scene that has played out before. A valiant effort though, but one that ended in the total destruction of the rocket and the onboard camera.

As the day went on I decided to make a mini group project out of the launch of Udder Madness, one of my Cow rockets. The plan was to launch the rocket on a DPS L-1000ish SRB propellant and then air start 2 I-211's. Bob Utley was enlisted to build the I motors as well as provide one of the casings. Sean McAndrew was to be in charge of setting up the air start. I waited most of the day to launch as part of my mini team was assisting Kevin Mitchell put the final touches on N-Sane. Finally as I was heading toward the pads, as I had go fever and could wait no longer, Bob and Kevin arrived. Having almost a full L of power onboard, I had to launch from the away cell. It was quite interesting to see the herd of cow's reaction to see this rocket with a Holstein paint job head out into their domain. It actually got their attention and they begin to approaching the away cell to check out this new invader.

The DPS motor kicked the cow off the pad and the air starts lit to continue the long trail of white smoke pouring from the business end of Udder Madness. Recorded altitude was 5300 feet. The cow that jumped over the moon. Two stage recovery went as planned and the cow will rise up again. Once back at the parking area it was all hands on deck to assist Kevin Mitchell prep the largest project of the event. The 180 pound, 12" diameter N-Sane.

Kevin like Dave Bullis was planning on recovering the rocket from apogee, however an unplanned crash caused the loss of Kevin's altimeter at LDRS. But rocketeers being what they are Kevin was able to borrow altimeters from Norwood Truitt and borrow the main chute from Launch Director, Ben Russell. Kevin's big red rocket was finally ready late Saturday afternoon and to the away cell the entire MDRA contingent went. Locked and loaded, dressed for battle, N-Sane was ready to rock. For the second time in two days we were to witness the power of the 4.5" diameter DPS motor. Once again the propellant of choice was the Super Blue. But this was a slightly higher impulse than the blend Dave Bullis used the day before. Kevin's motor was rated at 17,000Ns as a N-4700. As all that witnessed it will testify, the motor provided more than enough power to push N-Sane into the air. As planned Ben Russell's big 28 foot main chute was out at apogee and provided the remaining Small Balls crowd a splendid view of this big rocket floating down over the course of 5 minutes. What a way to finish off a spectacular event.

The MDRA group showed that even with the big individual projects, it takes the help of many to get these big birds off the ground. I experienced that first hand with the three rockets that I launched and know that the other big project fliers are as thankful as I am for the help. Miracles will never cease I suppose. Bob Utley was out there on all the big shots and the strange thing is most of them worked. Bob must have a twin somewhere that he sent down for the launch. But then again maybe the jinx is over. We will see this year on our home field at Higgs Farm. Also have just a chance to get on a Point 39 Production Rocket Video inspires one to prep with more care to ensure a successful outcome. It also inspires a go for broke mentality that you just have to love. Especially when it is someone else's rocket. But from what I witnessed over three days of launching there was a very small percentage of failures. Not bad considering it was an experimental launch. This is the future of High Power and I welcome it.

There were many other great flights over the course of the event that I didn't have the specifics on. Small Balls provided all that attended a glimpse of where rocketry

has been and where I believe rocketry is going again. As technology advances and our members tire of what is currently available for motor selection, launches such as Small Balls will gain in popularity and attendance. There is nothing like coming out and successfully playing with the big boys. The event was run efficiently and most importantly it was run safely. Kudos to the North Carolina boys for running a first class event. I for one will be looking forward to the next one, as the next launch can never come around too soon.

Neil McGilvray

DARE Demo:

The July 15th, Model rocket demo launch for the Laurel DE, Public Library was a great success. Even though the turn out was somewhat lower than expected (we still had about 40 spectators turn out) due to expected inclement weather. The gray cloud cover was high and the winds almost non-existent. The almost perfect conditions and a chance to fly rockets around the abundance of crop fields in the summertime by 5 members of D.A.R.E was a great treat. The members in attendance were: Tom McDonald level 2, Norwood Truitt TRA level 3, Lester Sherman TRA level 3, Ted Proseus TRA level 2 and Mark Henning TRA level 1, from True Modeler Rocketry with a whole host of True Modeler kits on display and in the air. We had static displays set up (Thanks, Lester) of a complete set of reloadable motor casings from Aerotech: small 18mm through the 24mm, 29mm, 38mm, 54mm and all the 98mm hardware, some Kosdon 3" M hardware and even a Jim Mitchell O-motor casing.

We flew a variety of rockets from Estes RTF Mighty Mites (cringe) that you can buy in Wal-Mart on 1/2A motors, to Redi ROC drag race on A's, Turbocopter on a A8-3, Bull-Pup on a B6-4, Turbocopter on a C6-7, Maniac on a D12-7, Big Bertha on a D9, Omlod with an egg payload on a C6-3 successfully, my (7)D12-5 4" mosquito, SR-71 on a C6-5, a 2-stage Mongoose on C6-0

to a B6-4, Fatboy on a C6-5, a Vintage Thermal Hawk boost glider on a A8-3. We also flew a 3 Bandit rocket drag race on a A8-3, B6-4, C6-5 to demonstrate the altitude and power difference between the 3 different size motors. It's really cool to see them all done at once at the staggered height to really get a sense of the motor size difference.

Mark Henning of True Modeler's flew His Sentinel on a D12-5, Merlin on a C6-5, his two-motor Nike Smoke on C6-7, his G 80 (Big Bertha-size Alpha type rocket) on a C6-5.

Ted Proseus flew his scratch built 3" rocket on an F52-5, and flew a G75 with a Missleworks altimeter in his VB Javelin.

Norwood Truitt flew an F-25 in a modified Estes Phoenix, and a G-80 in his scratch built Russian M-100 rocket.

Lester Sherman flew a G-35 and a G140 in his scratch built rocket and spent a lot of time answering questions at his trailer and table display.

We didn't just launch rockets, but presented some science facts: Newton's Laws of Motion, math in rocketry (power to weight ratio), the physics of rocket stability (C.G and C.P).

I'm sorry if I missed anyone's flights, had no flight cards and I'm doing this from memory. But it was a good launch; we had no problems or failures.... all rockets were recovered fine. We received a few names of interested new fliers for the regular fall launches and a few requests to do future demo launches at some other fields. If you can get the chance to participate if asked, please take the time to volunteer your time and effort. This is a good way to open the door to access to a new or just another flying field by presenting the hobby in a positive, safe, and professional manor. Overall we had two good rocket demo's this week, (Bridgeville and Laurel DE) and a chance to fly some rockets in the summer. Thanks to all Delmarva Area Rocket Enthusiast fliers that helped out... and we will see you at the next one.

Tom McDonald

PERFORMANCE HOBBY

<http://www.performancehobbies.com>

Want a better deal on motors, then pre-order, and pre-pay, it's the cheapest way.

Almost anything you could need they should have. Phone (202) 723-8257, fax (202) 723-0010.

NEXT ISSUES:

- Launch report of Oct.
- Up coming Level 3 Projects
- Events for Dec & Jan.

Keep The Pointy End
up and the Fier y
End down.
D. Bull is

<http://www.mdtripoli.org>
Copyright 2000 M.T.R. #68



©Unknown 2000
Bellerose family at LDRS 19.



Randy Brust's vinyl lettering for Jeff Potters 4" upscale Maniac. Very nice job Randy.

September 2000

Rocket Calendar

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday																																																																																				
					1	2																																																																																				
					<table border="1" style="display: inline-table; margin-right: 20px; border-collapse: collapse; text-align: center;"> <caption style="font-size: 0.8em;">August</caption> <tr><td>S</td><td>M</td><td>T</td><td>W</td><td>T</td><td>F</td><td>S</td></tr> <tr><td></td><td></td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td></tr> <tr><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td></tr> <tr><td>13</td><td>14</td><td>15</td><td>16</td><td>17</td><td>18</td><td>19</td></tr> <tr><td>20</td><td>21</td><td>22</td><td>23</td><td>24</td><td>25</td><td>26</td></tr> <tr><td>27</td><td>28</td><td>29</td><td>30</td><td>31</td><td></td><td></td></tr> </table> <table border="1" style="display: inline-table; border-collapse: collapse; text-align: center;"> <caption style="font-size: 0.8em;">October</caption> <tr><td>S</td><td>M</td><td>T</td><td>W</td><td>T</td><td>F</td><td>S</td></tr> <tr><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td></tr> <tr><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td><td>13</td><td>14</td></tr> <tr><td>15</td><td>16</td><td>17</td><td>18</td><td>19</td><td>20</td><td>21</td></tr> <tr><td>22</td><td>23</td><td>24</td><td>25</td><td>26</td><td>27</td><td>28</td></tr> <tr><td>29</td><td>30</td><td>31</td><td></td><td></td><td></td><td></td></tr> </table>		S	M	T	W	T	F	S			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31				
S	M	T	W	T	F	S																																																																																				
		1	2	3	4	5																																																																																				
6	7	8	9	10	11	12																																																																																				
13	14	15	16	17	18	19																																																																																				
20	21	22	23	24	25	26																																																																																				
27	28	29	30	31																																																																																						
S	M	T	W	T	F	S																																																																																				
1	2	3	4	5	6	7																																																																																				
8	9	10	11	12	13	14																																																																																				
15	16	17	18	19	20	21																																																																																				
22	23	24	25	26	27	28																																																																																				
29	30	31																																																																																								
3	4	5	6	7	8	9																																																																																				
10	11	12	13	14	15	16																																																																																				
17	18	19	20	21	22	23																																																																																				
24	25	26	27	28	29	30																																																																																				
					Pitt Launch, Ask Performance Hobbies.																																																																																					
<div style="border: 1px solid black; display: inline-block; padding: 2px;">Whitakers EXP</div>																																																																																										

October 2000

Rocket Calendar

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday																																																																																																		
1	2	3	4	5	6	7																																																																																																		
					WELD, Whitakers EXP																																																																																																			
8	9	10	11	12	13	14																																																																																																		
WELD, Whita...					Clark Summit, PA, Ask Performance Hobbies.																																																																																																			
15	16	17	18	19	20	21																																																																																																		
22	23	24	25	26	27	28																																																																																																		
					Whitakers Lau... Maryland/Dela...																																																																																																			
29	30	31	<table border="1"> <thead> <tr> <th colspan="7">September</th> </tr> <tr> <th>S</th> <th>M</th> <th>T</th> <th>W</th> <th>T</th> <th>F</th> <th>S</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>1 2</td> </tr> <tr> <td>3</td> <td>4</td> <td>5</td> <td>6</td> <td>7</td> <td>8</td> <td>9</td> </tr> <tr> <td>10</td> <td>11</td> <td>12</td> <td>13</td> <td>14</td> <td>15</td> <td>16</td> </tr> <tr> <td>17</td> <td>18</td> <td>19</td> <td>20</td> <td>21</td> <td>22</td> <td>23</td> </tr> <tr> <td>24</td> <td>25</td> <td>26</td> <td>27</td> <td>28</td> <td>29</td> <td>30</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th colspan="7">November</th> </tr> <tr> <th>S</th> <th>M</th> <th>T</th> <th>W</th> <th>T</th> <th>F</th> <th>S</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td>1</td> <td>2</td> <td>3 4</td> </tr> <tr> <td>5</td> <td>6</td> <td>7</td> <td>8</td> <td>9</td> <td>10</td> <td>11</td> </tr> <tr> <td>12</td> <td>13</td> <td>14</td> <td>15</td> <td>16</td> <td>17</td> <td>18</td> </tr> <tr> <td>19</td> <td>20</td> <td>21</td> <td>22</td> <td>23</td> <td>24</td> <td>25</td> </tr> <tr> <td>26</td> <td>27</td> <td>28</td> <td>29</td> <td>30</td> <td></td> <td></td> </tr> </tbody> </table>				September							S	M	T	W	T	F	S							1 2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	November							S	M	T	W	T	F	S					1	2	3 4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		
September																																																																																																								
S	M	T	W	T	F	S																																																																																																		
						1 2																																																																																																		
3	4	5	6	7	8	9																																																																																																		
10	11	12	13	14	15	16																																																																																																		
17	18	19	20	21	22	23																																																																																																		
24	25	26	27	28	29	30																																																																																																		
November																																																																																																								
S	M	T	W	T	F	S																																																																																																		
				1	2	3 4																																																																																																		
5	6	7	8	9	10	11																																																																																																		
12	13	14	15	16	17	18																																																																																																		
19	20	21	22	23	24	25																																																																																																		
26	27	28	29	30																																																																																																				
Whitakers Lau... Maryland/Dela...																																																																																																								