



M.D.R.A. Report

Volume 4, Number 3



Cover: Front yard of Mr. Bullis house.

Editor's Corner :

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Editor Bob Utley

Well just call me Bruce. Thought I'd get that out before someone else wants to take credit for saying it. Yes, I'm way behind on the newsletter, if you knew all that has been happening you'd be surprised that there is one at all.

I want to thank Neil, Jerry and Dave for their contribution in this issue.

So lets begin with the happenings around the world of Rocketry.

President Corner :

Greeting my dear rocket friends from across the realm,

I am writing this letter to you all that subscribe or just plain read this great newsletter that our faithful servant, Mr. Bob Utley publishes. It has been a while that one of these fine newsletters has come out or even better yet, that I have contributed to it.

First of all I would like to express my deepest sympathy to all those who lost loved ones that were killed in the terrorist attacks of Sept. 11 of this year. Many lives have been changed drastically all over the country even if we think that we have no connection to the World Trade Center, the Pentagon, or the southwest Pennsylvania where one of the highjacked planes came down. These terrorist acts have changed everyone's life from travelers to government administrators including us, the lowly rocketeer. I myself personally have been inspected by the BATF twice making sure that all my goodies were where they were supposed to be and I had a long wait from the FAA to grant waivers for rocket launches. As for you folks who fly or work at a military base you know where I am coming from.

How will all this affect our hobby? By all means from what I have seen so far, things will not go on as they "normally" did. Security will be of a concern for everybody that regulates our hobby. "What can we do?" seems to be the question that all rocketeers are asking lately. A few things can be done to keep our hobby safe and

secure. Not to get off on the safety issue, for we all know what we have to do there, security is what comes to mind. Keeping our hobby secure is also one of our biggest concerns. The steps that should be taken to secure our hobby are as follows: 1) When at the field, keep your propellant under lock and key. Loose propellant falling into the wrong hands, say a terrorist, can have deadly consequences. This should be done also to prevent children from playing around with the fiery end of our business. Nobody who launches rockets wants to find out their lost or stolen propellant was what caused a fire or killed a kid. Trust me.....when I was little, the lure of fire fascinated me. To this day it still does. 2) Next order of business is the boast phase of rocketry. Notice I said, "boast" not "boost." Boasting in this business is a natural habit, especially if you build large rockets and launch them with big motors. Boasting to the wrong people can bring on unnecessary scrutiny from authorities that don't know jack about rockets. If you must boast, like one I know who keeps spilling the milk, then invite that particular authority to the launch. One of two things will happen when they are asked. They will be absolutely fascinated so they can be corrupted into our hobby or they will simply shrug their shoulder and walk away. Both have the desired effect that we want for our hobby. I can't count the number of times I have asked certain members of the local government where I live to come to a launch and they never show up. Just think of the fun they are missing! 3) Now the FAA waiver side of what we do. This does not really affect the average rocketeer, due to the fact that the FAA waiver is held normally by one person, there is something that can be done to keep our relationship with the FAA secure. When you are attending a launch, keep a sharp eye out for aircraft penetrating the waived airspace. Just because you don't have your name on the waiver or you are running your mouth on the PA system at the LCO table, doesn't mean that the launch officials see or hear the same aircraft that you see. Speak up, your stopping the launch to protect a wayward pilot will go along way in keeping our hobby secure.

Remember, how we present ourselves to the rocket ignorant public is all perception and presentation. If we paint a rosy picture even Michelangelo will think we are artists. For the colors to put in the picture though, you will have to contact

Kathy Gilliland our color coordination officer about this.

Keeping our hobby secure from the evil doers will help us have a safe and rewarding hobby for years to come. Keep the pointy end up and the fiery end down!

David "Ahzihm"

The MDRA and Volunteerism or the World According To Neil

As we digest the changes in our lives as a result of the cowardly acts of September 11th, we also need to put it in perspective of how these events will affect our hobby. Obviously there was unprecedented loss and heartache that came as a result of the disaster. Many have characterized this event as the "Day America Cried" But with all the bad there comes good. Good in the drawing together of the American people as Americans. Good in forgetting our petty differences and focusing on the big picture. Good in raising our collective consciences that we are at risk as a people and we need to defend that. Good in the awaking that not everyone in the world agrees with us, but forewarned is forearmed.

This disaster has reinforced the fact that Americans are the most giving, compassionate and benevolent people in the world. We always take the lead in offers of assistance and even provide it when ignorant repressive governments rebuff our overtures. But don't think for a minute that with this new chapter that history has written us, that we will not flex our muscle. When Americans band together for a common cause, there is no stronger force on this planet to deal with. We are Americans and when push comes to shove we will kick ass. We build coalitions to remain politically correct in the eyes of the rest of the world. The reality is that we set the tone and make the rules. It's our party and our adversaries will dance to our tune.

How does this affect our hobby? As I see it, the renewed solidarity in America gives us an opportunity to reflect on rocketry and how we address it. As you are aware we are a volunteer organization that everyone is expected to participate in. The reality of this falls painfully short. There are

a small group of individuals that lead the way and a majority of the group that follows. Much in the way we functioned in Pre-9-11 America. After 9-11 there was an awakening to do something, anything to help. Give blood, money, and time, just do something. The MDRA sponsored a collection for the Red Cross to assist in disaster relief. Can we apply this need to "do something philosophy" to our hobby? I think so and guess what, it isn't painful. All that is required is a couple of hours of your time at a launch, for starters.

We always need help with set up and especially break down. This should be a much easier process with the completion of newly constructed wagons that will transport all the equipment for the A, B and C Cells individually. All that is required to set up or breakdown is pack and go. Once the launch is underway there is always a need for Pad Managers. To me, there is nothing more rewarding than assisting a fellow Rocketeer setting up his or her project and seeing his or her efforts end in success. This is especially true with new members that may have many questions and concerns. As our club grows in numbers this is an especially critical operation to keep things moving at the pads and keeping the launch rolling. I can't say the number of times I have heard people complaining about how slow an individual is taking getting their rocket prepped at the pad. A little help might eliminate that problem. This all isn't rocket science some common sense can prevail. There is a continuous shortage of Volunteers for RSO duty. This is a critical activity and on that we desperately need to work on and provide some relief for those that do participate normally. One to two hours per individual over the course of a two-day launch will solve this problem. The LCO is another area that we need more involvement in. It is easy and it is fun.

All of the responsibilities concerning the operational functions of putting on the launch need to spread out amongst the members. Not only does the launch run smoother and frees up the usual suspect to allow them to fly rockets but it makes the volunteer feel like member, not just a participant. One of the common themes I hear is the reason people like rocketry is the comradely. I can't think of a better way of truly getting to know your fellow Rocketeers

better than lending a helping hand. Something as simple as lowering the launch rod so they can put their rocket on the rack is truly appreciated. Think about what you feel comfortable with before you leave for the launch. Plan on helping, make it as important as launching your rocket. A few hours over the course of a launch will create new friendships and will help advance your own skills. We have a great group and by helping one another in this new spirit of volunteerism will make the best club in the country even better.

We are engaged in a hobby that very few people understand or even comprehend that it exists. The more organized we are as a club the more positive public perception we can convey. Safety is the prime consideration with this hobby and it comes as a function of organization, planning and most importantly involvement. Our rockets turn into missiles in some people's eyes and it is each individual's responsibility to present themselves and the hobby in the most positive light. The BATF has increased their inspections of LEUP holders, however I have heard nothing but positive reviews as a result of the inspections. Not to say that they are not somewhat nerve racking. What is important is that we present ourselves positively both to Official Agencies as well as the Un-Official public. In general we do a good job of this and will do better with the new awareness.

As time goes on and volunteerism in the club increases the membership needs to be thinking of the time that will come when others in the group will take some of the leadership reins. The current leadership is working hard on making this eventual transition an easy one. The incorporation of the MDRA was a big step and as we come up on our first year of existence I believe that we have made all the right moves and continue to be aware of the changes in our hobby and society during these dynamic and transitional times. The By-Laws have been agreed to and were designed to provide the group with the maximum flexibility to accommodate future changes and potential restrictions.

As we move into this new season and new world we will do so with our eyes and ears open. We will do so safely and as group. We will do so with the realization that

all we take for granted can evaporate without notice. Most importantly we will move forward with a renewed appreciation for who we are and what how lucky we are to live in America. Fly them high and recover them low.

Neil McGilvray

Sod Farm:

At one of ours Price's launch Tom Warpinski wanted to fly some rockets and thanks to the fast thinking of Dave Weber, who remembered him as the owner of the Sod Farm, he got us a date to fly there over the summer. THANK YOU MR. WEBER.

It's been over 3 years since we last flew there and the first launch there was an all out effort to make sure we did it right. We made it a Tripoli sanctioned launch since we have not had one for a couple of years. We limited the number of fliers and limited the motor/rocket size for the field.

Once we had that under our belt we were able to have two more launches there. Without restrictions to the number or size of the rockets, but common sense was use, it is a smaller field then Price so some adjustments were necessary. It's still a very good field and it's nice to walk on grass to get your rocket then the fields. Once the writer strike is over we should have some write-ups on the launches.

Launch System Updated:

As most of you know we have been using the same launch system for 30+ launches. That speaks wonders to Stan Hunter the designer and builder of the system. But as with anything, it will break and give us problems. This summer we did a small make over to the system.

We have had some problems hooking up the batteries to the system at the time of the launches and some of us, me included, have hooked them up backwards to have it smoke on us. Well after packing the smoke back in the system for the second and third time, I told Neil McGilvray there

must be an idiot proof way to stop smoking it, knowing he would be the test subject. We finally came up with using AC connectors on the cells and batteries, just plug them in, it's that easy.

Next we worked on the problems of the system dying near the end of the first day, which caused us to remove a cell or run a different cell wire that might be caused by weak batteries. So we bought 4 lead/acid riding lawnmower batteries and a charger. We'll have to take a wait and see on this fix.

The brain box had a couple of problems too, and all were fixed, including making more keys to arm it,

We have tested the system out a couple of times over the summer but have not had a launch yet to test everything that was done or added. We hope that the improvements will help make the launch run much smoother.

On another note the new launch system is coming along, slowly but it is coming along. Although he might not know it, Gary Deaver is helping with this, he has talked to me about the do's & don't of the system and once I get it a little further along he should have lots more to do.

Dave Bullis, Fred Wallace, Kevin Mitchell, Neil McGilvray, Dave Weber and I built wagons for the setup and takedown of the launch equipment. Handling everything a couple of times for each launch was just plan wearing me out. So we now have wagons for each cell, A,B and C. The wagons have the electronics, launch pads, number stakes and water. The plan is one or two people should be able to get it out of the Sea container to the field unpack it and then pack it back up after the launch and return it to the Sea container.

Kathy Gilliland was asked to purchase Quick Tents for the LCO and RSO tables. Color coordinated of course. Fred Wallace picked up some plastic 6' tables to replace the wooden ones, and not a moment too soon. They are lightweight and should last much longer.

All this is to make it easier for us to set up for a launch and takedown. You don't need training so anyone and everyone should help, hint, hint. Also we don't have to rely on only one person to get the job done, we have put too much on Mr. Bullis shoulders about the launch equipment for long enough. Lastly if the weather should

turn wet during a launch, all we have to do is unplug the batteries and close the covers on the cells electronics and wait it out.

It sounds good, we'll see how close we have to it at the next launch.

If I forgot to mention your name, sorry, next time you buy the beer, I'll remember you then.

Bob Utley

Liberty Project:

If there weren't a writer strike, Neil McGilvray would be writing this one. But I'll muddle through it...

Last we heard our hero was at Neil's work, resting along side of a trailer, sunning itself. Yea, so I don't have his knack for words, nor do I say ark, en like he does either.

The tubes were in fact at Neil's work resting next to his work trailer. Neil worked on squaring one end of one tube, before he called me for help. Since I could not get anyone else to help him I showed up and we squared up the other 3 ends.

The following weekend we, well Neil really, got all dressed up in a jump suit, hat, goggles, gloves and a respirator. To do battle with the fiberglass tube using a belt sander he got most of one end done, but it still needed more work. So we repeated it again and after 25, 60 grit sanding disk we still had 1 more end to sand so the couplers would fit.

I dodged enough of Neil's phone calls that he did the last one him self. I hate the itch I get from fiberglass dust, I can only assume Neil loves it, after all the dust he was covered in, go figure. We ended up taking the tubes back to Neil's house.

I understand that Lester has the go ahead to start cutting the fins and centering rings we will need.

The nose cone is still collecting dust, Mr. Weber did a 1:1 scale of the nose cone, so we can make a template to use in shaping the nose cone and I hope to have that done by the end of November if at all possible.

Dave Bullis and Fred Schumacher are working on the tower to launch the rocket. I don't have a clue how far along that

is, but since I have not received a call (due to my abrasive personality) to help sand and paint it, I would venture to guess not very far yet. I do know that they have acquired the materials they need to build it. I also know that the parts alone weigh a ton so it's not easy to move this stuff around.

Neil is working on making some more shirts for the project and there is a \$200 gift Cert. drawing that should be winding up sometime soon. Check the web page for details.

When will we fly it, like Neil keeps telling me," we're one step closer to the next step "

When you find out what that means let me know, it's driving me nuts.....

Bob Utley

MDRA Web Page:

Back in the summer MDRA got its own web page and moved all of the MDRA business off the MDTRIPOLI page. This was for a couple of reasons. The main one was to make it clear to everyone on the outside that in fact it was two clubs.

If you have not visited the new page, it is www.mdrocktery.org . We could not get MDRA so this was the next best one I could think of, see what happens when you leave it up to me.

The format has not changed, that way we call still find what we want. There is a membership page so if anyone has a question they can check there.

We are now paying for the web page space and at some point in time we will have to remove some stuff to stay under our limit. You guessed it, the pictures will go first, but I'll try and limit Neil's rocket pictures in the future too, to make room for mine.

If you have some suggestion on the web page let me know, if it's not too difficult for me, I might do it.

Bob Utley

ESL 41:

June 24, 2001

Central Sod Farm, June 24, 2001 8:00am. Not a soul in sight, the sun was out the winds were low, great day for a launch.

In all 52 flights took place with H motors being the most used, by 24 flyers.

Alex Baker, Jeff Potter Jr. and Nikki Taylor ruled the launch, until Neil McGilvray got upset and sent them to the timeout tent.

Being that it was over 4 months ago and I have problems remembering things from last week, I'm just going to post the numbers and let you make up your own story on how the flights went.

Bob Utley

ESL 42:

July 15, 2001

There is nothing like summer launching, especially on the finely manicured grass of the Central Sod Farm. Though a few mosquitoes popped up during the course of the day, the bright sunshine and light winds more than over compensated for the minor inconvenience. Once again we have to thank our benevolent hosts, Tom and Jack Warpinski for the use of this beautiful launch site. Due to the Central Sod Farm always being in some form of operation and production we were limited to a one-day launch on Sunday, the workers day off. Beggars can't be choosers and Rocketeers are some of the worst beggars I have come across in a long while. Just stand around Performance Hobbies at any launch and listen to the tales of wao as people try to negotiate a deal with Kenny.

Alex Baker launched his quiver of four Estes rockets in the C and D range. Ashley Bowman continued with the Estes theme and launched six rockets in the A to C range. Ed Brun was slumming it in the Mid Power range with a G-64 on his Air Walker and a H-128 on his Ariel. Clark Carrington came to burn some AP. He launched six rockets in the D to J range. The most spectacular being his Endeavor on a J-420. Kevin Clasing launched his Mustang three times on a F-20.

Bill Davidson made the drive down from New Jersey to launch the most powerful flight of the day. Bill put his Star Duster up on a M-2240 for a neck cracking 7,000 foot plus flight. The recovery was drogue-less and mains were deployed just at the right altitude to keep the rocket within the boundaries of the field. Bill and his son

Colin also launched their Swamp Rat on a H-155. Guy DeStefano was experimenting with his Ram Air Parachutes on his Ray of Light powered by an I-284, Warlock on an I-435, I-Roc on an I-357 and his ¼ Scale Patriot on an I-357. Kathy Gilliland, AKA Princess Perchlorate, flew three times. Kathy lofted her Initiator and Python into the clear sky earlier in the day and flew her featured flight, Sunseeker on an I-218, later in the day. Augie Gray had two flights. His Mini Magg on a H-180 and Miss Grizzly on a B-6.

Mitch Guess Flew a variety of motors and rockets on his six flights, Mitch flew everything from a D to a J. The most notable flight being his Endeavor Stretch on a J-415 for an awesome flight. The Hails, Eddie and Kayla flew 5 times on A power. Richard Hickok flew six times on C, D and E power. Keith Holt made the walk to the pads three times with his Arcas on F and G power. Dave Liss painted the sky with his Crayon rockets on an H-124 and I-161. Tom McDonald attempted a Level 2 certification flight, but was struck down by the Rocket Gods. The flight was spectacular on a Cessoroni J-330. However, Tom leaned that fishing swivels and rocketry don't go hand in hand. Scott McCluskey took to the air four times with his highflying Tethys on a H-180, Phoenix on a I-211 and an I-218 and his Amraam on a J-275. Neil McGilvray flew and actually recovered without incident twice. Once on Socially Un-Acceptable on a K-550 and later in the day with Slam Dance on a K-700.

Stephen Melling had the B and D's rocking three times. Kevin Mitchell had a nice high flight on his Black Brant II. Lindsey Moffet had a successful egg loft on her Estes Scrambler on a C-6. Jerry O'Sullivan had the luck of the Irish on his side as he flew his Sandhawk on an L-850. Jerry just barely missed the trees and recovered his rocket intact with only the parachute in the tree. It was easily removed and made Jerry a happy camper. Jeff Potter Jr. had four flights on A, B and D power. Jeff Potter Sr. flew his scratch crayon on a H-210. Rob Roberts flew three times with his EZI on an I-211, Graduator on a H-238 and his Big Daddy on a F-24. Joe and Michael Ruzzi covered the beginning of the alphabet with six flights in the B to G range.

Fred Schumacher showed up itching to burn some AP and did so on his three flights. Fred flew his Miss USA on an I-435, USA on a J-800 and the big flight of the day for Fred, his Overkill on L-850 air stopping two J-350's. Next time put a 3" mount in a 50-pound rocket Fred. Speaking of itching, George Sechrist had his 4" mosquito powered by a H-112 as one of his four flights. George also flew his Minnie Magg on a H-125, Candy Cane on a G-38 and his Viper IV on 4 D12's. Dick Stafford had six flights to round out his day. Dick flew everything from a D-12 to a J-350 in his Lazarus. Rob Super flew his Navigator 8 on J-350 for a nice flight. Alex Thomson flew his Strong Arm on a G-40 and his SA-14 Archer on a G-80.

Bob Utley inspired the crowd to no end with a pathetic display of aeronautical competency with the flight of his aptly named unruly on an H-124. The most unfortunate aspect of this flight is that the rocket was actually recovered and our members have to endure another flight. Bob's son Robert did the family right by flying his remains and Snitch on C power. Fred Wallace flew his Two Banger on an I-357 for a nice flight. Daughter Meagan flew her lil'Wahoo on a G-35 and her Independence on a C-6. Fred Walls had his Cheetah in the air twice on F-23's and flew his Fire Streak on a C-6. Jack Warpinski flew his Forte' on a G-97. Dave Weber warmed up with his Special Delivery on a G-38 and his Minnie Magg on an H-123 for his big project. That being his lengthened Sky raider on a K-550 and two I-357s. Dave had the opposite luck of Fred Schumacher who couldn't get the outboards to light. Dave lit the outboard I-357s and sent the K-550 for the ride. The rocket was recovered in great shape and Dave will try again.

Wayde Winazak flew three times on his Cool Dude on an H-123, Jurassic Spark on an I-357 and his Airwave on a H-242. All for nice flights. Larry Zupnuck was down from New Jersey also to blast off into the Maryland sky. Larry launched his I-Roc Silo on an I-284 and his feature flight of the Black Widow on a K-777.

It was a great day for all involved. Whether the flights were successful, failures or somewhere in between the main concern is that we had this wonderful opportunity to launch on the scenic Central Sod Farm.

Once again we extend our thanks to the Warpinskis' for their hospitality. Thanks also go out to all of those that helped with the launch, you know who you are. More importantly those that didn't help, think about lending a hand. Many hands make the going light. We are always in need of RSO's, Pad managers, Set up and Break down assistance as well as the occasional LCO. See you at the next one. Fly high and recover low. Or just recover.

Neil McGilvray

ESL 43:

Aug 19, 2001

The summer of 2001 brought with it a welcome addition to the flying fields available to members of the MDRA. The good folks at Central Sod Farm saw fit to allow the club use of their land by rocketeers from New York to North Carolina. This was a bit of good fortune, because as you know, summer-time flying is scarce in these parts unless you hike to Whitakers, NC or points north. Many thanks to the landowner, and the club leadership for engaging him and securing the site!

The Central Sod Farm site is not without its challenges. A threatening treeline sits close behind the flight line, traffic on busy Rt 303 is easily visible from the LCO table, and a good sized water hazard is little more than a stones throw from the pads on another side. There is one good stretch of recovery area available, but it requires the wind direction be just right. Perhaps that explains why model and mid- power rockets accounted for 65% of all flights. As it was, prevailing winds on this day would cause the treeline to claim many victims.

Alex Baker gave the Estes rack a workout with 2 flights of the "Red Dragon" on D12's, his Estes "Banshee" on C6's, and the "Navy" rocket on a C6. I'm sure that was almost out of sight. Ed Brun brought out his scratch built creations "Bits N Pieces", and "Gone Plum Loco" on an I211 and J420, respectively.

Alexandra Clasing debuted her Aerotech "G Force" for 2 flights on G80's, while Kevin Clasing flew his NCR Eliminator on the pleasingly loud F20 and broached

high power with his Aerotech "Sumo" on an H128.

Gary Deaver turned in 4 flights on the day, with his scratch built "Pioneer" on an I211, PML "D-Region Tomahawk" on the explosive I435, a scratch built "Aero-Hawk A45" on an H180, and what may have been his highlight, a scratch built Nike-Herc on a G80 to an F62. That was a busy day, Gary!

Mike Debay, of "flying yellow traffic cone" fame, flew an Estes rocket on a C6, a modified PML "Explorer" on an I161 and a scratch built "Chao 2" on an F24. If that's "CHAO" as in "see ya later", I think it's spelled "cao". Of course since your rocket is an AMERICAN rocket I guess it's "CHAO".....

Guy Destefano was all "LOC" and all 600 ns AT (*ed:Aerotech*) "I" motors with 2 flights of his I-ROC" on I284's, and 1 "Warlock" on an I435. Do you still have all your seal discs, Guy? It took 2 tries (don't I know how that feels), but Ivan Galysh did certify L2 with his PML "Endeavor" on the second J175. Congrats and welcome to "higher power".

Official MDRA cheerleader and color coordinator Kathy Gilliland graced the Estes rack with her "Impulse" and "Python" on D12's. She later showed the guys how its done with another great flight of her "Sunseeker" on a J640. (Just keep Bob away from your rockets and you'll be fine Kathy:)

Justin Gleiter let go his Thoy "Falcon" twice - once on an H136 and later on an I360. Those red loads sure are popular! Mitch and Matt Guess were very busy, with dad Mitch flying his AT "Arcas" on a G64, Loc "IV" on an H180, and Loc "Graduator" on an F40. Son Matt fired up a Loc "Expedito" on an I161, Estes "Amraam" on a C6, and Rocket Vision "Spitfire" on a D12.

Keith Holt came ready to attain his L1 cert with an AT "Sumo" on an H128. Nice job Keith! Now go see Kenny for more and bigger motors. He later flew his AT "Arcas" on G35 and G38 Econojets just for fun. Nicholas Koch had the Estes rack buzzing with 2 A8 and 1 B6 flights, while sister Janice flew a B6 of her own.

Tom MacDonald came with just 1 flight in mind. Certing L2 is certainly a good "1 flight" day, and Tom did so with a scratch built "viper" on a J330. Job well done! Neil

McGilvray never lets an opportunity to burn stuff up go by and so was on hand to fly his scratch built "White Trash" on a J650. The flight card doesn't indicate if this was a nominal flight and recovery, but I don't recall any disasters for Neil that particular day, so I guess it turned out great:)

Elaine Miller has a nicely built PML "Endeavor" and flew it on a J400. Nice. Chris Nuwer had a scratch built "Firestorm 54" and an H123 ready to go for a L1 attempt. Congrats Chris and come on back.

I had a J460 on hand which was to be the booster motor for a 2 stage flight later in the day but I knew I wouldn't have time to prep that one so I decided to give Murphys Law a ride on it. The signature Blue Thunder propellant is supersonic at the nozzle, with the blue flame clearly some distance behind the tail. Very cool. I lucked out when it just missed the treeline after a perfect dual deployment.

I've had a J200 sparky motor I've been wanting to burn for some time and this calm day would provide the opportunity (or so I thought). Although the "Quantum Leap" sustainer only weighs 6.5lbs loaded, and the rail was 12' long, after leaving the rail the rocket immediately took a 45 degree vector away from the crowd and into the slight breeze. Thought I'd never see it again, but I lucked out again spotting a portion of the chute in the adjacent beanfield.

Bill Schworer and I teamed up on a flight using old "Murphy" and a J415 as a test of the RDAS telemetry/GPS payload. Unfortunately, the new GPS unit stopped working on the bench the night before, so we went ahead with the telemetry only. Basically, this is an add-on board/transmitter for the RDAS which transmits flight data (acceleration and altitude) in real time to a receiving station on the ground. Outstanding coolness factor as Bill called out altitude and acceleration over the PA as the flight progressed.

Scott Overfield had 2 flights on his PML "Callisto" on F40s. Ted Proseus flew his scratch built "Extreme 66" on a J235 and another scratch project on an I120. If I'm not mistaken one of those got caught in the trees. He teamed with Darren Wright to static test a 2500 ns experimental blue load. That was LOUD.

Rob Roberts flew his "Franken Dart" on a G104 and G64, a Loc "Vulanite" on an

H210, and an Estes "Falcon" on a D12. Tom Rodillosso twice fired off his Estes "Air to Air Missile" once on a D12, then on the insane (for this rocket) E30. Did you ever get that back Tom? Joe Ruzzi had 4 flights on 4 different rockets, all scratch, with motors ranging from a D12 up o an H70. Now that's variety!

Taylor Scmitt got bitten by the rocket bug big time and flew field assembled Estes kits and anything else he could lay hands on. You might recall he was the little tyke who didn't want the range shut down:)

Kevin Scrimgeour wins the award for most prolific flyer with a total of TEN flights on everything from an E15 to an H180. Way to go Kevin, that's dedication! George Sechrist had a "Candy Cane" on a G35 and 4" "Mosquito" on the smokey H112. Gary singer had his PML "Patriot" on an I200. Haven't seen one of those motors in a while - very cool. He also flew an AT "Mustang" on a G40.

Rob Super had one of 2 K1100 flights that day with his scratch "Navigator G". Robert Taylor's scratch "Shrike" blew out of town on a J350 while helper Nikki flew Estes kits "Honest John" and "V2" on a C6 and D12. Is this a budding scale modeler we have here? Norwood Truitt let go his "Double Trouble" on an H124. Sure that wasn't "Tree Trouble" Norwood? I seem to recall you looking in vain at the tree canopy after this flight. Hope you got it back.

MDRA mascot Bob Utley lost another one when "Unruly" disappeared on an H120. I guess when one doesn't work ya go ahead and load up a much BIGGER one. "Primo" ripped on a K700. Showoff.

TAP member Fred Wallace had a rough day. Here's his description... "So you think you had a bad rocket day? This is a bad rocket day: "After Magnum" destroyed on the pad only \$278. in hardware and electronics destroyed. Short Stuff way up in the tree holding on to slightly more than \$715.00 worth of casing, electronics, release hardware, and recovery chutes and harnesses. For those who did not see Short Stuff launch, the launch and recovery deployment was perfect. The only problem; the upper winds caused serious drift under drogue chute. As a result, when the main deployed at 600' the final spot landing was: main chute in the top of a tree, about 90' up and the main airframe about 60 to 70 feet of

the ground. The nose cone and free bag/drogue assembly are located about 20 to 30 feet away, in the top of an adjoining tree, about 90 feet above ground".

Fred eventually got it out of the tree in true MDRA style - he had it blown out with a shotgun. As Neil McGilvrey says.. "ya gotta love it". I don't know if Larry Z ever got his back after "Magnum #2" screamed out on a K700 and also landed in the trees.

Jack Warpinski flew a chunk of the motor spectrum with a "Forte" on a G64, and again on an H180, then his Bruiser on a K700. Dave Weber showed his long experience in rocketry with a K550 in his Skyraider that flew beautifully and landed about 20' from the pad. How is that possible Dave??? It was windy!! Oh well...I'm just jealous because mine landed a mile away. Dave Young was the other K1100 flyer with his PML "US Navy" model.

Jerry O'Sullivan

PERFORMANCE HOBBY

<http://www.performancehobbies.com>

Aerotech new RED motors are out and PH will have them in stock as soon as Aerotech releases them.

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



Contributed by Bill Schworer

NEXT ISSUES:

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



©K.Mithcell 2001
Kevin Mitchell's N-Sane.....

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

<http://www.mdtripoli.org>
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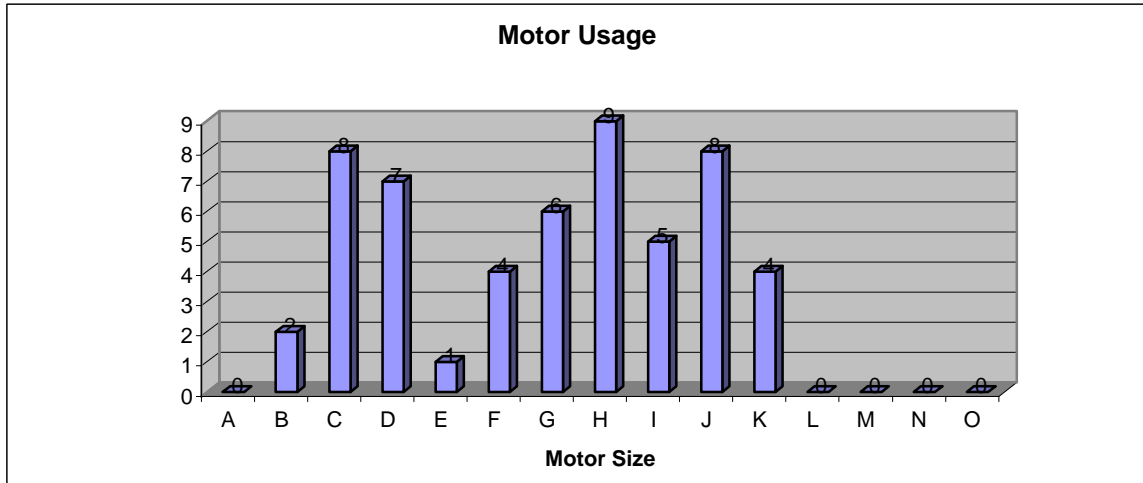
Flight Log June 24 , 2001 ESL #41

Flyer		Manufacturer	Model	Motors	Result
Baker	Alex	Quest	Whiplash	C6	
Baker	Alex	Quest	Whiplash	C6	
Baker	Alex	Quest	Whiplash	C6	
Bathras Jr./Sr	David	Rocket R&D	Corporal	J570	
Bathras Sr.	David	Scratch	Black Brant II	J350	
Bevan	Doc	LOC		J350	*Cert 2*
Bullis	David	Scratch	Salvation	G35	
Bullis	David	Thoy	Instant Access	H180	
DeBay	Mike	V.B.	Stretch Blobbo	D12	
DeBay	Mike	Scratch	Razor	C6	
DeBay	Mike	Scratch	Chad 2	F39	
Gilliand	Kathy	Scratch	Sunseeker	I435	
Gilliand	Kathy	NCR	Impulse	D12/D12	
Gilliand	Kathy	Aerotech	Star Blue	G80	
Kelly	Kevin	LOC	Viper IV	D12	
Kelly	Kevin	Aerotech	Arcas	H128	
Kelly	Kevin	LOC	Viper IV	E15	
Mantell	Bill	Hawk Mountain	Eclipse	K550	
Matney	Barbara	LOC	Heaven Bound	G80	
Matney	Barbara	LOC	Heaven Bound	G80	
McGilvray	Neil	PML	Amraam IV	J350	
McGilvray	Neil	Scratch	Up Chuck	K550	
Potter	Jeff	Scratch	Crazy Crayon	H238	
Potter	Jeff	Scratch	Crayon	I200	
Potter Jr.	Jeff	Quest	HL-20 Lifting Body	C6	
Potter Jr.	Jeff	Scratch	Pyramid	D12	
Potter Jr.	Jeff	Estes	Snitch	C6	
Potter Jr.	Jeff	Estes	Alien Invasion	DB4	
Potter Jr.	Jeff	Aerotech	Strong Arm	F25	
Potter Jr.	Jeff	Estes	Python	D12	
Reamy	Lynn	LOC	Tabita	I242	
Reamy	Lynn	LOC	Tabitha	H180	
Russell	David	Scratch	Astrobee	J350	*Cert 2*
Schumacher	Josh	Hawk Mountain	Raptor	H238	
Sechrist	George	Scratch	"4"" Masquito"	H112	
Sechrist	George	Scratch	"4"" Mosquito"	H123	
Taylor	Nikki	Estes	Big Bertha	C6	
Taylor	Nikki	Estes	V-2	D12	
Taylor	Robert	Scratch	Shrike	J350	
Utley	Bob	Scratch	Unruly	H128	
Utley	Bob	Scratch	Crayon	I435	Drag race Potter
Utley/Potter	Bob/Jeff	Scratch	Primo	J415	
Wallace	Fred	Scratch	Mag	J450	
Wallace	Nelson	Scratch	Knight Hawk	F20	
Wallace	Nelson	Quest	Navaho	C6/B6	
Wallace	Nelson	Aerotech	Baracuda	F20	
Warpinski	Tom	Scratch	Quasar	K550	*Cert 2*
Warpinski	Tom	Scratch	Quasar	K1100	
Warpinski	Tom	LOC	Loc Forta	G54	
Weber	David	NCR	Black Hole Betty	H128	
Weber	David	LOC	HI-Tek	I154	
Weber	David	LOC	Tuber	G75	

A	0	0
B	2	10
C	8	80
D	7	140
E	1	40
F	4	320
G	6	960
H	9	2880
I	5	3200
J	8	10240
K	4	10240

54 TOTAL MOTORS

28110 NEWTON/SECONDS



Atlantic	0		
Aerotech	4		
Apogee	0		
Binder	0		
BSD	0		
Centuri	0		
Cluster R	0		
Custom Rockets	0		
Dynacom	0		
Edmonds	0		
Estes	5		
Hawk Mountain	2		
High Flight Tech	0		
Hobby Lab	0		
Impulse Aero	0		
JD Cluster	0		
LOC	9		
Launch Pad	0		
MSH	0	52	24-Jun
NCR	2		
Neubauer	0	52	Total Flights
PML	1		
Pratt Hobbies	0		
Public Enemy	0		
Quest	5		
Rocketman	0		
Rocket R&D	1		
Rocket Teck	0		
Rogue Aero	0		
Rocket Vision	0		
TCB	0		
Thoy	1		
True Modeler	0		
Scratch	20		
Smokin Rockets	0		
V.B.	1		
Unknown	0		
US Rockets	0		
Weber Eng.	0		

51 TOTAL ROCKETS

Flight Log July 15 , 2001 ESL #42

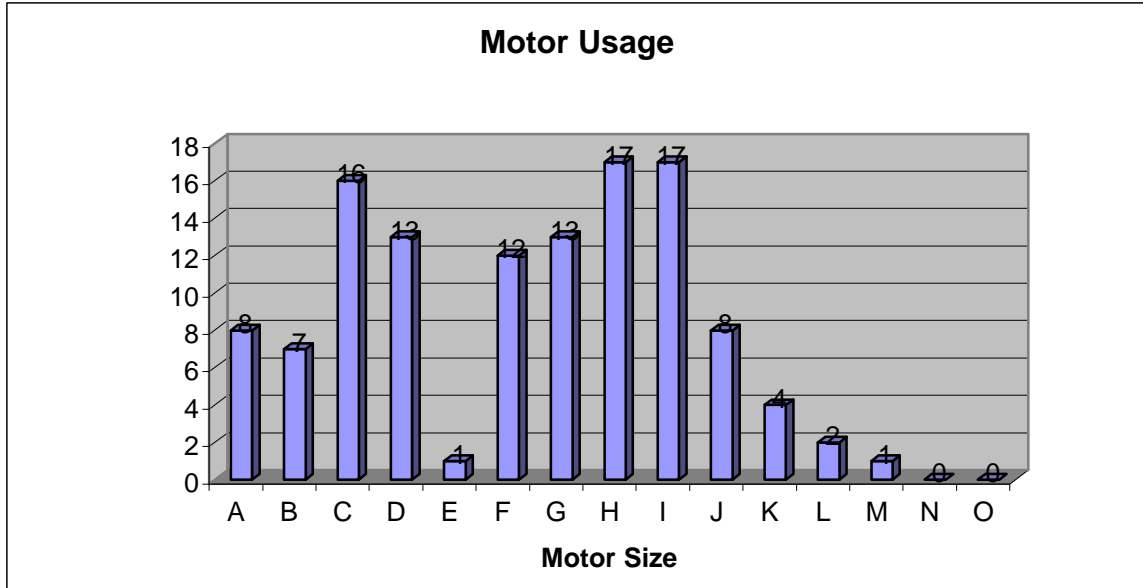
Flyer		Manufacturer	Model	Motors	Result
15-Jul-01					
Baker	Alex	Estes	Whiplash	C6	
Baker	Alex	Estes	Star Wars	C6	
Baker	Alex	Estes	I Don't Know	D12	
Baker	Alex	Estes	Whiplash	C6	
Bowman	Ashley	Estes	Athena	B6	
Bowman	Ashley	Quest	UFO	C6	
Bowman	Ashley	Estes	Banshee	C6	
Bowman	Ashley	Estes	Alpha 3	B6	
Bowman	Ashley	Estes	Fire Flash	C6	
Bowman	Ashley	Estes	Mini Mars Lander	A10	
Brun	Ed	Scratch	Air Walker	G64	
Brun	Ed	PML	Ariel	H128	
Bullis	David	Scratch	The Flame of Eternal Light	B6	
Carrington	Clark	PML	Amraam 2	H165	
Carrington	Clark	PML	Cirrus Dart	H242	
Carrington	Clark	Estes	Super Big Bertha	F12	
Carrington	Clark	Estes	Sentinal	D12	
Carrington	Clark	PML	Mini BBX	H180	
Carrington	Clark	PML	Endeavor	J420	
Clasing	Kevin	Aerotech	Mustang	F20	
Clasing	Kevin	Aerotech	Mustang	F20	
Clasing	Kevin	Aerotech	Mustang	F20	
Davidson	Bill	Scratch	Star Duster	M2240	
Davidson	Bill/Colin	Scratch	Swamp Rat	H155	
DeStefano	Guy	Scratch	Ray of Light	I284	
DeStefano	Guy	Scratch	1/4 scale Patriot	I357	
DeStefano	Guy	LOC	Warlock	I435	
DeStefano	Guy	LOC	I-Roc	I357	
Gilliand	Kathy	Aerotech	Initiator	G80	
Gilliand	Kathy	Estes	Phython	D12	
Gray	Augie	LOC	Mini Magg	H180	
Gray	Augie	Estes	Miss Grizzly	B6	
Guess	Mitch	PML	Endevour Stretch	J415	
Guess	Mitch	Scratch	Soclec Cone	D12	
Guess	Mitch	LOC	Expediter	I161	
Guess	Mitch	LOC	Expeditor	H180	
Guess	Mitch	Estes	Redstone	C6	
Guess	Mitch	LOC	Graduator	F40	
Hail	Eddie	Estes	Little Eddie	A10	
Hail	Eddie	Estes	Little Eddie	A10	
Hail	Kayla	Estes	"Little ""X""	A10	
Haile	Kayla	Estes	Little Bop	A10	
Hale	Eddie	Estes	Eddie Again	A10	
Hickok	Richard	Scratch	Harpoon	E15	
Hickok	Richard	Scratch	Kilter	D12	
Hickok	Richard	Edmonds	Dee-Cee Thunder	D12	
Hickok	Richard	Scratch	Avibruss	C6	
Hickok	Richard	Edmonds	Deltie 150	C6	
Hickok	Richard	Edmonds	Dee-Cee Thunder	D12	
Holt	Keith	Aerotech	Arcas	G40	
Holt	Keith	Aerotech	Arcas	G80	
Holt	Keith	Aerotech	Arcas	F50	
Liss	Dave	Scratch	Crayon	H124	
Liss	David	Scratch	Stretch Crayon	I161	
MacDonald	Tom	Scratch	Viper	J330	*Cert 2*
McCluskey	Scott	PML	Tethys	H180	
McCluskey	Scott	Thoy	Phoenix	I211	
McCluskey	Scott	Thoy	Phoenix	I218	
McCluskey	Scottt	PML	Amraam	J275	
McGilvray	Neil	Scratch	Socially Un-Acceptable	K550	
McGilvray	Neil	Scratch	Slam Dance	K700	
Melling	Stephen	Scratch	Max Arrow	D12	
Melling	Stephen	Estes	Super Nova Payloader	D12	
Melling	Stephen	Scratch	Pap Quark	B4	
Mitchell	Kevin	Scratch	Black Brant II	I218	
Moffett	Lindsey	Estes	Scrambler	C6	"Eggloft, no cracks"
O'Sullivan	Jerry	Scratch	Sandhawk	L850	

Flight Log July 15 , 2001 ESL #42

Flyer		Manufacturer	Model	Motors	Result
Potter Jr.	Jeff	Estes	X-Ray	A10	
Potter Jr.	Jeff	Estes	MK-109	B4	
Potter Jr.	Jeff	Scratch	Check Six	D12	
Potter Jr.	Jeff	Estes	Sizzler	A10	
Potter Jr/Bowman	Jeff/Ashley	Scratch	Crayon	H210	
Roberts	Rob	LOC	EZ I	I211	
Roberts	Rob	LOC	Graduator	H238	
Roberts	Rob	Estes	Big Daddy	F24	
Ruzzi	Joe	Scratch	Asroc	D12	
Ruzzi	Joe	Scratch	Sandhawk	G40	
Ruzzi	Joe	Scratch	Aero Dart	F23	
Ruzzi	Michael	Estes	Arv Condor	B6	
Ruzzi	Michael	Estes	Amraam	C6	
Ruzzi	Michael	Scratch	Black Brant III	F23	
Schumacher	Fred	Scratch	USA	J800	
Schumacher	Fred	Scratch	Miss USA	I435	
Schumacher	Fred	Scratch	Overkill	L850/J350	
Sechrist	George	Scratch	"4"" Mosquito"	H112	need bug spray?..
Sechrist	George	LOC	Minnie Magg	H125	
Sechrist	George	Scratch	Candy lane	G38	
Sechrist	George	Aerotech	Initiator	F40	
Sechrist	George	LOC	Viper IV	D12/D12/D12/D12	
Stafford	Dick	Scratch	Fat Boink	C6	
Stafford	Dick	Scratch	Lazarus	I285	
Stafford	Dick	Scratch	Land Shark	J350	
Stafford	Dick	Scratch	V2	G80	
Stafford	Dick	Scratch	G125	D12	
Stafford	Dick	Scratch	IBM Formatted	G80	
Super	Rob	Scratch	Navagitor 8	J350	
Thomson	Alex	NCR	SA-14 Archer	G80	
Thomson	Alex	Aerotech	Strong Arm	G40	
Utley	Bob	Scratch	Unruly	H124	
Utley	Robert	Scratch	Remains	C6	
Utley	Robert	Estes	Snitch	C6	
Wallace	Fred	Scratch	Two Banger	I357	
Wallace	Meagan	Scratch	Lil 'Wahoo	G35	
Wallace	Meagan	Scratch	Independence	C6	
Walls	Fred	Aerotech	Cheetah	F23	
Walls	Fred	Aerotech	Cheetah	F23	
Walls	Fred	Estes	Fire Streak	C6	
Warpinski	Jack	LOC	Forte	G97	
Weber	David	Weber Eng.	Specila Delivery	G38	
Weber	David	LOC	Minnie Magg	H123	
Weber	David	Cluster R	Skyraider	K550/I357	
Winazak	Wayda	LOC	Cool Dude	H123	
Winazak	Wayde	PML	Jurassic Spark	I357	
Winazak	Wayde	PML	Air Wave	H242	
Z	Larry	LOC	I-Rock Silo	I284	
Z	Larry	Scratch	Black Window	K777	

A	8	20
B	7	35
C	16	160
D	13	260
E	1	40
F	12	960
G	13	2080
H	17	5440
I	17	10880
J	8	10240
K	4	10240
L	2	10240
M	1	10240

119 TOTAL MOTORS 60835 NEWTON/SECONDS



Atlantic	0		
Aerotech	11		
Apogee	0		
Binder	0		
BSD	0		
Centuri	0		
Cluster R	1		
Custom Rockets	0		
Dynacom	0		
Edmonds	3		
Estes	29		
Hawk Mountain	0		
High Flight Tech	0		
Hobby Lab	0		
Impulse Aero	0		
JD Cluster	0		
LOC	13		
Launch Pad	0		
MSH	0	116	15-Jul
NCR	1		
Neubauer	0	116	Total Flights
PML	10		
Pratt Hobbies	0		
Public Enemy	0		
Quest	1		
Rocketman	0		
Rocket R&D	0		
Rocket Teck	0		
Rogue Aero	0		
Rocket Vision	0		
TCB	0		
Thoy	2		
True Modeler	0		
Scratch	44		
Smokin Rockets	0		
V.B.	0		
Unknown	0		
US Rockets	0		
Weber Eng.	1		

116 TOTAL ROCKETS

Flight Log August 19, 2001 ESL #43

Flyer		Manufacturer	Model	Motors	Result
Baker	Alex	Estes	Banshee	C6	
Baker	Alex	Estes	Red Dragon	D12	
Baker	Alex	Estes	Red Dragon	D12	
Baker	Alex	Estes	Navy	C6	
Baker	Alex	Estes	Banshee	C6	
Brun	Ed	Scratch	Bits N Pieces	I211	
Brun	Ed	Scratch	Gone Plum Loco	J420	
Clasing	Kevin	Aerotech	Sumo	H128	
Clasing	Alexandra	Aerotech	G-Force	G80	
Clasing	Kevin	NCR	Eliminator	F20	
Clasing	Alexandra	Aerotech	G-Force	G80	
Deaver	Gary	Scratch	Pioneer	I211	
Deaver	Gary	PML	D-Region Tomahawk	I435	
Deaver	Gary	Scratch	Nike Hercules	G80/F62	
Deaver	Gary	Scratch	Aero-Hawk A45	H180	
DeBey	Mike	Estes	2acks Rocket	C6	
DeBey	Mike	Scratch	Chao 2	F24	
DeBey	Mike	PML	Stretch Explorer	I161	
DeStefano	Guy	LOC	I-Roc	I284	
DeStefano	Guy	LOC	I-Roc	I284	
DeStefano	Guy	LOC	Warlock	I435	
Galysh	Ivan	PML	Endeavor	J175	*Cert 2*
Galysh	Ivan	PML	Endeavor	J175	*Cert 2*
Gilliand	Kathy	Estes	Impulse	D12 (2)	
Gilliand	Kathy	Estes	Python	D12	
Gilliand	Kathy	Scratch	Sunseeker	J650	
Gleiter	Justin	Thoy	Falcon	I360	
Gleiter	Justin	Thoy	Falcon	H136	
Guess	Mitch	LOC	Graduator	F40	
Guess	Matt	LOC	Expediter	I161	
Guess	Mitch	Rocket Vision	Spitfire	D12	
Guess	Mitch	LOC	IV	H180	
Guess	Mitch	Estes	Amraam	C6	
Guess	Mitch	Aerotech	Arcas	G64	
Holt	Keith	Aerotech	Sumo	H128	*Cert 1*
Holt	Keith	Aerotech	Arcas	G38	
Holt	Keith	Aerotech	Arcas	G35	
Koch		Estes	Nicholas I	A8	
Koch		Estes	Nicholas II	A8	
Koch		Estes	Janice I	B6	
Koch		Estes	Nicholas I	B6	
Koch		LOC	Doug 1	G40	
MacDonald	Tom	Scratch	Viper	J330	*Cert 2*
McGilvray	Neil	Scratch	White Trash	J650	
Miller	Elaine	PML	Endeavo	J400	
Nuwer	Chris	Scratch	Firestorm 54	H123	*Cert 1*
O'Sullivan	Jerry	Scratch	Murphy's Law	J460	
O'Sullivan	Jerry	PML	Leap	J200	
O'Sullivan /Schworer	Jerry/Bill	Scratch	Murphy's Law	J415	
Overfield	Scott	PML	Callisto	F40	
Overfield	Scott	PML	Callisto	F40	
Proseus	Ted	Scratch	Extreme 66	J235	
Proseus	Ted	Scratch	Yellow	I120	
Proseus/Wright	Ted/Darren	Scratch	Blue K Motor 2500ns	K2500	Motor test
Ritz	John	Scratch	Fonter	I255	
Roberts	Rob	Scratch	Franken-Dart	G104	
Roberts	Rob	LOC	Vulcaite	H210	
Roberts	Rob	Estes	Falcon	D24	
Roberts	Rob	Scratch	Franken -Dart	G64	
Rodilosso	Tom	Estes	Air to Air Missile	D12	
Rodilosso	Tom	Estes	Air to Air Missile	E30	
Ruzzi	Joe	Scratch	Sandhawk	G35	
Ruzzi	Joe	Scratch	Excel	H70	
Ruzzi	Joe	Scratch	Asroc	D12	
Ruzzi	Joe	Scratch	Upscale Yellow Jacket	F20	
Schmitt	Taylor	Estes	Silver Comet	D12	
Schmitt	Taylor	Quest	Nike Smoke	C6	

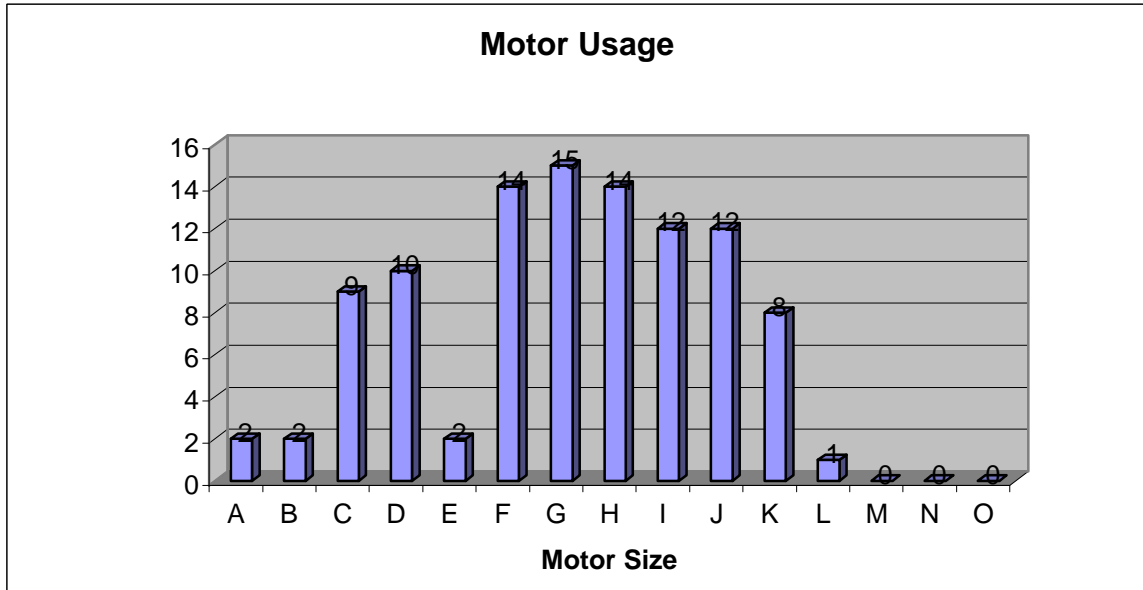
Flight Log August 19, 2001 ESL #43

Flyer		Manufacturer	Model	Motors	Result
Schmitt	Taylor	Estes	The Nothing	C6	
Schmitt	Taylor	Scratch	Pooper Scooper	C5	
Scrimgeour	Kevin	Aerotech	Red Hot N Blue	30	
Scrimgeour	Kevin	Aerotech	Stars N Strips	F20	
Scrimgeour	Kevin	PML	Bis Blue	H180	
Scrimgeour	Kevin	Aerotech	Stars N Strips	F20	
Scrimgeour	Kevin	Aerotech	Red Hot N Blue	F72	
Scrimgeour	Kevin	Scratch	Navy #1	H97	
Scrimgeour	Kevin	Estes	Navy 7	G75	
Scrimgeour	Kevin	Estes	Lawn Dart	E15	
Scrimgeour	Kevin	Aerotech	Stars N Strips	F23	
Scrimgeour	Kevin	Estes	Stubie	F72	
Sechrist	George	Scratch	Candy Cane	G35	
Sechrist	George	Scratch	"4" Masquito"	H112	"Nice rocket, paint"
Singer	Gary	PML	1/4 Patriot	I200	
Singer	Gary	Aerotech	Mustang	G40	
Super	Rob	Scratch	Navigator G	K1100	
Taylor	Nikki	Estes	V2	D12	
Taylor	Nikki	Estes	Honest John	C6	
Taylor	Robert	Scratch	Skrike	J350	
Truitt	Norwood	Scratch	Double Trouble	H124	
Utle	Bob	Scratch	Unruly	H124	Lost happy FredS.?
Utle	Bob	Scratch	Primo	K700	
Wallace	Fred	Scratch	After Magnum	K750	
Wallace	Fred	Scratch	Short Stuff	L850	
Walls	Fred	Aerotech	Yellow Jacket	F23	
Walls	Fred	Aerotech	Cheetah	G38	
Walls	Fred	Aerotech	Yellow Jacket	F23	
Warpinski	Jack	LOC	Forte	G54	
Warpinski	Jack	LOC	Bruiser	K700	
Warpinski	Jack	LOC	Forte	H180	
Weber	David	Rocket R&D	Skyraider	K550	
Young	David	PML	U S Navy	K1100	
Z	Larry	LOC	Magnum #2	K700	

A	2	5
B	2	10
C	9	90
D	10	200
E	2	80
F	14	1120
G	15	2400
H	14	4480
I	12	7680
J	12	15360
K	8	20480
L	1	5120
M	0	0
N	0	0
O	0	0

101 TOTAL MOTORS

57025 NEWTON/SECONDS



Atlantic	0		
Aerotech	0		
Apogee	0		
Binder	0		
BSD	0		
Centuri	0		
Cluster R	0		
Custom Rockets	0		
Dynacom	0		
Edmonds	0		
Estes	23		
Hawk Mountain	0		
High Flight Tech	0		
Hobby Lab	0		
Impulse Aero	0		
JD Cluster	0		
LOC	12		
Launch Pad	0		
MSH	0	101	19-Aug
NCR	1		
Neubauer	0	101	Total Flights
PML	11		
Pratt Hobbies	0		
Public Enemy	0		
Quest	1		
Rocketman	0		
Rocket R&D	1		
Rocket Teck	0		
Rogue Aero	0		
Rocket Vision	1		
TCB	0		
Thoy	2		
True Modeler	0		
Scratch	33		
Smokin Rockets	0		
V.B.	0		
Unknown	0		
US Rockets	0		
Weber Eng.	0		
	101	TOTAL ROCKETS	

November 2001

Rocketry Calendar

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday																																																																																											
<table border="1" style="display: inline-table; margin-right: 20px;"> <caption>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></td></tr> <tr><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td><td>13</td></tr> <tr><td>14</td><td>15</td><td>16</td><td>17</td><td>18</td><td>19</td><td>20</td></tr> <tr><td>21</td><td>22</td><td>23</td><td>24</td><td>25</td><td>26</td><td>27</td></tr> <tr><td>28</td><td>29</td><td>30</td><td>31</td><td></td><td></td><td></td></tr> </table> <table border="1" style="display: inline-table;"> <caption>December</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></td><td></td><td></td><td></td><td>1</td></tr> <tr><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td></tr> <tr><td>9</td><td>10</td><td>11</td><td>12</td><td>13</td><td>14</td><td>15</td></tr> <tr><td>16</td><td>17</td><td>18</td><td>19</td><td>20</td><td>21</td><td>22</td></tr> <tr><td>23</td><td>24</td><td>25</td><td>26</td><td>27</td><td>28</td><td>29</td></tr> <tr><td>30</td><td>31</td><td></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						1	2	3
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4	5	6	7	8	9	10 <small>Coverdale or Rhodedale Launch</small>																																																																																											
11 <small>Coverdale or Rhodedale Launch Veterans Day</small>	12	13	14	15 <small>MDRA Meeting</small>	16	17 <small>Price Launch Whitakers Launch</small>																																																																																											
18 <small>Price Launch Whitakers EXP Launch</small>	19	20	21	22 <small>Thanksgiving</small>	23	24																																																																																											
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