



M.D.R.A. Report

Volume 6, Number 5



Cover: Rick Oasen Amraam. Photo by Rick Oasen.

Editor's Corner :

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Editor Bob Utley

Well where are we now. Seems the endless battle with the ATF will never be over. Aerotech is just stating to get motors out the door of their new factory. And the weather is cold, windy, raining or something we can't fly in.

So down to the workshop to re-invent the wheel.

Not many folks know this but just about every weekend I have a rocket party of some type. Guys and girls, kids and the like come over to work on rockets. Anything from fiber glassing the body tube, to building the payload section. Cutting fins, making centering rings or balkplates. To painting the finish rocket.

There are some that come over to find out what it takes to make your own motors. As they say, "how hard can it be, Bob does it". We make all kinds of motors from H's to O's. There are the blue, red and white loads and all kinds in-between.

I may not be able to help fliers much at the field due to helping with the launch equipment and wanting to get my own rocket off the ground. This gives me the opportunity to help flier on a more one to one. It also lets them talk to other, more experience fliers, that come over.

There is also the social side too. We have a spread of chips, dips, cheeses and something like fried chicken so that you can eat when your waiting on something to dry. The girls get together and the kids play. This time of year there is always some football game on. If not then it's rocket tapes till they wear out.

The point being is I'm sure there are other rocket parties going on elsewhere. See if you can find one and go to it. There is some good advice and a place to see what you can't understand in an email or newsgroup sometimes.

So on to the newsletter and seeing your name in print....

ESL #65 Sod Farm 9/6 & 9/7

Warm weather and blue skies graced the MDRA once again at the Warpinski's Central Sod Farm. Over the two days 276 motors were burn and some were actually flown inside of rockets.

On Saturday, 9-6-03, Bill Brown beat a path to the pads with 6 launches in the F and G range with his Sub Zero, X-Caliber and Iris. Russell Brown launched his Chrome Dome 14 times for what must a new MDRA record for launches of the same rocket in one day. Congratulations Russell. When you get older I want to see you do it with M motors. Bruce Canino launched his Sumo on a G-80. The Coleman family, Bob, Brittany and Joey got in five flights, in partial thanks to Fred Schumacher with his Over Kill 2. Over Kill 2 flew 3 times on F-20 power and Goliath flew twice on B-6 power. Chris Cox got in two flights on B-4 power. Jim Cox doubled that with 4 flights. In the C to H range.

Rick Emilio launched his Air Bud on a C-6. Mark Eurek was looking skyward five times with a trail of D to G power. Rob Friemayer matched that with five flights of his own on A to C power. Justine Gleiter busted off his Osprey on a J-1200 for some supersonic highflying fun. Richard Hickok trudged out to the pads six times flying between the Band G power level. Amber Hooker had a trio of launches in the F, G and I range. Jeff Hooker had 3 ½ flights; partially due to the high speed dis assembly of his Eclipse on J-350 power. You never know where those Gremlins are going rear their ugly heads. One thing is for sure; they can and will find their way into your rocket when you least expect it. Robbin Hooker flew Silver Streak on a F-20. James Kelly shot Weasel into the air on a G-38 and Dad, Kevin, launched his M&M on a BMW K-700 for a nice smokey flight.

Bob Lussier rolled to the pads twice with his 4-29-SS on twin G-80 and F-50 power. Bob also launched his Big Brute on a F-50. Rick Oasen launched his Arrow on a F-25 and his Amraam 4 on an I-350. The Amraam was set up to snap a picture of the

rocket as it left the pad and the result was as planned. Kenny Paduch had the Estes pads cranking with seven flights. Joe and Michael Ruzzi combined for in the A to G range. Fred Schumacher kicked Overkill 4 in the butt with another nice flight on a BMW K-700 White Load. Dick Stafford slept well after his 10 trips to the pads. Dick launched everything from flying Hats to vehicles that actually looked like rockets. George Tiger got in three launches flying his Bull pup, Shadow and Tomahawk on F and G power.

Nelson Wallace was ratcheting up the power level with his Ariel on an I-205 and his Bruiser EXP on a K-700, yes a real one...if there is still such a thing. Dave Weber took time from his Presidential duties to fly three times. Dave flew his Norad, and V-2 on a G and I motor respectively. Dave also began to send Tuber up on the on his alphabet flights, since the streak ending flight 153. Dave continued the flights with 153-A. Chuck Yslas got in eight Estes flights to round out the days flying.

Sunday, 9-7-03, really brought out the troops. Bill Alewine launched three times between the G and H range. Dave Alewine doubled that effort with six flights from G's to clusters of J's and G's. Mariah Alewine got one rocket into the air on an E-30. William Alewine was looking up twice with his two Estes flights.

Dave Bathras had what was to be one of the premier flights of the launch that was never to be. Daves launch of his Level 3 rocket Black Brant II was cut short and quickly thrown into the Really Cool realm. Dave was launching the rocket on his version of Blue 22 in a M-2000. All things started normally then the button was pushed. That simple act started a sequence of events all present will not soon forget. The big M motor broke through the motor adapter and exited out the side of the rocket shortly after it cleared the tower. As the rocket was being dis assembled the continued across the field for a couple of hundred feet when it CATO'ed and blew bits and pieces toward the woods. Once again the safe distance that we employ protected the spectators from the "coolness" of the attempt. Dave plans to rebuild and re-fly the B.B.II and we'll be there to watch.

Kemp and Tucker Broujos combined for four Este's flights. Bill Brown was back again on this fine Sunday for five more

flights in the F to G range. Don Brown launched eight times in the E to G range. Russell Brown was wearing another path to the Estes rack with 10 more flights. Chris Cox had his Baby Bertha in the air with a C-6 for the power plant. Jim Cox did a 4-F cluster in his Viper IV and two other flights in the F and G range. Andrew Coyhian had his G-Force in the air twice with G-35's. Glenn Davis got in three lower powered flights in the F and G range before his joint project with the head Bozo himself, Bob Utley. Glenn and Bob joined forces to fly Glenn's PAC III on a BMW K-700. Mike deBey was another Bozo on the bus as he flew his Stretch Explorer on a BMW White I-200. Mark Eurek got on four flights in the C to G range.

Kathy Gilliland took some time out from liberating money from people's pockets to actually fly a rocket. Kathy flew her Star Gold on a BMW K-450 white load. Justin Gleiter had another one of his high velocity neck cracking fights on J-1000 in his Osprey. John Gramick had four flights in the F and G range. Richard Hickok was a busy beaver with 10 flights off the A and the B rack. Maggie Hier beat dad Tom with three flights of her Alpha to Tom's one. Tom flew his Nike Smoke on a K-530 for a nice flight. Keith Holt was waiting for a bigger field as he limited his flying to two flights in the F and G range.

Steve Hutchinson blasted his Miranda off with a H-242. Kevin Johnson was hooking up igniters eight times on everything from his Deuces Wild on two C-6's to his V-2 on a H-180. James Kelly got in two flights with his Skywinder and his rocket called Weasel. Kevin Kelly got in a nice BMW K-450 red flight in on his M&M rocket. Sean McCorkle flew his Aura on a F-20 and his Javelin on a G-75. Neil McGilvray flew 38-pound Bone Daddy on a L-1200 to 3,400 feet. Maerbi Okechuko had two flights on G-80 power. Dave Olson flew his Comanche on a d-12 flight and then a d-12, C-6, C-6 three-stage flight. Dave also had two other F-20 flights.

Gerry O'Sullivan flew his Ntropy on a L-630 for a nice flight. Kurt and Mariah Petrucci flew one rocket each in the D and c range respectively. Ted Proceus had his Nike Smoke screaming skyward on his Blue 22 mixture in the form of a K-450. Steve Reeves launched his Bull Pup on G-20

power. Rob Roberts launched twice. Once with his Un-Ezi on an I-222 and his Lil' Nuke on a G-140. Ed Romani launched his Cinching on a J-350 for a high smokey flight. Fred Schumacher got baited into another drag race with Bob Utley with his Over Kill 4. Bob flew his lighter and more aerodynamic Sand Hawk. Both rockets were powered with BMW K-700's of Bob's making. Gee I wonder which one Bob put in his rocket? Fred also launched his Over Kill 2 on a F-20, how quaint? Allie and Dad Kevin Scrimgeour combined for 16 flights on everything from a C power to G power. George Sechrist had three flights on his Initiator and one flight on his Minnie Magg. Tommy Swami flew his rocket named Trash Can on a B-6. Nikki Taylor flew her V-2 on a D-12. Eric Thesins flew his Barracuda 3 times on F-20 power. George Tiger had four flights in the G power range. Norwood Truitt flew his Gnarly on a K-300. Bob Utley beat the "Pants" off Fred Schumacher in their K-700 BMW drag race. Bob also did some static testing of potential Liberty Project propellant formulations with the new Liberty Project Load Cell to measure thrust and the Pressure Transducer to measure internal casing pressure simultaneously.

Fred Wallace was on the flight line three times with his Mag-It on an I-300, 5X4 on a K-220 and his ½ Magt on a H-260. Nelson Wallace flew three times also in the G to J range. Ben and Nick Warpinski combined for six flights on B and C power. Dave Weber flew his Ugly For Now on a BMW K-450 Pink load. Dave and Lynn Reamy joined forces to fly Lynn's Tabitha on a H-128. Chuck and Jim Williams flew Little P three times on a B-6. Cory, Kristin, and Tom Yoviene combined for seven flights in the B and C range. One of the flights was with the help of Fred Schumacher with his Over Kill 2 on a F-20. Larry Zupnyk flew his Oct Max on a J-1200. Rob, what's his name, flew his Green Goblin on a J-350.

Once again we extend our appreciation to the Warpinski's for the generous use of the Central Sod Farm. All in attendance had a great weekend. Remember this is your club also and we can always use your help in all aspects of running these launches.

Neil McGilvray

ESL #66 Sod Farm 10/4 & 10/5

It has been an unprecedented summer season at the Central Sod Farm and in no small part this is due to the generous use of the land that the Warpinski's make available to us. And to that the membership of the MDRA says thank you, many times over. This is typically the transitional time of year when crops are coming down at Higgs, Rhodesdale and Coverdale. Normally we are in a holding pattern waiting to see which field becomes available first. No need this year, we are still at the Sod farm and instead of wishfully thinking what could have been, we are launching rockets.

Saturday was a perfect warm fall Maryland weekend that made you appreciate the Mid Atlantic weather. When it's not raining it can't be beat. Bob, Brittany, Joey and Michael Coleman combined for seven flights flying C-6's and F-21's. Glenn Davis launched his D.B. N. P. on a G-35 and his Shoulda-Coulda-Woulda on a F12. Randy Ejma was up from Southern Virginia to launch two rockets, his Heat Rises on a H-100 and Patriot on a J-650. Randy also got in a couple of static tests on H-100 motors of his making. Angelica and Robert Friemayer combined for seven flights in the A to G power range. Richard Hickok wore his normal path to the A rack with six flights. Maggie Hier had four A motors she needed to burn up in her Sky Dive and Alpha Rockets. Dad Tom Hier had slightly bigger expectations with his Nike Smoke on a K-530.

James Kelly busted off his Arcas on a F-20 while Dad, Kevin Kelly went for a neck cracking flight with a BMW red load in his M&M rocket. John Ritz went for multi colors with his J-600 in a modified LOC Forte'. George Tiger was looking skyward with his HV Arcas on a G-35. Bob Utley was hobbling around the flight line with seven static tests in an effort to determine how slight changes to the Blue 22 formula change performance. Nelson Wallace launched his Mirage D on a G-64.

Sunday would be the final Launch day of the 2003 season at the Central Sod

Farm and the weather Gods were approving of our activities for a change. Dave and Bill Alewine combined for nine flights on everything from an E motor to a K motor. Quite an inventory of rockets and motors that provided for some nice flights. Nikki Brewer flew her Nike Smoke on a c-6. Bill Brown flew five times on Sunday. Most notably was his Level 1 Certification flight with his rocket called Sub Zero. Congratulations Bill, now you can really start to empty your pockets and give all of you money to Kenny. Carl Bryant was flying his Initiator and Strong Arm on G power for three flights. Glenn Davis was flying four times on this fine day. The most notable was his joint project with Fred Schumacher and Bob Utley helping out with the flight of Glenn's PAC III on a BMW K-450 Blue 22. Now that they have the up part down pat, Glenn needs to work on the down part.

Randy Elma had two flights on his Magnum with a J-400 and his Patriot on an I-270. Ivan Galysh was flying the Rattworks Hybrid System in his 4-29ss, powered by a H-90. Kathy Gilliland flew lost and eventually found her 2 the Stars on a BMW Red K-450. Light rocket, big motor equals high flight. Gee, even I know that. John Gramick had four flights in the F and G range. Richard Hickok was getting his moneys worth on this warm fall day with six flights in the C to F power range. Richard flew everything from rockets to rocket powered gliders for some fun flights. Maggie Hier had her Sky Dive back in action for four more B flights. Keith Holt was burning up the F motors with three flights. Joseph, Jack Alex and Turner combined for five B and C powered flights. Sean McCorkle flew three times using F and G power plants. Peter McLaughlin had his C powered Tidal wave in the air twice. Neil McGilvray launched Bone Daddy on a L-1200 reddish flame sort of smokey motor for a nice flight despite the rather noisy recovery. Curt Newport, Mr. "I'll find anything as long as I have side scanning sonar" got in three flights on his Viper, most notably his Level One Certification. Way to go Curt!

Joseph Nicolas flew four times in the A to F range for a nice variety of flights. Rich Oasen was at the pads three times. Richs most involved project was his automatic launch picture camera that caught his Amraam perfectly, close up as it left the rod on an I-285. Kenny Paduch had four

Band C flights. Kurt Petrulli joined the Level One Certification Club with his successful flight of his Minnie Magg. Congratulations Kurt, welcome aboard. John Ritz was characterizing some of his home brew formulations with five static tests. Fred Schumacher had heads turning with his flight of Over Kill 4 on a BMW K-400 Red Load. Ross Sorci got in seven flights in the C to G range for some great flights. Dick Stafford launched seven times and some of the flights actually looked like rockets and more importantly they actually flew like rockets. Jack Stopack got in five B, C and D flights. Nikki Taylor flew twice with here Standard ARM and V-2 on C and D power respectively. George Tiger had his Shadow, G-Force and Tomahawk in action for some good flights in the E, H and G range.

Fred Wallace decided to go old school with his Regulate This on a Vulcan K-500. Fred is known for his finely detailed rockets. However there is one detail that was not anticipated. The Old Vulcan calling 1-800-KaaBoom! As the rocket left the pad the motor decided that this might be a good time to give up the ghost. I have no doubt that Fred would disagree with the motor. Nelson Wallace flew his Phobos on a G-64 and his Endeavor on an I-205. Ben, Nick, Kemp, and William Warpinski got in 4 perfect C flights. Dave Weber had his usual variety of rockets to be launched. One in particular was the 40th anniversary Estes Alpha launch. This rocket was to be handed state to state until it had been flown in all 50. The Alpha, showing some signs of wear, was launched twice on a A-8 and I can proudly say that the MDRA passed it on intact for the next flight in another state. Dave also flew his Sticker Shock on an I-284 and his Skyraider on a L-1800 BMW Mark Lloyd load for nice loud flight.

Gerry Willis joined the ranks of the "Certified" with his successful flight of his W-2 powered by a H-125. Congratulations Gerry! Level II is not far behind. Gerry also got a few smaller B powered rockets in the air. Colleen Wilson flew her Patriot on a C-6 for a nice flight. Darren Wright performed some ground shaking static tests with the successful firing of his Blue I-400 and the ground pounding M-1900 Aqua.

This wrapped up the "Summer" flying season at the Central Sod Farm. Many thanks to the Warpinski's for their

generosity. We look forward to many more successful seasons launching on one of the prettiest fields in all of HPR. Many thanks also go out to all of you that assisted with the preparation, tear down and operation of the launches all summer. You know who you are. Fly high and recover low.

Neil McGilvray

Interview: John Glenn

Due to conflicting schedules we could not interview Mr. Glenn.

PERFORMANCE HOBBY

<http://www.performancehobbies.com>

Don't forget that I stock "plenty" of Firefly, as well as Daveyfire igniters.

See you at a launch soon!

Ken

Phone (202) 723-8257, fax (202) 723-0010.



MDRA "Freedom" t-shirt for the Liberty Project.

NEXT ISSUES:

- More words from Neil.
- Launch report of Nov & Dec.
- Events for Jan & Feb.
- Review on Missile Works WWRC.
- Interview with a Woman in Rocketry.



MDRA newly designed hat in two styles of hats.

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

<http://www.mdrocketry.org/>

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Log September 6-7, 2003 ESL #65

Flyer		Manufacturer	Model	Motors	Result
Brown	Bill	PML	Xcaliber	G64	
Brown	Bill	Scratch	Sub-Zero	G64	
Brown	Bill	Yank	Iris	G64	
Brown	Bill	Scratch	Sub-Zero	G64	
Brown	Bill	Estes	Iris	F40	
Brown	Bill	Yank	Iris	G64	
Brown	Bill	Scratch	X Caliber	G64	
Brown	Russell	Estes	Chrome Domes	C6	
Brown	Russell	Estes	Chrome Domes	C6	
Brown	Russell	Estes	Chrome Domes	C6	
Brown	Russell	Estes	Chrome Domes	C6	
Brown	Russell	Estes	Chrome Domes	C6	
Brown	Russell	Estes	Chrome Domes	C6	
Brown	Russell	Estes	Chrome Domes	C6	
Brown	Russell	Estes	Chrome Domes	C6	
Brown	Russell	Estes	Chrome Domes	C6	
Brown	Russell	Estes	Chrome Domes	C6	
Brown	Russell	Estes	Chrome Domes	C6	
Brown	Russell	Estes	Chrome Domes	C6	
Brown	Russell	Estes	Chrome Domes	C6	
Brown	Russell	Estes	Chrome Domes	C6	
Canino	Bruce	Aerotech	Sumo	G80	
Coleman	Bob/Brittany	Yo-Yo	Overkill 2	F20	
Coleman	Bob/Brittany	Yo-Yo	Overkill 2	F20	
Coleman	Bob/Joe	Scratch	Overkill-2	F20	
Coleman	Bob/Joey	Estes	Goliath	B4	
Coleman	Bob/Joey	Estes	Goliath	B4	
Cox	Chris	Scratch	Party Hat	B6	
Cox	Chris	Estes	Baby Bertha	B6	
Cox	Jim	Scratch	Tri-Fo	F12	
Cox	Jim	MSH	V-2	H180	
Cox	Jim	Scratch	Super Bertha	G64	
Cox	Jim	Scratch	Hopeful One	"C6,C6,C5"	
Emilio	Rick	Estes	Air Bud	C6	
Eurek	Mark	Scratch	Yellow	D21	
Eurek	Mark	Estes	Shadow	F21	
Eurek	Mark	Aerotech	Cali	G35	
Eurek	Mark	Thoy	Diana	G35	
Eurek	Mark	Scratch	El Gordo	F21	
Freimayer	Rob	Estes	Sizzler	A3	
Freimayer	Rob	Estes	Don't Know	A8	
Freimayer	Rob	Estes	Hornet	C6	
Freimayer	Rob	Estes	SR-71	C6	
Freimayer	Rob	Estes	Blitz	A3	
Gleiter	Justin	Scratch	Osprey	J1200	rocks
Hickok	Richard	Scratch	Red Fox	G35	
Hickok	Richard	Scratch	Red Fox	G35	
Hickok	Richard	Scratch	AA-6 Acrid	F24	
Hickok	Richard	Scratch	A-10 Wart Hog	B4	
Hickok	Richard	Scratch	Vigilante	G35	
Hickok	Richard	Scratch	Yellow Jacket	G75	
Hooker	Amber	Aerotech	G-Force	F23	
Hooker	Amber	Scratch	Sky Writer	I161	
Hooker	Amber	Aerotech	Arcas	G80	
Hooker	Jeff	PML	Ptyrdctl Jr	H238	
Hooker	Jeff	PML	Eclipse	J350	
Hooker	Jeff	Aerotech	G-Force	G80	
Hooker	Jeff	PML	Matrix	I357	
Hooker	Robbin	Scratch	Sliver Streak	F20	
Kelly	James	Estes	Weasel	G38	
Kelly	Kevin	Scratch	M&M	K700	BMW WL
Lussier	Bob	LOC	4 29 SS	"G80,G80,F50,F50"	
Lussier	Bob	NCR	Big Brute	F50	
Oasen	Rich	Aerotech	Arrow	F25	
Oasen	Rick	PML	Amraam 4	I350	
Paduch	Kenny	Estes	Baby Bertha	B6	
Paduch	Kenny	Estes	Fat Boy	B6	
Paduch	Kenny	Estes	Big Daddy	E9	

Flyer		Manufacturer	Model	Motors	Result
Paduch	Kenny	Estes	Switch	C6	
Paduch	Kenny	Estes	Switch	C5	
Paduch	Kenny	Estes	Space Shuttle	C5	
Paduch	Kenny	Estes	Moon Lander	A10	
Ruzzi	Joe	Scratch	Upscale Sprit	G35	
Ruzzi	Joe	Scratch	Upscale Sprit	G35	
Ruzzi	Joe	Scratch	Groove Tube	F20	
Ruzzi	Michael	Estes	Shuttle Express	A8	
Ruzzi	Michael	Scratch	Barrier Breaker	D12	
Schumacher	Fred	Yo-Yo	Overkill 4	K700	BMW WL
Stafford	Dick	Scratch	Deuce XL5	"C6,C6"	
Stafford	Dick	Thoy	Snipe	"E9,E9,E9"	
Stafford	Dick	Art Applewhite	Delta Saucer	A9	Micro-Hybrd
Stafford	Dick	Scratch	Shai-Hulud	G40	
Stafford	Dick	Scratch	Rock Rocket	"D12,D12,D12"	
Stafford	Dick	Art Applewhite	Delta Saucer	F21	
Stafford	Dick	Scratch	Hat of Death	G35	
Stafford	Dick	Fliskits	Acme Spitfire	C11	
Stafford	Dick	Fliskits	Acme Spitfire	"D12,D12,D12"	
Stafford	Dick	PML	Small Endeavour	G80	
Tiger	George	Scratch	Bullpup	G64	
Tiger	George	Aerotech	Tomahawk	G40	
Tiger	George	Estes	Shadow	F39	
Wallace	Nelson	LOC	Ariel	I205	
Wallace	Nelson	LOC	Buser XP	K700	
Weber	David	LOC	Norad	G35	
Weber	David	LOC	V-2	I285	
Weber	David	Weber Eng.	Tuber	H100	Flight #153 1/2
Yslas	Chuck	Estes	Alfa	B6	
Yslas	Chuck/Rick	Estes	Little Pea	B6	
Yslas	Chuck/Rick	Estes	Little P	B6	
Yslas	Emilo	Estes	Alfa	C6	
Yslas	Emilo	Estes	Air Bud	C6	
Yslas	Rick	Estes	Super Fly	"D12,D12,D12"	
Yslas	Rick	Estes	Super Fly	"D12,D12,D12"	
Yslas	Ricky	Estes	Super Fly	"D12,D12,D12"	
7-Sep					
Alewine	Bill	Scratch	Acme	G69	
Alewine	Bill	Scratch	Copper Top	H143	
Alewine	Bill	Scratch	Silver Streak	G79	
Alewine	Dave	NCR	Lance Beta	G79	
Alewine	Dave	Scratch	V-2	J570	
Alewine	Dave	LOC	V-2	H153	
Alewine	Dave	LOC	Magnum	"J400,G35,G35"	
Alewine	Dave	LOC	V2	G69	
Alewine	Dave	PML	Quasar	H110	
Alewine	Mariah	Scratch	Black Lighting	E30	
Alewine	William	Scratch	October Sky	C6	
Alewine	William	Estes	Green Slime	E9	
Bathras	David	Scratch	Black Brant II	M2000	CoooooIIIIII
Broujos	Kemp	Estes	The Mini	C5	
Broujos	Kemp	Estes	Sun Slider	B6	
Broujos	Tucker	Estes	The Rocketeer	C5	
Broujos	Tucker	Estes	Sky Diver	B6	
Brown	Bill	Scratch	X Caliber	G80	
Brown	Bill	Yank	Iris	G64	
Brown	Bill	Scratch	Sub-Zero	G64	
Brown	Bill	Scratch	Sub-Zero	G80	
Brown	Bill	Yank	Iris	F40	
Brown	Don	Scratch	Quark On Sterolds	G35	
Brown	Don	Edmonds	Ecee Thunder	E9	
Brown	Don	Scratch	Broadsword	F39	
Brown	Don	Aerotech	IQSY Tomahawk	F20	
Brown	Don	Aerotech	Mustang	F20	
Brown	Don	Aerotech	Wart Hog	F20	
Brown	Don	Edmonds	Ecee Thunder	E9	
Brown	Russell	Estes	Chrome Domes	C6	
Brown	Russell	Estes	Chrome Domes	C6	
Brown	Russell	Estes	Chrome Domes	C6	

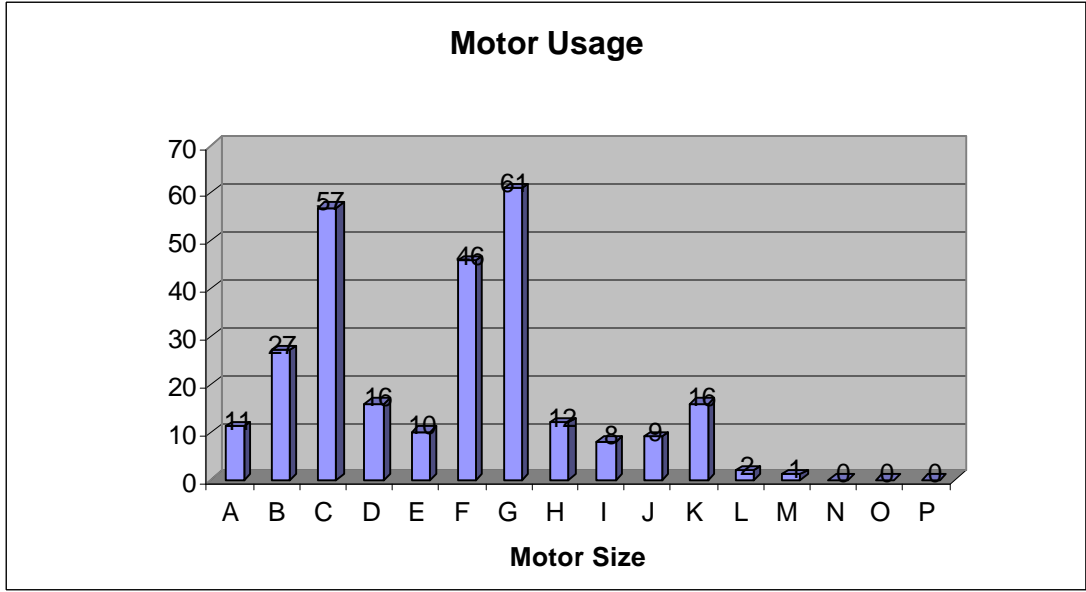
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Brown	Russell	Estes	Chrome Domes	C6	
Brown	Russell	Estes	Chrome Domes	C6	
Brown	Russell	Estes	Chrome Domes	C6	
Brwon	Don	Aerotech	Arcas	G35	
Canino	Bruce	Aerotech	Sumo	H128	*Cert 1*
Cox	Chris	Estes	Baby Bertha	C6	
Cox	Jim	LOC	Viper IV	"F21,F21,F21,F21"	
Cox	Jim	Scratch	Cow Moo Flauge	F21	
Cox	Jim	Scratch	No name	G40	
Coyhian	Andrew	Aerotech	G-Force	G35	
Coyhian	Andrew	Aerotech	G-Force	G35	
Davis	Glenn	Aerotech	Shoulda Coulda	F12	
Davis	Glenn	Aerotech	Wart Hog	G35	
Davis	Glenn	Scratch	D.B.N.P.	G80	
Davis/Utley	Glenn/Bob	Scratch	Pac-3	K700	
deBay	Mike	Scratch	Stetch Explorer	I200	BMW WL
Eurek	Mark	Scratch	Alpha 60	E9	
Eurek	Mark	Quest	DC-X	D21	
Eurek	Mark	Scratch	Diana	G35	
Eurek	Mark	Scratch	Aztec	"C6,C6"	
Gilliand	Kathy	Scratch	Star Gold	K450	BMW WL
Gleiter	Justin	Scratch	Osprey	J1000	
Gramick	John	LOC	Onyx	F20	
Gramick	John	PML	Bull Puppy 2.1	F23	
Gramick	John	Aerotech	Arreaux	F25	
Gramick	John	NCR	Phantom 4000	G40	
Hickok	Richard	Edmonds	I-Vee	A3	
Hickok	Richard	Edmonds	Eye-Vee	A3	
Hickok	Richard	Edmonds	Dee-Cee Thunder	D12	
Hickok	Richard	Scratch	Red Fox	G35	
Hickok	Richard	Scratch	Saturn I	C5	
Hickok	Richard	Edmonds	Geminee	A3	
Hickok	Richard	Scratch	A-10 Wart Hog	B4	
Hickok	Richard	Scratch	Big Jim & the Twins	E9	
Hickok	Richard	Scratch	Screw	C5	
Hickok	Richard	Scratch	A-10 Wart Hog	B4	
Hier	Maggy	Estes	Alpha 3	B6	
Hier	Maggy	Estes	Alpha 3	B6	
Hier	Maggy	Estes	Alpha 3	B6	
Hier	Tom	Scratch	Nike Smoke	K530	
Holt	Keith	Aerotech	Arcas	F25	
Holt	Keith	LOC	Onyx	G38	
Hutchinson	Steve	PML	Miranda	H242	
Johnson	Kevin	Edmonds	Cici Stage 2	"B6,A8"	
Johnson	Kevin	LOC	V-2	H180	
Johnson	Kevin	Scratch	Trireme	C6	
Johnson	Kevin	Binder	Excel Jr	G35	
Johnson	Kevin	Fliskits	Deules Wild	"C6,C6"	
Johnson	Kevin	Edmonds	Twinsee	C6	
Johnson	Kevin	Binder	Excel Jr	F23	
Johnson	Kevin	Fliskits	Deuce's Wild	"A8,A8"	
Kelly	James	Estes	Skywinder	C6	
Kelly	James	Scratch	Wessell	G38	
Kelly	Kevin	Scratch	M&M	K450	BMW Red
McCorkle	Sean	LOC	Aura	F20	
McCorkle	Sean	V.B.	Javelin	G75	
McGilvray	Neil	Scratch	Bone Daddy	L1200	
Okechuko	Maerbi	Scratch	Tommy	G80	
Okeuchuw	Larry	Scratch	From Above	G80	
Olson	Dave	Estes	Comanche	"D12,C6,C6"	
Olson	Dave	Comanche-D		D12	
Olson	Dave	Aerotech	Air Spike	F20	
Olson	Dave	Aerotech	Initiator	F20	
O'Sullivan	Jerry	Scratch	Ntropy	L630	
Petrucci	Kurt	Estes	Maniac	D12	

Flyer		Manufacturer	Model	Motors	Result
Petrucci	Moriah	Scratch	Flash	C6	
Proseus	Ted	Scratch	Nike Smoke	K450	Blue 22
Reeves	Steve	PML	Bull Puppy 2.1	G20	
Roberts	Rob	LOC	Un-Ezi	I222	
Roberts	Rob	LOC	Lil Nuke	G140	
Romani	Edward	Scratch	Chiching	J350	
Schumacher	Fred	Yo-Yo	Overkill 4	K700	BMW Red Dragrace
Schumacher	Fred	Yo-Yo	Overkill 2	F20	
Scrimgeour	Allie	Scratch	Blue Skies	D12	
Scrimgeour	Allie	Scratch	Sparkel	C6	
Scrimgeour	Allie	Scratch	Blue Skies	D12	
Scrimgeour	Allie	Scratch	Sparkel	C6	
Scrimgeour	Allie	Scratch	no name	D12	
Scrimgeour	Allie	Scratch	Blue Skies	E30	
Scrimgeour	Allie	Estes	Black Widow	C6	
Scrimgeour	Allie	Estes	Too Much	D12	
Scrimgeour	Kevin	LOC	Unfinished Business	G35	
Scrimgeour	Kevin	V.B.	Out-of-Hear	F25	
Scrimgeour	Kevin	V.B.	Purple Haze	F50	
Scrimgeour	Kevin	V.B.	Purple Haze	F50	
Scrimgeour	Kevin	V.B.	Big Red	E30	
Scrimgeour	Kevin	Aerotech	Red	F50	
Scrimgeour	Kevin	Aerotech	Stars-N-Strips	F50	
Scrimgeour	Kevin	LOC	Loc at me	F25	
Sechrist	George	LOC	Minie Magg	H112	
Sechrist	George	Aerotech	Initiator	F20	
Sechrist	George	Aerotech	initiator	F23	
Sechrist	George	Aerotech	Initiator	F20	
Swami	Tommy	Estes	Trash Can	B6	
Taylor	Nikki	Estes	V2	D12	
Thesing	Eric	Aerotech	Baracuda	F20	
Thesins	Eric	Aerotech	Baracuda	F20	
Thesivs	Eric	Aerotech	Baracuda	F20	
Tiger	George	Scratch	Bullpup	G64	
Tiger	George	Aerotech	Arcas	G35	
Tiger	George	Aerotech	Tomahawk	G40	
Tiger	George	Aerotech	Arcas	G40	
Truitt	Norwood	Scratch	Gnarly	K300	
Utley	Bob	Scratch	Sandhawk	K700	BMW WL
Utley	Bob	Scratch	Static fire	K450	Blue 22
Utley	Bob	Scratch	Static fire	K400	Blue 22
Utley	Bob	Scratch	Static fire	K20000	BMW slow Red
Wallace	Fred	Scratch	Mag-it	I300	
Wallace	Fred	Scratch	5X4	K220	
Wallace	Fred	Scratch	Half Mag-it	H260	
Wallace	Nelson	LOC	Phobos	G64	
Wallace	Nelson	LOC	Anram	J360	
Wallace	Nelson	Aerotech	Mirage D	G64	
Warpinski	Ben	Estes	Tidal Wave	C5	
Warpinsk i	Nick	Estes	No Name	C5	
Warpinski	Nick	Estes	The Wave	B6	
Warpinsk i	Will	Estes	Sky Diver	C5	
Warpinsk i	Will	Estes	Sky Diver	B6	
Warpinsk i	William	Estes	Sky Diver	C5	
Weber	David	LOC	Ugly for now	K450	BMW Pink
Weber/Reamy	David/Lynn	LOC	Tabitha	H128	
William	Chuck/Jim	Estes	Little P	B6	
William	Chuck/Jim	Estes	Little P	B6	
William	Chuck/Jim	Estes	Little P	B6	
Yoviene	Cory	Estes	The Eagle	C5	
Yoviene	Cory	Estes	Red Eagle	B6	
Yoviene	Kristin	Estes	Sky Rider	B6	
Yoviene	Kristin	Yo-Yo	Overkill 2	F20	
Yoviene	Tom	Estes	22 Tommy	B6	
Yoviene	Tommy	Estes	Foot and 3 inches	C5	
Yoviene	Tommy	Estes	Sky Buster	C6	
Zyphic	Larry	Scratch	Oct-Max	J1200	
	Rob	Scratch	Green Goblin	J350	

A	11	27.5
B	27	135
C	57	570
D	16	320
E	10	400
F	46	3680
G	61	9760
H	12	3840
I	8	5120
J	9	11520
K	16	40960
L	2	10240
M	1	10240
N	0	0
O	0	0
P	0	0

276	TOTAL MOTORS	96812.5	NEWTON/SECONDS
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Alien	0
Atlantic	0
Aerotech	32
Apogee	0
Art Applewhite	2
Binder	2
BSD	0
Centuri	0
Cluster R	0
Custom Rockets	0
Cosmo Drome Rocketry	0
Dynacom	0
Edmonds	8
Estes	83
Fliskits	4
Giant Leap	0
Hawk Mountain	0
High Flight Tech	0
Hobby Lab	0
Impulse Aero	0
JD Cluster	0
LOC	22
Launch Pad	0
Missile Works	0
MSH	1
NCR	3
Newton 3rd	0
Neubauer	0
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	86
Shrox	0
Smokin Rockets	0
V.B.	5
Unknown	0
US Rockets	0
Vertical Concepts	0
Weber Eng.	1
Yank	4
Yo-Yo Dyne	6
272	TOTAL ROCKETS



©J. O'Sullivan 2003
David Bathras rocket at DARE 2 on his sparkly motor.

Log October 4-5, 2003 ESL #66

Flyer		Manufacturer	Model	Motors	Result
Coleman	Bob	Estes	Snitch	C6	
Coleman	Brittany	Aerotech	Princess	F21	
Coleman	Brittany	Aerotech	Princess	F21	
Coleman	Joey	Aerotech	Outlaw	F21	
Coleman	Joey	Aerotech	Outlaw	F21	
Coleman	Michael	Estes	My Rocket	C6	
Coleman	Michael	Estes	My Rocket	C6	
Davis	Glenn	Scratch	DBN?	G35	
Davis	Glenn	Aerotech	Shoulda-Coulda	F12	
Ejma	Randy	PML	Patriot	J650	Red
Ejma	Randy	Scratch	Heat Rizes	H100	
Ejma	Randy	Scratch	Static Test	H100	WL Clone
Ejma	Randy	Scratch	Static Test	I200	
Freimayer	Anjelica	Estes	2 Lander	A10	
Freimayer	Anjelica	Estes	Big Dawg	B6	
Freimayer	Anjelica	NCR	Big Brute	G35	
Freimayer	Robert	Estes	Yellow Jacket	C6	
Freimayer	Robert	Estes	Silver Comet	D12	
Freimayer	Robert	Estes	CC Exspress	"D12,D12"	
Freimayer	Robert	Estes	Blackbrant II	D12	
Hickok	Richard	Scratch	Slim Jim	E30	
Hickok	Richard	Scratch	Yellow Jacket Upscale	C6	
Hickok	Richard	Scratch	Harpoon	E30	
Hickok	Richard	Scratch	Javelin	F21	
Hickok	Richard	Scratch	Sea Skua	F21	
Hickok	Richard	Scratch	Screw	C6	
Hier	Maggy	Quest	Skydive	A8	
Hier	Maggy	Estes	Alpha 3	A8	
Hier	Maggy	Estes	Alpha 3	A8	
Hier	Maggy	Estes	Alpha 3	A8	
Hier	Tom	Performance Hobbies	Nike Smoke	K530	
Kelly	James	Estes	Arces	F20	
Kelly	James	Scratch	M&M	K400	BMW Red
Ritz	John	LOC	Fortee	J600	8grain cocktail
Tiger	George	Aerotech	HV Argas	G35	
Utley	Bob	Scratch	Static Test	K450	Darren 3A
Utley	Bob	Scratch	Static Test	K450	Neil 2A
Utley	Bob	Scratch	Static Test	K450	Darren 2A
Utley	Bob	Scratch	Static Test	K450	Darren 2 Star
Utley	Bob	Scratch	Static Test	K450	Darren 3 Star
Utley	Bob	Scratch	Static Test	K450	Neil 2B
Utley	Bob	Scratch	Static Test	K450	Neil 2 Star
Wallace	Nelson	Aerotech	Mirage-D	G64	
5-Oct					
Alewine	Bill	Scratch	Copper Top	G79	
Alewine	Bill	Estes	Green Slime	E9	
Alewine	Bill	Estes	Green Slime	E9	
Alewine	Bill	Scratch	Acme	G79	
Alewine	Bill & Dave	LOC	7.5 V2	K445	
Alewine	Dave	Scratch	Pink Missile	H153	
Alewine	Dave	LOC	5.5 V2	H153	
Alewine	Dave	Scratch	no name	G60	
Alewine	Mariah	Scratch	Sumo Lighting	G69	
Brewer	Kikki	Estes	Nike Smoke	C6	
Brown	Bill	Scratch	Red Dragon	G64	
Brown	Bill	Estes	Patriot	C6	
Brown	Bill	Scratch	Sub-Zero	H180	
Brown	Bill	Estes	Patriot	C6	
Brown	William	Scratch	Sub-Zero	H165	*Cert 1*
Bryant	Carl	Aerotech	Initiator	G38	
Bryant	Carl	Aerotech	Initiator	G38	
Bryant	Carl	Aerotech	Strong Arm	G40	
Cox	Chris	Scratch	Cow Moo Flarge	E9	
Cox	Jim	Estes	Big Daddy	F12	
Davis	Glenn	Launch Pad	68 Russian Kyrpton	F21	
Davis	Glenn	Scratch	DBNP	G64	
Davis	Glenn	Aerotech	Stumpy Pete	F40	

Davis/Schumucher Flyer	Glenn/Fred	Scratch Manufacturer	Patriot PAC 3 Model	K450 Motors	BMW Blue 22 Result
Ejma	Randy	LOC	Megnum	J400	Red
Ejma	Randy	Scratch	Patriot	I270	tiger tail
Galysh	Ivan	LOC	4-29ss	"H70,H70"	rattworks
Gilliand	Kathy	Binder	2 the Star	K450	BMW Red
Gramick	John	NCR	Phantom 4000	G80	
Gramick	John	LOC	Norad	F50	
Gramick	John	Aerotech	Bull Puppy 2.1	F20	
Gramick	John	LOC	Onyx	F23	
Hickok	Richard	Scratch	Blow Pipe	K21	
Hickok	Richard	Scratch	Switchblade	D12	
Hickok	Richard	Scratch	Bunker Buster	F21	
Hickok	Richard	Scratch	Silver Fox	C6	
Hickok	Richard	Scratch	Slim Jim	F21	
Hickok	Richard	Edmonds	Geminee	A3	
Hier	Maggy	Quest	Sky Dive	B6	
Hier	Maggy	Quest	Sky Dive	B6	
Hier	Maggy	Quest	Sky Dive	B6	
Hier	Maggy	Quest	Sky Dive	B6	
Holt	Keith	Aerotech	Arcas	F25	
Holt	Keith	Aerotech	Barcuda	F23	
Holt	Keith	Aerotech	Arcas	F50	
Joseph	Jack	Scratch	no name	B6	
Joseph	Jack	Scratch	no name	B6	
Lacaze	Alex	Estes	Rocketeer	C6	
Lacaze	Turner	Estes	NASA 1	C6	
Lacaze	Turner	Estes	NASA 1	C6	
McCorkle	Sean	Yankee	Black Brant	G80	
McCorkle	Sean	V.B.	Javelin	G40	
McCorkle	Sean	LOC	Lil Nuke	F20	
McGavghlin	Peter	Estes	Tidal Wave	C6	
McGilvray	Neil	Scratch	Bone Daddy	L1200	red smoke
McGlaughlin	Peter	Estes	Tidal Wave	C5	
Newport	Curt	Missile Works	Viper	H143	*Cert 1*
Newport	Curt	Missile Works	Viper	G69	
Newport	Curt	Missile Works	Viper	G79	
Nicholas	Joeseph	Scratch	no name	B4	
Nicholas	Joseph	Scratch	no name	F50	
Nicholas	Joseph	Scratch	no name	A.25	
Nickolas	Joseph	Scratch	Amraam	B4	
Oasen	Rich	LOC	Lilac Time	F50	
Oasen	Rich	PML	Amraam	I285	
Oasen	Rich	Aerotech	Yellow Zonker	F50	
Paduch	Kenny	Scratch	Air Sorcever	B4	
Paduch	Kenny	Scratch	Air Sorcevey	C5	
Paduch	Kenny	Estes	Snitch	B6	
Paduch	Kenny	Estes	LSX	C6	
Petrulli	Kurt	LOC	Mini Magg	H153	* Cert 1*
Ritz	John	Scratch	Static Test	H100	blue 160kn
Ritz	John	Scratch	Static Test	H200	blue 220kn
Ritz	John	Scratch	Static Test	H100	blue 207kn
Ritz	John	Scratch	Static Test	I200	blue 199kn
Ritz	John	Scratch	Static Test	H100	blue 184kn
Schumacher	Fred	Yo-Yo	Overkill #4	K400	BMW Red
Sorci	Ross	Scratch	Tartar	H143	
Sorci	Ross	Estes	Black Brant	C11	
Sorci	Ross	PML	Black Brant	G80	
Sorci	Ross	Estes	Blue Ninja	D12	
Sorci	Ross	Estes	Big Daddy	D12	
Sorci	Ross	Estes	Big Daddy	E18	
Sorci	Ross	Estes	Big Daddy	D24	
Stafford	Dick	Estes	Big Daddy	E9	
Stafford	Dick	Scratch	XR71	C6	
Stafford	Dick	Fliskits	Duces Wild	"C6,C6"	
Stafford	Dick	Scratch	Desert Squid	G80	
Stafford	Dick	Art Applewhite	7.5 Saucer	C6	
Stafford	Dick	Scratch	Fat Oat Cluster	"E30,E30,E30"	
Stafford	Dick	NCR	Archer	G64	
Stopak	Jack	Scratch	no name	B6	

Flyer	Manufacturer	Model	Motors	Result
Stopak Jack	Scratch	Tartar	B6	
Stopak Jack	Scratch	Amraam	C6	
Stopak Jack	Scratch	no name	D12	
Stopak Jack	Scratch	no name	"C6,C6,C6"	
Taylor Nikki	Estes	Navy Standard Arm	C6	
Taylor Nikki	Estes	V2	D12	
Tiger George	Estes	Shadow	E30	
Tiger George	Aerotech	G-Force	H128	
Tiger George	Aerotech	Tomahawk	G80	
Wallace Fred	Scratch	Reulate This ATF	K500	Vulcan.....*
Wallace Nelson	LOC	Phobos	G64	
Wallace Nelson	LOC	Endeavor	I205	
Warpinsk i Ben	Estes	Saucer	C6	
Warpinski Kemp	Estes	Ionizer	C6	
Warpinski Nick	Estes	Flaming Fire	C6	
Warpinski William	Estes	Killer	C6	
Weber David	Estes	Commemorative Alpha	A8	40year anv. Alpha
Weber David	Weber Eng.	Sticker Shock	I284	
Weber David	Estes	Alpha 3	A8	40year anv. Alpha
Weber David	Cluster R	Skyraider	L1800	BMW ML
Willis Gerry	PML	W2	H125	*Cert 1*
Willis Ron	Estes	Code Red	B6	
Willis T.J.	Estes	Max Trax	C6	
Wilson Colleen	Estes	Patriot	C6	
Wright Darren	Scratch	Static Test	M1900	Aqua
Wright Darren	Scratch	Static Test	I400	blue

A	9	22.5
B	14	70
C	30	300
D	9	180
E	9	360
F	23	1840
G	23	3680
H	16	5120
I	7	4480
J	3	3840
K	15	38400
L	2	10240
M	1	10240
N	0	0
O	0	0
P	0	0

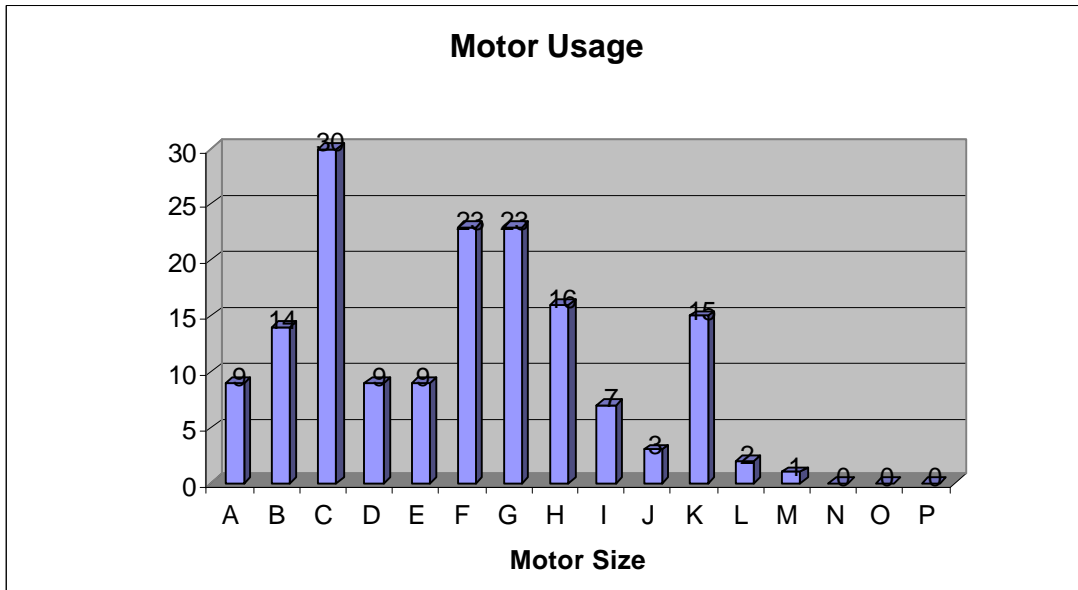
161 TOTAL MOTORS 78772.5 NEWTON/SECONDS



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Alien	0
Atlantic	0
Aerotech	18
Apogee	0
Art Applewhite	1
Binder	1
BSD	0
Centuri	0
Cluster R	1
Custom Rockets	0
Cosmo Drome Rocketry	0
Dynacom	0
Edmonds	1
Estes	44
Fliskits	1
Giant Leap	0
Hawk Mountain	0
High Flight Tech	0
Hobby Lab	0
Impulse Aero	0
JD Cluster	0
LOC	12
Launch Pad	1
Missile Works	3
MSH	0
NCR	3
Newton 3rd	0
Neubauer	0
PML	4
Performance Hobbies	1
Pratt Hobbies	0
Public Enemy	0
Quest	5
Rocketman	0
Rocket R&D	0
Rocket Teck	0
Rogue Aero	0
Rocket Vision	0
TCB	0
Thoy	0
True Modeler	0
Scratch	61
Shrox	0
Smokin Rockets	0
V.B.	1
Unknown	0
US Rockets	0
Vertical Concepts	0
Weber Eng.	1
Yankee	1
Yo-Yo Dyne	1

161 TOTAL ROCKETS



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Neil McGilvray's Smoke Nike at DARE2.

January 2004

Rocket Events

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday																																																																																				
<div style="display: flex; justify-content: space-around; align-items: center;"> <table border="1" style="border-collapse: collapse; text-align: center; font-size: small;"> <caption>December 3</caption> <tr><th>S</th><th>M</th><th>T</th><th>W</th><th>T</th><th>F</th><th>S</th></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="border-collapse: collapse; text-align: center; font-size: small;"> <caption>February 4</caption> <tr><th>S</th><th>M</th><th>T</th><th>W</th><th>T</th><th>F</th><th>S</th></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></td><td></td><td></td><td></td><td></td><td></td></tr> </table> </div>				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							1 New Year's Day	2 Battle Park Launch	3 Battle Park Launch
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25 Whitakers Launch	26	27	28	29	30	31																																																																																				

Space Facts:

Height limit for Mercury astronauts was five feet eleven inches (5' 11") Apollo it was six feet (6').

Last Page Funny



Even NASA has OOP's now and then. Someone removed the 24 screws holding the spacecraft to the test stand and never told anyone. When the next shift started to move the test stand, the spacecraft fell over. That's going to leave a mark.

No one is exempt from this page, we are starting at the top and working our way to the bottom of the barrel.