

SODAB DEWS

APRIL 1985



ART BY BOB SCHUCHMAN



Larry Rice
1653 Barnett Rd
Columbus OH 44139
Number of Issues Left: 3

POSTAGE

SNOAR NEWS

APRIL 1985

VOLUME 1 NUMBER 2

THEY DIRECT US IN SPECIFIC DIRECTIONS

IF YOU WANT GO

THINGS IN SUPPLY

As the April issue of SNOAR NEWS is mailed out, what's ready

LETTERS TO THE EDITORS

There's been a lot of letters to the editor in the April issue of SNOAR NEWS. Some of them are about the April issue, some are about the SNOAR NEWS staff, and some are about the SNOAR NEWS content. So we'll be printing some of them in our next issue.

STAFF

SNOAR NEWS is a volunteer organization. The staff is made up of people who have volunteered their time and energy to the organization. The staff is currently made up of the following people: Editor: [Name], Publisher: [Name], and several other staff members. The staff is responsible for the production and distribution of SNOAR NEWS.

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FROM YOUR ON-THE-WAGON EDITORS: (YEAH, BUREN)

Hey!
Well, welcome to the April issue of SNOAR NEWS, the newsletter that leads the EPA Superfund cleanup list.

It was hard to come up with an idea for how to do this issue. We were seriously toying with the idea of doing a California Rocketry parody, but gave up the idea when we realized that we'd have to wait at least a year to mail it out. And besides, could we really be funnier than Jerry Irvine's real life?

So, during one brainstorm session around the office, we came up with this great idea. "Let's rip off some one else's great idea", Tony said, promptly passing out. This left us in the dark about just who to rip off. So, in desperation, we decided to rip off our own great idea. So, you'll find this issue jam-packed with another version of "Letters to the Editors". We hope you like them. Of course, every one of them is truly authentic. Would we print anything less?

On another interesting note, there's been an addition to the SNOAR NEWS staff. We've added MAC II, who's been staying at George's. So now we're bi-coastal. Well, sort of, anyways.

I have yet to earn my NARTREK "Nitrogen" level (that's when you send your money in and see it vanish into the thin air), so I guess I better get to work on it. I real! wonder how many members of the US team have the coveted "NARTREK Gold". I know I don't.

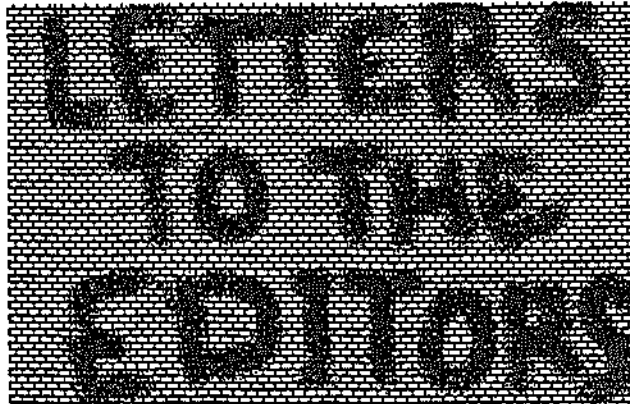
So, that's the latest! Enjoy!

Matt and Mac





Just When You Thought it Was Safe, There's More



Dear Sirs,
I've seen the future of model rocketry and I want my money back.
Tip Vortex
Action Rocketeer

Dear Sirs,
Big rockets are big bucks, fer shuuure. Hey, wanna buy the shirt off my back?

Jerry Whatsisname
US Rockets nose rockets

Dear Sirs,
Good day, eh? And like the topic for today is "international competition". And like why, eh, the U.S. is considering hosting a U.S.-U.S.S.R. meet, but can't get off a Can-Am?

Take off HOSERS
Bob and Doug McKenzie
Pizza Hut, Canada

Dear Sirs,
... Okay, so the new SR-71 is made of cardboard, we lied about repackaging the Centuri Saturn-5, our prices will continue to rise faster than the national rate of inflation dictates, and you'll never see anything interesting from us ever again. We don't care; we don't have to. We're THE rocket company.

You know who
Penrose, Colorado



Dear Sirs,
Let's raise the dues again, just for old times sake!
Your Board of Trustees
NARAM-27, Houston

Dear Sirs,
Why yes, I have \$7.50 for each of you.....
The Subscription Vigilante
Subway City, N.Y.

Dear Sirs,
Roses are often the color of red,
Violets, sometimes, may be blue;
and you'd go supersonic or more,
if they stuck a G120 up YOUR kazool
Barber's Bullet
1200 meters and falling fast

Dear Sirs,
Go ahead, punks, make our day!
HIS lawyers
Phoenix, Arizona

Dear Sirs;
I never met a Tony Williams I didn't like. Then again, I actually met Tony Williams only once.
Will and Dr. Smith
Lost in Space

Dear Sirs,
If model rocketry is so @*~∞S9fD/-Ing important, why wasn't it a part of the 1984 Summer Olympics?
Plain Jane McWane
U.S. Women's Synchronized Swimming Team

Dear Sirs,

I hope you can help me out. I have not received any of the orders I've sent recently. I really need those AVI E118 engines and the CNA launch control for the upcoming flying decade.

Not too much in touch
Sitting in the dark



Dear Sirs,
Here's a fun little game to play during a lull at your next club meeting, flight session, or whatever:

Whip out your copy of the SNOAR NEWS 10th anniversary issue and get a fellow rocketeer to stare at the cover for five minutes. Now hide the issue and ask him to describe THE ROCKETS the girls are holding.

Best score so far has been seven out of ten. Worst score was "What rockets?"

YMCA Space Pioneers
New Canaan, Connecticut

Dear Sirs,
I dreamed I died and went to heaven and St. Peter was hosting an Open meet. Steve Behrends was there, but he didn't compete.

Don Carlson

Dear Sirs,
A lot has been said about our "high prices" (\$27.95 for a pack of three D's, etc.)... Well, let me make this perfectly clear.....we don't care, we don't care, we don't care; we don't have to. We're THE advanced model rocket engine manufacturer.

Gary and Melody Rosenfield
Aerotech Fireworks Company

Dear Sirs;
Not for long!

Scott and Ramona Dixon
Vulcan Pyro Systems

Dear Sirs,

♪ She's got fins. . . she knows how to use 'em
♪ Don't crimp or bend. . . flies straight and true and
♪ She's my F Superroc. . . duration is her game
♪ She's out of sight!



ZZ-Zunofark

Dear Sirs;
What's the official beer of the 1985 US Team? I need to stock up now!

Chris Morgan
Margaritaville



Dear Sirs,
Deja-vul Did you see the cover of the November 1984 AMSPAM? There's Troy Stratton, again, placing his model on the pad.

After 26 years of extensive pressure from the NAACP and the American Civil Liberties Union, you'd think the NAR would finally allow minority members to FLY their models at contests.

Sparky the Neo-Liberal Asparagus
Somewhere in Delaware

Dear Sirs,
I'm truly sorry. I never dreamed it would come to THIS! Still, if I had it all to do over again. . . . Well, what would you do?

Uncle Vern

Dear Editors and such;

You know, there are a lot of reasons why I like SNOAR NEWS. I guess the main reason is that I like the mag and the people associated with it. SNOAR NEWS is freedom. Freedom to create (did I spell that right?), freedom to experiment, freedom to probe, to examine, freedom to get technical, to get funky, to get down, freedom to celebrate rocketry as a way of life (heavy). Hey, just look at the variety of material published in SNOAR NEWS: competition plans, manufacturer's news, satire, cartoons, plans from 1/2A to high power, NAR happenings, well the list goes on and on. <What is this man trying to say???

SNOAR NEWS is my kind of newsletter because it is so wide open...so different. SNOAR NEWS is amusing, informative, entertaining, and well, I just can't find the right words to express it.

By the way, keep sending the free issues my way!

A reader

Sirs;
I like SNOAR NEWS, too, but....Dahling...you look mahvalous!!!

Fernando

Sirs;

Well, the news is out. It looks as though model rocketry has been invaded by British singing groups. I saw "Frankie Goes to Hollywood" all out trimming boost gliders, and "The Firm" and "Big Country" out spotting thermals. Hey, wasn't that Boy George leading the contest point totals? I think that Culture Club can beat Pulsar this year. And how about that Lou Dick team?

Mr. T
Lee, Virginia

Dear Sirs:
Is that SR-71 on the cover of the Estes catalog really flying west over Salt Lake City at sunrise?

A Florida rocketeer



Dear Sirs;

I am happy to announce the formation of "Dual Egglofters for Africa", a group aimed at helping to relieve the suffering in Ethiopia. A number of America's top contest stars are constructing special dual egglofters to be flown at meets throughout the country. The lineup of "Dual Egglofters for Africa" includes Terry Lee, Chris Tavares, Pat Miller, Doug Kushnerick, Jay Apt, Bernard Biales, John Worth, Gary Rosenfield, Guppy, Mary Roberts, Randy Kelling, Chuck Mund, Carl J. Warner, Mark Warner, Frank the Stay-Prest Clone, and the entire Great Big Zunofark Revival Blues Band. Any eggs left unbroken after the flights will be donated to the starving. Great idea, huh?

Bullet Bob
Somewhere in the 11th dimension

Dear Sirs;

Tell Mr. Maddog that I'm shocked and appalled by the outrageous SNOAR NEWS cover. Also tell him that I won't let the issue rest until I can find out the name(s) of the model(s) (the female ones, that is) and when he'll be offering the video!

Mr. Strato
Tar Heel Country

Dear Defendants:

Anyone who tries to cluster type F motors for fun is a fool. Nobody needs that much boost. If you think you do, you have not done a neat design job.

G. Harry
4th Edition of the "Handbook"

Dear Sirs;

I've seen the future of model rocketry,and frankly, I'm terrified!

The NAR Inquisition
Chi-town, NIRA



COMING SOON: FRANK'N'KATE
GET DOWN AND GET FUNNY....

RANDALL PARK MALL AIR SHOW

BY DEBBIE SCHULTZ

Once again, it was set up time for another display, this time for the 1985 edition of the the Randall Park mall air show. The SNOAR display was relegated to the upper level. Why, you might ask? Well, we don't know for sure, but it is a fact that the businesses complained last year that that there weren't enough displays on the upper level. So this year, that's where the SNOAR display was, all by our lonesome self. The display certainly got a lot of attention from those who discovered SNOAR's whereabouts.

The biggest attention-getters were the biggest rockets in the display, the new Lots of Crafts Magnum and King Viper III (See the "Bullsheet" for details and photos). With a 5.6" diameters and over 6' tall, these birds generated a lot of excitement!

Chris Pearson had his usual contingent of large, immaculate models on display, including a Mongrol, Allegro Largo, Cantata, and Replica 2650. Also on hand to help with the festivities were Chris Johnston, Mike Wagner, Ken Hubbel, Bob Ferrante, Dennis Carraway, Don and Donna McPhearson, Ron and Debbie Schultz, and Bob Geler. All in all, it was a good turnout for the club.

Attendance at the show was down a bit from previous years, mostly due to the perfect weather, and the Autorama and model train show downtown. Scores of long lost Estes modelers were amazed to see how far the hobby had come. Most of these people were eager to sign up for info on SNOAR and LDRS-4. Bob Ferrante spent most of his time trying to attract young women over to the booth, but to little avail.

SNOAR sort of cleaned up on the competition categories. Actually, potential SNOAR members won, as Jesse Schultz won the school age category. Considering his father's skill, it was inevitable that his son would pick up on the hobby. But the real surprise was yours truly taking second place in the Open category with a V-2. Yes, I have been doing a little building on the sly! This surprised the boys so, as a result, they're moving me up to the advanced modelers category! I guess a pre-judging bribe of homemade pizza went a long way! Who says men can build them better?

We also managed a bit of TV coverage as well. Channel 5, WEWS, stopped in Saturday and filmed a ten second report, which basically consisted of "How high do these things go? Do you ever get them back? Do they blow up often?". Cable TV 9 also showed up and did a nice report for their local news segment. Of course, it wouldn't hurt that Jim Kobas, the newsman, is a long time neighbor of the Schultzes, would it? Ron Schultz made his debut as a SNOAR spokesman, and did fabulously. Longtime camera mug Chris Pearson was no where to be found, thereby breaking his incredible string of getting his face in any photo recording device: Chris's string had started back to the early fifties.

Overall, SNOAR drew a good number of interested onlookers. The quality of models was outstanding, proving once again that SNOAR modelers are some of the finest in the country. Let's hope we see a large local turnout for LDRS-4 in July!

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(seconds)

Initial Thrust
(Pounds)

Maximum Thrust
(Pounds)

Duration
(seconds)

Motor Mount/
Casing Size

D7	20	0.2, 4, 8	4.5	4.5	3.0	Modified D
E6	40	0.2, 4, 8	4.5	4.5	7.2	D
E10	40	0.2, 4, 8	4.5	5.5	4.0	D
E22	40	0.4, 8, 12	6.2	6.2	1.8	D
E28	40	0.4, 8, 12	5.0	9.5	1.4	D
E55	40	0.5, 10, 15	11.0	17.0	0.73	D
F30	60	0.4, 7, 10	6.5	9.5	2.0	D
F35	60	0.5, 10, 15	8.6	9.3	1.7	1.125 x 2.75
F10	80	0.2, 4, 8	8.5	8.5	7.9	Modified D
F15	80	0.2, 4, 8	4.0	4.0	5.3	1.125 x 3.25
F20	80	0.4, 8, 12	7.0	8.5	4.0	1.125 x 3.00
F41	80	0.6, 9, 14	8.0	15.0	1.9	1.125 x 3.25
F44	80	0.5, 10, 15, 20	16.0	16.0	1.8	Modified D
F80	80	0.5, 10, 15, 20	12.0	22.5	1.0	1.125 x 3.25

— Motors For The Scientist or Very Advanced Rocketeer —

F101	80	0.5, 10, 15, 20	24.0	29.3	0.79	Modified D	Class B
G25	120	5, 10	6.0	9.8	4.8	1.125 x 4.75	Class B
G65	130	0.5, 10, 15, 20	17.0	20.5	2.0	1.125 x 4.25	Class B
G70	120	0.5, 10, 15, 20	16.0	18.6	2.0	1.125 x 4.75	Class B
G125	125	0.5, 10, 15, 20	27.3	27.3	1.8	Modified D	Class B
G80	150	0.5, 10, 15, 20	27.5	36.3	1.0	1.125 x 4.75	Class B
H120	240	0.5, 10, 15, 20	19.0	26.0	2.0	1.125 x 5.25	Class B
J100	858	As Req'd - 10 15	31.3	37.5	2.0	1.125 x 7.25	Class B
J1507	3616	As Required	27.3	30.9	9.1	2.125 x 9.0	Class B
			304.0	537.0	2.4	1.125 x 3.00	Class B

— See Our Catalog For Thrust Tapes and Complete Technical and Ordering Information . . .

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WELCOME!

SCIENCE FUN

By Matt Steele

Science is what makes this hobby tick. So we here at the vast editorial offices of SNOAR NEWS have compiled these handy experiments just in time for science fairs and NARAM R&D. This article conforms to the Nation Science Education act, and fulfills our educational requirements for the year.

BIOLOGY is perhaps the most interesting aspects of model rocketry. I'm certain that most people don't consider biology a major research topic in model rocketry, but it can be one of the most wide open areas left in the hobby. The fascinating ability of both plants and animals to adapt to the rigors of spaceflight have been under study since the Chinese first invented gunpowder.

For our first biology experiment, let's study the effects of acceleration and deceleration on mammals. Obtain a hamster, kitten, or some other similar living, breathing varmit. Train the animal to perform some simple task, such as chewing through live electrical wires. Once (or if) the animal masters the task, prepare it for flight. Of course, like the astronauts, the animal must undergo vigorous training (or be elected a senator). Devise a small centrifuge from your motorcycle rear wheel to prepare your "hamsternaut" for space. Remember that your model will be traveling at speeds over 100 miles per hour, so train him appropriately. Practice "splash down" techniques in your local pool, river, or tidal basin. Insure your subjects have the "Right Stuff" by sending them through zero-G by dropping them off a four story building. Only when you have completed this grueling training program should you permit your astronaut candidate for spaceflight. Those who did not survive were no worthy candidates anyways, and you should note that in your scientific notebook (you ARE keeping a scientific notebook, aren't you?)

You don't need a fancy rocket to perform these experiments. Just be sure that the model has a clear payload section to allow for easy cleaning and observation of the subject. That old rocket over there with the shock cord half burnt off will work just fine. To obtain maximum results from your experiment, be sure to use at least an F engine. A streamer, or nose blow recovery system will maximize deceleration effects. After the flight, if you can locate the model and your "astronaut", determine if the subject can perform the task it was trained for, or any task at all. You will invariably conclude that spaceflight has a detrimental effect on the central nervous system of mammals.

Other experiments to try include investigating the effects of spaceflight on fish, reptiles, and amphibians. Try developing an intensive

flight program to determine how animals react to extremely high roll rates in conjunction with high accelerations. Can hamsters really fly if given a 300 foot boost? What animals are best suited for ground crews? Hot Stuff various insects and animals to blast deflectors before flight to determine how well they survive "fire and smoke". Will rabbit fur work better than regular wadding? The potential for reasearch in this fertile area is endless!

PHYSICAL CHANGES are another important area of our science lives. Just ask anyone who has recently totaled a car. When we do something to something, something often happens. The thing that happens is called a **CHANGE**. Often, change results from failing to something while doing

Below, Clockwise from top left: Eggs allow one to study biology and physical change at the same time. Lower center: Why will this chicken never hatch? Lower right: It will take some time for the weather to physically change this egglofter, but will happen. How long has it been, Tony? 5, 6 years now? Egglofters constantly find randomly placed telephone poles like this. Will this chicken hatch? Do chickens know how to fly at birth? Top right: This Vostok scale model underwent considerable physical change during a contest flight. Scale models are particularly vulnerable to physical change.



something to some one, oops, something. This is called an ACCIDENT. For a more complete explanation of this process, go back to biology. One kind of change is a PHYSICAL change. This usually happens when you impart a great deal of force to a stationary object, or vice versa.

You can develop an interesting set of experiments to determine the various physical changes model rockets undergo. Despite the changes, most of these can still be loosely considered to be "models", although many can be said to be "rekitted". Determine the physical change model rockets undergo when they impact into unwanted range urchins. Look at the change incurred by model rocket payloads when they hit the ground. Of particular interest are such payloads as radio control gear, eggs, and the dreaded FAI lead payloads. And, document what happens to big blustery contest directors when you: a) drop your car battery on his rocket glider; b) prang your F100 powered dual payloader straight into his windshield; c) punch the CD in the face for DO'ing your F100 powered dual payloader.

Of course there are other types of changes. CHEMICAL changes are another exciting area just begging for exploration! Chemical changes take place upon ignition of a model rocket engine, and all that propellant becomes "fire and smoke". Investigate the chemical effects of painting you models with a final coat of methylethyl ketone (MEK), acetone, hydrochloric acid, and/or sulfuric acid. Explore chemical methods of improving your late night last minute building sessions, and improving your disposition on the flying field. Find out what happens to big blustery contest directors when you: a) epoxy your flight card to his other rocket glider; b) prang your F7 powered rocket glider straight into his open car window, allowing the upholstery to catch fire; c) punch the CD in the face for DO'ing your F7 powered rocket glider.

RANDOMNESS is the primary scientific principle that guides our lives, and no science discussion would be complete without it. Allegedly, the Internal Revenue Service (this is a **** service?????) uses random methods to determine who gets tax audits, but this is not a true example of randomness. Randomness is a complete absence of order, when something happens without any cause that you can see. Most important NAR administrative policies are decided this way. If you chose to run over mailboxes, spray paint police cars, or commit a brutal ax murder, the absence of any real plan or order in selecting who or what you will inflict damage upon means that you have chosen at random. Much of current science involves separating things that are random from those that are not.

A major motor manufacturer used to randomly sample a number of their motors to insure quality control. A wino was stationed outside a production machine, and everytime he came out of a stupor, he would grab a few engines to be tested. This was truly a random sampling method, as the wino preferred Thunderbird, and there was no telling when he would come to. Over 167 motors were tested in a five year span!

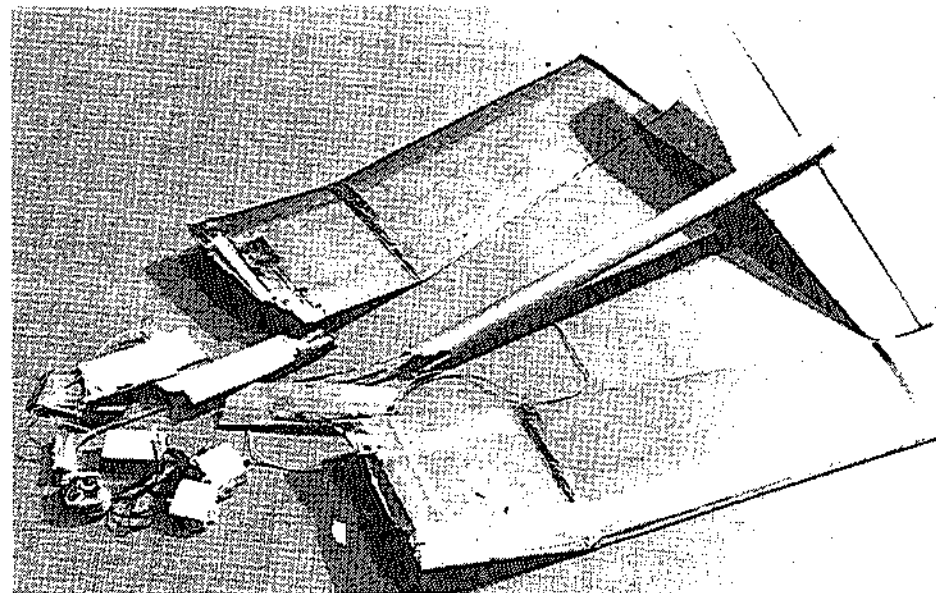
To observe the effects of randomness, build 15 Maxi-Alphas and fly them with D12-0's. Attempt to hit a spot landing "target" such as a cliff, a Corvette, or a house trailer. Measure the results of various impact craters, and see how far they are from the desired target. Granted, the rockets and the target may not be in very good shape, but you will have learned a great deal about **RANDOMNESS** in the process. You should've picked up a little insight as to **PHYSICAL CHANGES** (see above) by now, too.

Other very interesting experiments in randomness include: try and figure

out why certain people vote for certain NAR Trustees; find a reason why a bad engine will always blow up a good model at a demo or contest as opposed to a simple sport flight; make an approximation as to Al Nienast's next impossible altitude; observe the publication schedule of any model rocket publication; and listen to Howard Kuhn for a few minutes to figure out what point he is trying to make.

Well, isn't science fun? We hope you learned something from all these nifty experiments, and we also hope we don't get sued. It was a real fun time researching these experiments, and we're sure you'll have fun too. If you have any real good experiments that we didn't hit, mail 'em to us as soon as possible. Remember: Model Rocketry is safe, scientific.....SURE!

Below: Radio control boost gliders are supposed to fly precise flight paths, but often end up in extremely random directions, and in random sections. Can you guess which critical radio components of this model will not appear damaged and fall during the next flight?



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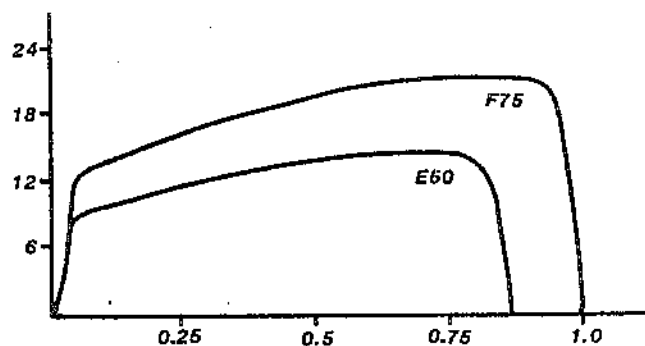
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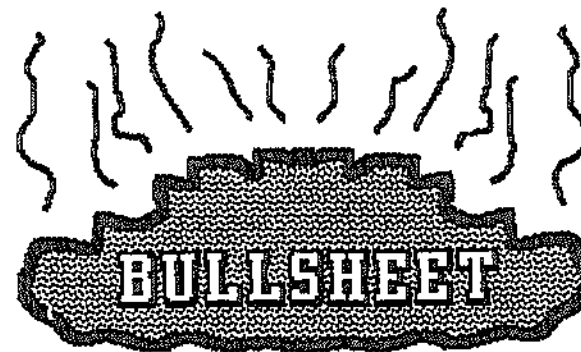
SPECIFICATIONS:	E50	F75
Total Impulse:	40.0 n-sec	80.0 n-sec
Burn Time:	0.8 sec	1.0 sec
Initial Thrust:	9.30 lbs	12.5 lbs
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Invasion of the Super Super Rocs??? Lots of Crafts and North Coast Rocketry have announced the release of two kits built around their new BT-56 tube (a whopping 5.6" in diameter, and .080 wall thickness!). The King Viper III is the largest kit currently available for the rocketeer, standing an incredible 8.8 ft. tall. The King Viper III can be powered by a cluster of three G65's or better. The Magnum stands 6.8 ft tall and can be powered by a central 2.125" motor and two outboard 1.125" motors. First flights are recommended with the Vulcan H135-10 and two Aerotech F55-10's. Both kits feature 3/16 pre-cut plywood fins, prefabricated construction, a 24" Aerofoam nose cone, and motor adaptors for various uses. The King Viper III sells for \$98 and the Magnum for \$82. The nose cone and tubing are also available separately. Order these items through North Coast Rocketry. North Coast has also announced that their new catalog is now out, and that their kits are in full production. The first public display of the kits will be at MidCon this month. For more information, contact North Coast Rocketry at 37541 Grove Ave #202, Willoughby, OH 44094.

Whirlwind motors are gone! The unique E23 motors are no longer, as production problems forced the end of manufacture. But, there may be another new motor line available by LDRS-4. Reaction Labs is nearing the final stages of testing and evaluation of their new F57 and G motor. Preliminary information says that the motors will have fiberglass casings and graphite nozzles. We'll let you know more about it in the future!

Vulcan Systems have released the designations of their new large-scale class B motors. Scott Dixon says the Vulcan H135 and the 1280 will be available shortly. North Coast Rocketry is the east/midwest distributor for these motors; contact them at the above address for more info and ordering instructions.

The NAR is forming a new Blue Ribbon commission on High Power Rocketry, to study the proposals of the LDRS committee. J. Pat Miller reports that the commission will be staffed by Vern Estes, Harry Stine, Dan Meyer, Chris Teveres, John Worth, Tony Medina, and Joy Apt. The chairman of the group is to be invited to LDRS-4 to observe the "state of the art". Of course, like last year, no one will be booted out of the NAR for flying rockets at LDRS. The high power movement is gathering momentum. Be sure and talk to any of these people when you're at LDRS and let them

know what's going on. A complete report on the LDRS committee will appear in a future issue of **SNOAR NEWS**.

Kits for sale: Centuri Mach 10 (\$7), Mini Dactyl (\$5), Excalibur 2 (\$8), Quasar (boxed, \$12), F104 Starfighter (\$8), F16 Falcon (\$8), Mirage 5J (\$8), Evil Knevel (\$6), Estes Alpha, Alpha 2, Alpha 3 (\$4 each), Enterprise (\$20), Klingon (\$20), TIE Fighter (\$15), Cruise Missile (\$8), Wolverine (\$5), Bandit (\$8), Starship Vega (\$8), Shuttle Columbia (new kind)(\$7), Solar Sailer (\$7), Galactic Pirates Excalibur (\$8), Red Max (\$6), Black Hole Probe (\$8), Pegasus (\$6), and Gooneybirds Missile Toe, Sky Shriek, Zoom Broom, and Galaxy Guppy (\$10 each). Also, MPC Flat Cat (boxed, \$15), MPC Lunar Patrol (boxed, \$15), MPC Zenith Two, (boxed,\$10) MRI Zenith 2(\$10), ASC Windrift (\$5), SAI Wombat (\$10) and Centuri Stellar Series Lance Corporal (\$10). Minimum order \$10, \$2 for shipping. Contact Matt Steele, 5655 South Fallwood #31, Salt Lake City, UT 84118.

If you want more, come to...

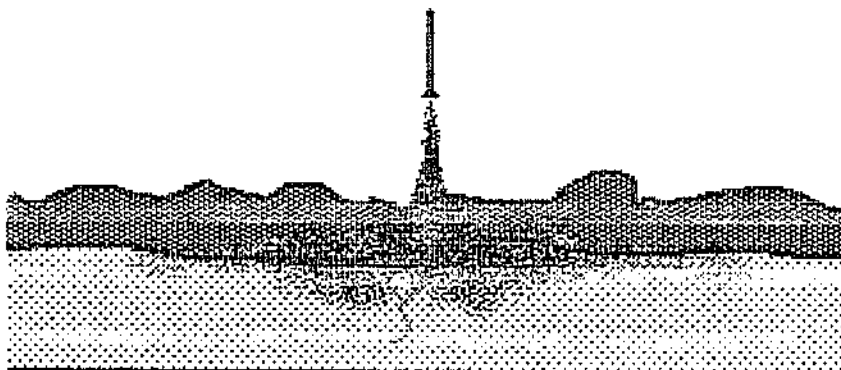
LOG-4

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ON THE OPPOSITE PAGE: Ron Schultz displays the new King Viper Viper