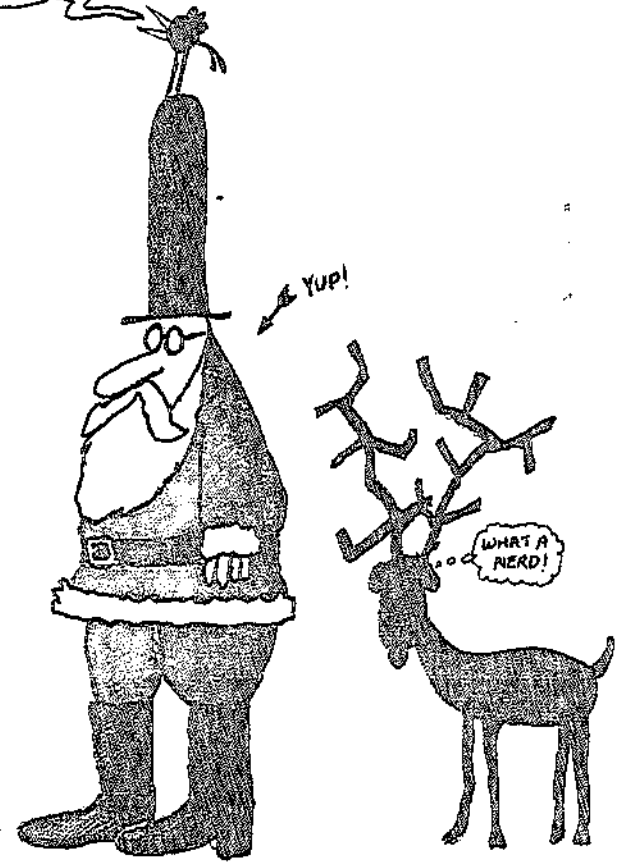


SNOAR NEWS

DECEMBER 1984
HAPPY HOLIDAYS!

*Deck my balls with
sprigs of holly...*



THE LEADER IN SPACE MODELING

SNOAR NEWS

THE LEADER IN SPACE MODELING
37541 GROVE AVE # 202
DUNLUSKEY OH 44094

TO:

Larry Rice
1653 Barnett Rd
Columbus OH 44139

POSTNET

USA
20c

A WIFE'S GUIDE TO SURVIVING HIGH POWER ROCKETRY

BY DEBBIE SCHULTZ

The times have changed, and the days of nagging to get things done are definitely gone. A new approach has come, and I've discovered a sure way for your man to take out the garbage. Simple? Indeed. Foolproof? You bet! Set a payload section deep into the bottom of a brown bag and place the booster section of a large and dangerous rocket near another, somewhere near the curb. Make sure most of last night's dinner leftovers cover the booster. When hubby discovers the disappearance, reply "Gee, I don't know where it could be. Maybe check the garbage." When he frantically throws crap all over the lawn looking for the booster, maybe he'll throw it closer to the curb. When he does, you've got him trained.

FINS:

Sanding fins can be a real pain in the buns. I hate the dust. What a build up! He may be sanding for hours. If you really want to keep him out of the bedroom, and the old "I have a headache" is too cliché, try this: Hide his fins! After spending all night looking for them, he'll have to build a new set. You know that the best sanding of fins only takes place at 2 AM, and boom, you're good for at least two night's sleep. Here's an added tip: You can always use the dust as generic bread crumbs. No one ever notices in the meatloaf.

ROCKET TUBES:

Rocket body tubes aren't too bad. I found that they make great extensions for the vacuum cleaner. That's right, just crimp one end around the hose to get in those hard to reach places where the dust from fins always seems to land. If you need more than one, get a coupler, and then tape them together. For the narrow places, crush the end to get just the right size. Don't worry about your husband getting upset; he's always got plenty in stock, and will never miss one or two.

SPRAY PAINT:

A whole book can be written on this subject. There are a lot of good and bad aspects on this subject. First, if you have decent lawn and a nice landscaping layout, spraying outside is where it's at. Are the neighbors curious as to where you bought your red, yellow, blue, purple, orange and pink bushes? Tell them they were all imported from China! If you have a lawn protection service, this is a sure way to get free lawn treatments. The lawn people will go crazy spraying stuff to kill the red grass mites one month, and the purple cooties the next. Anything to kill off those dandelions!

Model rocketry will never get your home painted in the right way, but the overspray will keep it in tip top shape. Ever notice how a man who can paint a perfect rocket, complete with 6 colors and a roll pattern, can never seem to hold a paint brush to paint the house? You're probably better off buying aluminum siding. At least that way the house will be one solid color, until the overspray effect comes into play. Then you can explain to people how rainbow siding is the next big thing.

SHOCK CORDS:

These are great fun. Never hide this item, as it is a must in the household. Remember, too, no one ever misses four feet or so when they have a lot. When your husband is busy spray painting, use the cord to zap all the flies he lets in. Also, you can zap your husband if he leaves the door open, spray paints your flowers, or complains about losing body tubes.

NOSE CONES:

These aren't worth a damn to any housewife. The only POSSIBLE use is as a jello mold, but only if you remove the screw eye. For those hot summer days,

you can always freeze a great big ice nose cone prior to the big meet.

LAUNCH LUGS:

This simple device can send little kids to the moon and back. They are great for non-rocket applications. In the heat of a small children's birthday party, they can be converted to soda straws. If hubby didn't miss the body tubes, he sure won't miss any of these. They also make great gifts, either as pea shooters or, with a deft cut of the old X-Acfo knife, a flute. Forget about painting them though (NEVER get caught with a can of spray paint in your hand! The threat is too great).

Lugs are also a life saver in the bathroom. When your contacts go down the drain, you can use them as a straw to get them back.

PARACHUTES:

Never, never let on to the fact that you can sew. If he does know that you can sew, proclaim rheumatoid arthritis immediately. Parachutes are the reason that the garbage never goes out. The garbage bags are always in the workshop.

There is a way to save your marriage and your life. It's called "if you can't beat 'em, join 'em." If you want to supplement your allowance, just start making chutes for him, and change their going rate. Convince him that it's better to buy off of you, as look as what will be saved in shipping alone! This also gives you an excuse to go shopping, as well as a reason for letting the housekeeping go.

Lastly, be pleased, not be upset when he asks for your wedding dress to make chutes from. After all, if he remembers the fact that you spent an hour in that dress, that was an hour that he wasn't paying attention to rockets. Of course, if you were married in the winter, don't worry. Satin just won't do.

So, those are the basics of surviving with a rocketeer. It could be worse. You could be married to a rocketeer who turns his hobby into a business!

(Editor's note: Debbie is the wife of Ron Schultz, a high power freak, and owner of Lots o' Crafts, who manufactures pre-fabricated kits. Both Ron and Debbie are full fledged SNOAR members)

WILLIAMS VOWS TO FIGHT TO THE FINISH!!!

(GIPSEY, AL) Trustee Candidate Tony "Maddog" Williams announced that despite his poor showing in a pre-season election poll conducted by Space Coast policy journalist Sam Goldberg, he will continue his quest for a position on the board of trustees of the National Association of Rocketry.

"As your trustee" Williams is quoted as saying, "I promise to fight for your rights as a dues-paying member of the NAR. Every member should be informed and have a voice in the association. Your money makes it go. You have a right to know!"

Dan Rather was unavailable for a post-speech analysis of these comments.



Remember to watch for complete election coverage in SNOAR NEWS. We intend to be the first one to project a winner, so you won't have to bother to vote. I know, you weren't going to in the first place.



SCALE DIMENSIONS

BY MATT STEELE

THE 1985 US SCALE TEAM EFFORT

As was discussed in the previous installment of Scale Dimensions, the Space Shuttle had been decided a possible prototype for world class scale competition. Previously, it had not been considered due to the inherent complexity of the model and the remote possibility that it could fly successfully. However, it did meet the other criteria that would make it a successful scale model. It was uniquely American. Rob Justis's 1/100th scale shuttle, despite it's problems, generated considerable interest among the other scale modelers, especially the Soviets and the Bulgarians. It would gather a large number of difficulty points, perhaps enough to overcome somewhat international bias in the judging of US models for accuracy and craftsmanship.

The team for the 1985 World Championships has been chosen. It was realized that the shuttle project had a considerable amount of development work to go before becoming a world-class model. As a result, the team will fly "known" prototypes and will continue to develop the shuttle for the future.

Members of the team are John Pursley, Jeff Vincent, and Chris Pocock, with the alternate being Matt Steele. John is one of the veterans of the team, having entered a 1/96th scale Saturn V in Poland in 1983. John has had previous experience building the Saturn V, having also helped with Rob Justis's 1980 model. John will be building another Saturn V for 1985, and is considered to have an outside shot of placing in the top three.

Jeff Vincent and Chris Pocock are the newcomers to the team, although both have considerable scale modeling experience. Jeff has done well modeling a number of prototypes, most recently the Sandhawk, and Super Loki Dart. Chris is well known for his many Beech "Jayhawk" drone models. Both Jeff and Chris will be modeling 1/72 scale Saturn IB's, most likely powered by E28 engines. Both Jeff and Chris are aware of the problems that may be encountered in facing another Saturn IB from the current world champ, but still feel that they can be competitive with the Saturn IB.

The other veteran of the scale team is Matt Steele, who will be the alternate on this year's team. Matt was tasked with the shuttle development project, and will model either Discovery in 1/72 scale. Detailing that size will be relatively easy, but there will be a constant battle to keep the bird under the weight limit. Radio gear will undoubtedly be the Cannon Super Micro gear, the lightest RC gear currently available. With that in mind, many exotic, and, as of yet untried, techniques will be utilized. The resulting shuttle will not only be a unique prototype, but a unique model rocket as well. John Pursley and George Gassaway have also been instrumental in the development of such a model, and flight tests during the summer have shown that the concept will work.

"Scale Dimensions" will be bringing you development information on all of these models as well as in-construction photographs during the upcoming year.

Coming next in "Scale Dimensions": Scale Data Packs



V TAIL

and Launch Glider
er. Plans for both

you shouldn't have
for what they are
Titebond is better
ve time to spare.
I be more durable
ope all over and a
grit sandpaper and
a pop-pod utilizes

stently good glider
cedure for giving
' you want to put in
trailing edge of the
ore than the other
own elevator effect
study the vee-tail
the same range of
r and rudder tail



THE 1985

As was discussed in Space Shuttle had been competition. Previous complexity of the model successfully. However successful scale model scale shuttle, despite among the other scale Bulgarians. It would get enough to overcome so for accuracy and craft.

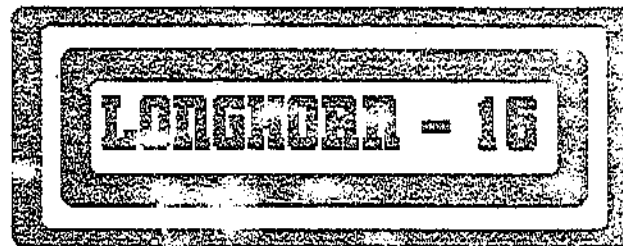
The team for the realized that the shuttle work to go before become will fly "known" prototype future.

Members of the team with the alternate being team, having entered a had previous experience Justis's 1980 model. It considered to have an

Jeff Vincent and Chris both have considerable modeling a number of Lokl Dart. Chris is well. Both Jeff and Chris will powered by E28 engine may be encountered in champ, but still feel ti

The other veteran alternate on this year's project, and will model will be relatively easy under the weight limit. Micro gear, the lighter many exotic, and, as of resulting shuttle will rocket as well. John P. instrumental in the del summer have shown the "Scale Dimensions" these models as well year.

Coming next in "S



A STANDARD ENGINE, POP POD, VEE TAIL BOOST GLIDER

by Tony Williams

The Longhorn-16 started out as a scratch-built Hand Launch Glider (HLG). The second model was re-engineered for rocket power. Plans for both versions are presented here.

BUILDING: The plan illustrations are very complete, so you shouldn't have any trouble. Here are some additional construction notes, for what they are worth: **Glue** - I use Ambroid to assemble all of my gliders; Titebond is better for the pod. White glue will work fine for both, if you have time to spare. **Finishing** - The glider will fly without any finishing, but will be more durable and streamlined with at least two coats of thinned clear dope all over and a couple more on the wing. Sand well between coats with 400 grit sandpaper and rub the final coat lightly with extra fine steel wool. The pop-pod utilizes conventional rocket finishing techniques.

TRIMMING: Proper trimming is the key to getting consistently good glider flights. The Longhorn-16's vee-tail requires a different procedure for giving the glider elevator and rudder adjustments. For example, if you want to put in a left rudder adjustment, you will need to bend the left side trailing edge of the vee-tail down and the right side up. If you bend one side more than the other (for example the left side down more) it will give an up or down elevator effect also (in this case down). Think about this for a while and study the vee-tail while imagining the effect of various combinations. You have the same range of adjustment possibilities as with a conventional stabilizer and rudder tail section.

Announcing...
 North Coast Rocketry's
**"NORTH
 COASTER"**
 Model Rocket Motors

**HIGH PERFORMANCE!
 EXCEPTIONAL RELIABILITY!
 LOW COST!**

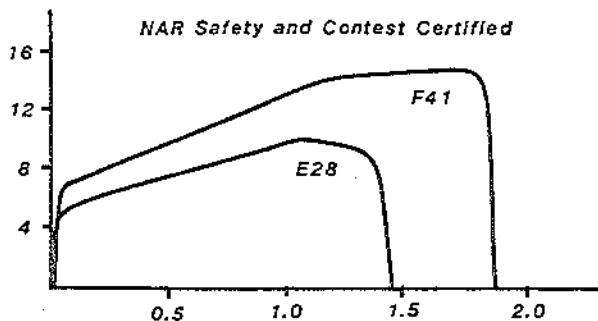
*North Coast Rocketry has released its first motor series,
 the "North Coasters".*

*These motors significantly advance the state of the art in
 large motor technology.*

*Using advanced propellants and casing materials, North Coasters
 deliver reliable power for less cost.*

Try them in your next rocket and see the difference!

SPECIFICATIONS:	E28	F41
Total Impulse:	40 n-sec	80 n-sec
Burn Time:	1.4 sec	1.8 sec
Initial Thrust:	5.85 lb	7.30 lb
Peak Thrust:	9.30 lb	15.4 lb
Motor Diameter:	0.938 in	1.125 in
Motor Length:	2.75 in	3.50 in
Propellant Mass:	18.9 grams	37.8 grams
Delays:	4, 8, 12 sec	6, 9, 14 sec
Price:	\$6.95	\$8.95

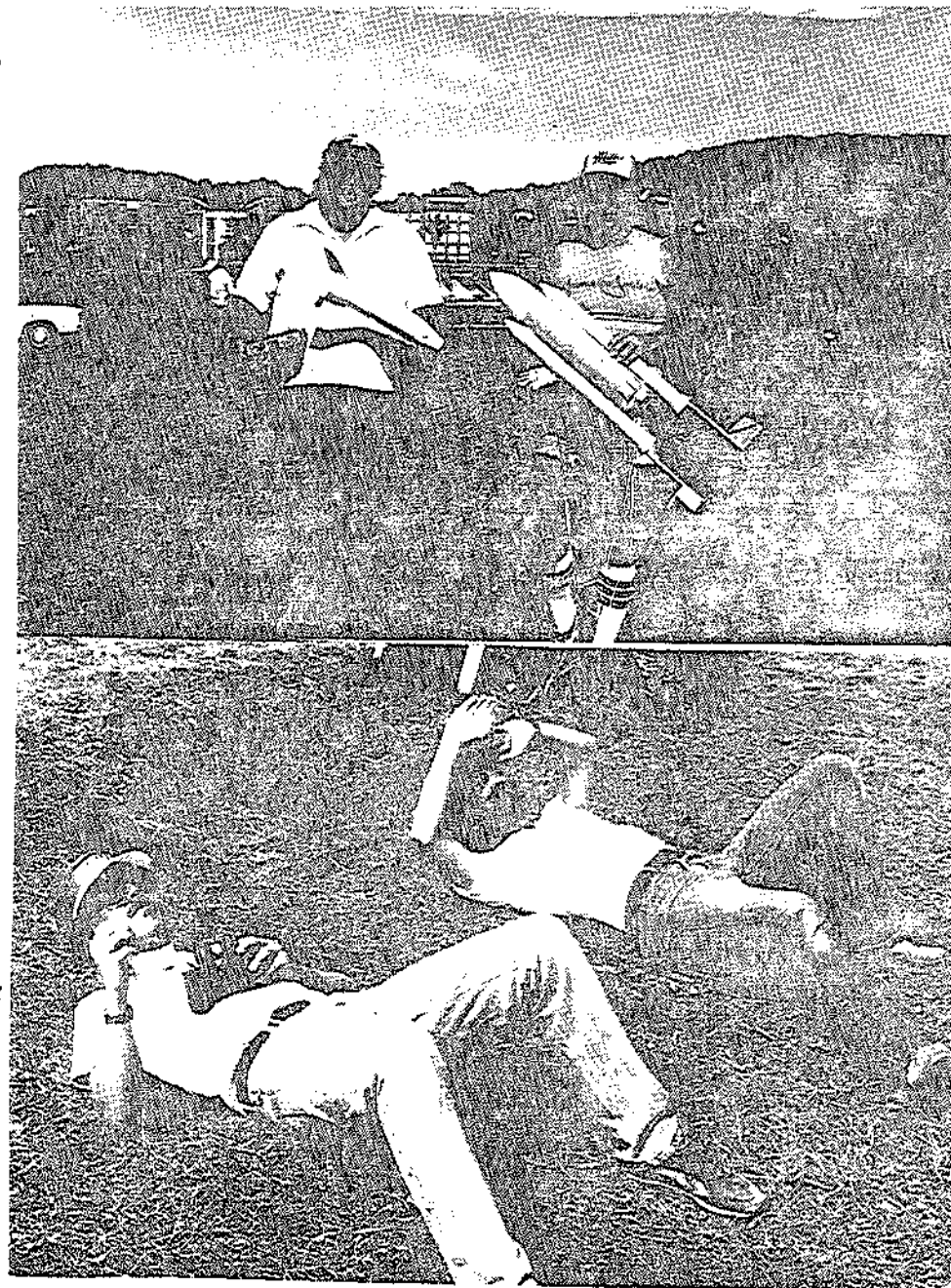


For catalog, send \$1.00 to:
NORTH COAST ROCKETRY
 37541 Grove Ave. No. 202
 Willoughby, OH 44094

"Serving you better from 'The Heartland' "

FAB FOTOS

From the blackmail archives, here are some goodies. Below, top: George Gassaway and Matt Steele show off their successful KC Space Shuttle. (Mr. Terry Lee photo) Below, bottom: Jerry Irvine and Gary Rosenfield hard at work timing parachute duration models for Internats flyoffs. Thank God for maxes! (Zunofark photo).



CUBAN MISSILE CRISIS 1984

By Chuck Mund

The 1984 Cuban Missile Crisis was held on Sunday, October 28th, in Wilmington, Ohio. The participants met in a local LK restaurant around 11:30 AM and followed Mike Nelson to the field convoy-style. In attendance were Mike Nelson, Craig Owens, Tom Weitkamp, Scott and Ramona Dixon, Chuck Mund, and other modelers from the Ohio and Pennsylvania area. The weather was typically Ohio fall, with temperatures in the mid-sixties, and intermittent drizzle.

The first flight off the pad was a prototype, experimental H1000 engine in a fiberglass airframe. The beast was extremely fast at about 400 g's of acceleration! The model landed about two minutes later only 30 feet from the pad. Most of the flying was done by Mike Nelson, using the opportunity to help Scott Dixon demonstrate his new motors. Chuck Mund and Ramona Dixon were primarily photographers. The Vulcan System E35, F55 and G97 (see review elsewhere in this issue) were all flown successfully. These motors utilized thermalite ignition, and high density tracking smoke for ease of tracking. Also flown was a special F130 motor which had a phenolic nozzle and used an electric match for ignition. In between Vulcan flights, Mike was also trying out the new G60 and F30 engines from Aerotech. A few misfires occurred, but when the motors lit, they performed to spec. Gary Rosenfield had identified and corrected the ignition problem for production motors prior to this launch, but Mike chose to fly the prototype engines.

Craig Owens flew an imaginatively decorated Maxi-Brute Honest John and a unique looking BT-39 model with a Vulcan engine. Tom Weitkamp also flew a good-sized BT-39 model that had elliptical fins and an ACE plastic nose cone. After some problems getting enough current from the A&A launcher, a flashbulb and insulated thermalite were substituted and ignited the F40 with satisfactory results.

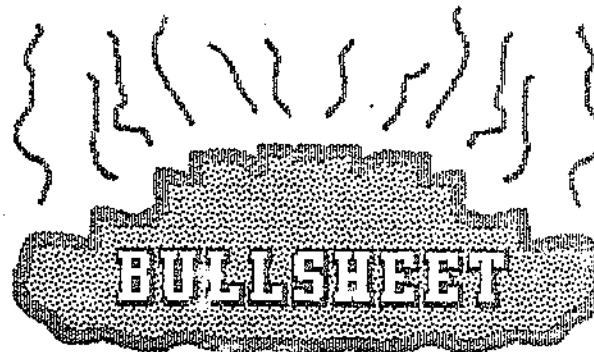
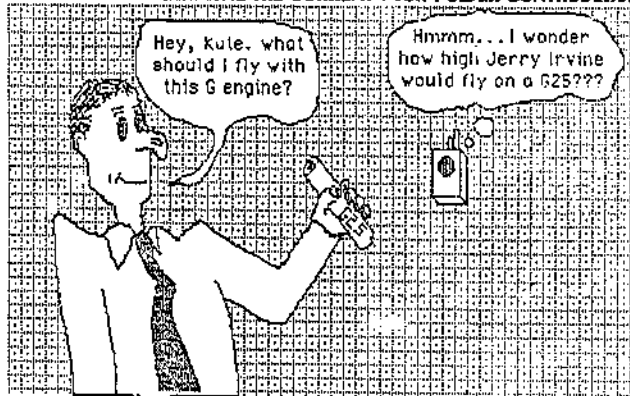
The Pittsburgh contingent spent the better part of a day flying standard model rocket from their rack launcher. They had a few unfortunate catos, including a Crown E45, but for the most part they were quite successful. They also helped out with the recovery of the larger birds.

The stars of the show were the new H160-15 motors by Vulcan. With a two second burn time, and a neutral time thrust curve trace provided by a two part grain geometry, these motors are quite flyable. They feature a 1.5" diameter fiberglass casing with a graphite nozzle. Ignition is by pyrogen dipped electric match, and thrust build-up is rapid. Two H160's were flown. The first was in a 4" diameter model with a sand payload. The second was a two stage 2.6" diameter model with a stagger ignited F55 top stage. Both boosted high and fast on a bright flame.

Mike finished the flying with a 2 F44 + 2 D12 cluster and a single G25 powered 2.6" model which was lost. Just when Mike gave up looking for his third lost model, the rain started in earnest. We all packed up quickly and left.

Overall, those in attendance enjoyed watching the Vulcan and Aerotech show. The organization and planning left a good bit to be desired, but hopefully things will be better next year.

FRANK AND KATE EXAMINE THE CURRENT HIGH POWER CONTROVERSEY....



Vulcan Systems is moving! Yes, as of 17 December 1984, you can reach Vulcan at the following address: Vulcan Systems, Inc., P.O. Box 6099, Colorado Springs, CO, 80934. Also, please note that the problems encountered by Chas Russell in the last issue have now been cleared up. Vulcan Systems has also released some data on their motor line, and we're sure you'd like some of the details. Currently, they are advertising four engines: E35, F55, F130, and G97. All motors have a 1.125" diameter, and the E35 is 3.25" long, the F55 and the F130 are 4.5" long, and the G97 is 6" long. All casings are filament wound. Other stats:

TYPE:	E35	F55	F130	G97
Burn time:	1.11	1.31	.58	1.18
Propellant Mass:	20.9 g	40.7 g	39.8 g	61.2 g
Total Impulse:	40	80	80	125

Well, it looks as though the 1985 Internats will be held in Bulgaria, as expected. Jerry Gregorek, just back from the FAI meeting in Paris, reported that the events will also be: A Parachute Duration, A Streamer Duration, B Boost Glide, B Altitude, C Scale Altitude, Scale, E Radio Control Rocket Glider (unofficial) and Research & Development (unofficial). It also appears that the team will be the same people as reported previously, with Trip Barber and Dan Winnings added to help with the extra event. A new twist in the rules: all of the Altitude, SD, PD, and BG models must have a minimum diameter of 18mm for at least 50% of the length. Seems that this is a safety rule stemming from the Rumanians' use of 6mm (!!!) micro-motors at the 1984 European Championships. A more complete report on the 84 European Championships will be presented in an upcoming issue.

Check out the latest (December) issue of ANALOG, the sci-fi magazine, to see a feature length story by, of all people, Geoff Landis. I guess that makes him world famous, doesn't it? Of course, we could always claim he got his start by contributing to SNOAR NEWS.

The Aerotech F20 and F10 will be NAR Safety Certified within 30 days, and Contest Certified 90 days later.

SOAR, Seminar On Advanced Rocketry, will be held in Cincinnati on the third weekend in April. More info as it becomes available.

Guess what's coming to LDRS-4? Doug Forrester, who had the fantastic "Grand Slam" and "Blue Jay" at LDRS-3, indicates that he has a 1/5th scale V-2 in the works! The monster model will have cameras for a payload rather than a warhead.

An interesting little publication showed up in the mail recently. Randy Kelling has started "The APU Exhaust, A Splendid Little Modroc Periodical" a little newsletter for Alabama rocketeers. Of note is the Jupiter C scale data. No firm plans on a publication schedule, but contact Randy at: P.O. Box 153, Mt. Olive, AL 35117.