TO:
Larry Rice
1653 Barnett Rd
Columbus, OH 44139

SNOAR NEWS
DECEMBER 1984
HAPPY HOLIDAYS!

"deck my balls with sprigs of jolly..."

Yup!

WHAT A HEAD!

THE LEADER IN SPACEMODELING
Dear Reader,

If you're seeing this, I've got an amazing idea for you. Imagine a world where all the beers you love are just a click away. No more running to the store, no more standing in line. You can have whatever you want, wherever you want, whenever you want. The future of beer is here, and it's all about the beer delivery service.

But that's not all. Imagine sitting at home, enjoying a cold one, and not having to worry about cleaning up the mess afterward. You can order your favorite beers, and they'll be delivered right to your doorstep. The convenience of it all is unparalleled.

So why wait? Join the beer delivery service now and experience the future of beer. You won't believe how much happier you'll be with cold, delicious beers at your fingertips. Try it today, and see the future of beer for yourself.

Sincerely,
[Your Name]
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 payday 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 hobby discovers the disappearance, say “Gee, I don’t know where it could be. He couldn’t have thrown it over the lawn, looking for the booster, maybe he’ll throw it closer to the curb. When he does, you’ve got him trained.

FINE:

Sanding fins can be a real pain in the buns. I hate the dust. What a build up! He may besandboxing for hours. If your real want to keep him out of the bedroom, and the old “I have a headache” is too cliche, 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 nights 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 and around the hose to get the hard to reach places where the dust from fins always seems to land. If you need more than one, get a couple, 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. Ask your neighbors curbing at 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 alike one month, and the purple cooies 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 of 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 leaves 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 strawers. If hobby doesn’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 dusting of the old X-Acto knife, a fist. Forget about painting them though. Never get caught with a can of spray paint in your hand! The thread is too great.

Lugs are also a life saver in the bathroom. When your contact 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, proceed humiliated until he 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 charge the going rate. Convince him that it’s better to buy off of you, as long 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 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 rocke,xmer who turns his hobby into a business.

(Editors 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 SNCAR members.)

WILLIAMS VOWS TO FIGHT TO THE FINISH!!!

(LOUSEY, AL) Trustee Candidate Tony “Paddog” Williams announced his plans to fight in the pre-season election poll conducted by Southern Coalition for Democracy. He’s a freelance journalist and a member 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 SNCAR News.
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 Justice's 1/100th scale shuttle, despite its 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 do 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 1/100th scale Saturn V in Poland in 1985. John has had previous experience building the Saturn V, having also helped with Rob Justice'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 220 engines. Both Jeff and Chris are aware of the problems that may be encountered in facing another Saturn IB from the current world champs, 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 locked 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 Carson 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.

Continuing next in "Scale Dimensions": Scale Data Packs
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 "I" realized that the shuttle work to go before beef will fly "known" prototype future.

Members of the team with the alternate being team, having entered a had previous experience Juul's 1980 model. It considered to have and Jeff Vincent and Chris both have considerable modeling a number of the Loki Deit. Chris is well.
Both Jeff and Chris will powered by 240 engine may be encountered in chump, but still feel fine.

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

Coming next in "S"

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**LONGER - 18**

**A STANDARD ENGINES, POP POD, VEE TAIL BOOST GLIDER**

by Tony Williams

The Longhorn-18 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 Ambrosol 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 with 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-18'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!

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**FAB FOTOS**
From the blackmail archives, here are some goodies. Below, top: George Sessaway and Matt Steele show off their successful RC Space Shuttle. (Dr. Terry Leo photo) Below, bottom: Jerry Irvine and Gary Rosenfield hard at work timing parachute duration models for Internation Flyoffs. Thank God for makes! (Zonolark photo).
The 1964 Cuban Missile Crisis was held on Sunday, October 26th, in Wilmington, Ohio. The participants met in a local restaurant around 1430 A.M. and followed Mike Nelson to the field for a "cherry." In attendance were Mike Nelson, Craig Wellkamp, and Ramona Dixon, Chuck Mund, and other modellers from Ohio and Pennsylvania areas. The weather was typically Ohio fall, with temperatures in the mid-50s, and intermittent drizzle.

The first flight off the pad was a prototype, experimental H100 engine in a fiberglass airframe. The boost was extremely fast at about 480 g's of acceleration. The model landed about two minutes later only 30 feet from the pad. The flying was done by Mike Nelson, using the opportunity to test the model. Scott Dixon's "Dixon" motors were primarily the models flown. The Vulcan Systems F100, F55, and 655 (see review elsewhere in this newsletter) were all flown successfully. These motors are for small-scale ignitions and high-speed flying with a nose of tracking. Also flown was a special F100 motor which had a second nozzle and used an electric match for ignition. Between Vulcan flights, Mike was also testing out the new 650 and 750 engines from Aerotech. A few misfires occurred, but with the motors lit, they performed as expected. Gary Rosenfield had identified and corrected the ignition problem for production motors prior to this event, but Mike chose to fly the prototype engines.

Craig Owens flew an imaginatively decorated Maxi-Brute Honest John and a unique-looking BT-59 model with a Vulcan engine. Tom Wellkamp also flew a good-sized BT-59 model that had elliptical fins and an ACE plastic nose cone. After some problems getting enough current from the AA launcher, a flashbulb and insulated thermocouple were substituted and ignited the F40 with satisfactory results.

The Pittsburgh contingent spent the better part of a day flying standard model rocketry from their rack launchers. They had a few unfortunate calotes, including a Crown EX5, but for the most part they were quite successful. They also helped out with the recovery of the larger birds. At the end of the show were the new H100-7, H100-8, and the H100-15 motors by Vulcan. With a two-second burn time, and a neutral thrust curve, they are quite flyable. They feature a 1.5" diameter fiber-glass casing with a graphite nozzle. Ignition is by pyrotechnic match, and thrust buildup is rapid. Two H100s were flown. The first was in a 4" diameter model with a 25 lb. payload. The second was a two-stage 2.5" diameter with a staggered F40 top stage. Both boosted high and on a white flame.

Mike finished the flying with a S 44 + 2 D12 cluster and a single G25 powered BT-59 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 organisation and planning left a good bit to be desired, but hopefully things will be better next year.

**CUBAN MISSILE CRISIS 1984**

By Chuck Mund

**BULLSEYE**

Vulcan Systems is moving! Yes, as of December 1984, you can reach Vulcan at the following address: Vulcan Systems, Inc., P.O. Box 6099, Colorado Springs, CO. 80904. Also, please note that the problems encountered by Chris Russell in the last issue have now been cleared up. Vulcan Systems has also released some data on their motor line, and we are sure you'll like some of the details. Currently, they are advertising four engines, F35, F55, F100, and 655. All motors have a 1.25" diameter, and the E35 is 3.25" long, the F55 and the F100 are 4.25" long, and the 655 is 0.0" long. All casings are filament wound. Other stats:

- **Type:** E35, F55, F100, 655
- **Burn Time:** 1.11, 1.31, 1.58, 1.18
- **Propellant Mass:** 20.9, 40.7, 39.9, 51.2 g
- **Total Impulse:** 80, 80, 80, 125

**BULLSEYE**

We'll look as though the 1985 Internationale will be held in Bulgaria, as expected. Jerry Grogan, just back from the FAI meeting in Paris, reported that the events will also be: A Parachute Duration, A Streamer Duration, E-Boost Glider, S Scale Altitude, Scale, E-Plane 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 Don Widdings added to help with the extra event. A new twist in the rules of the Altitude, PD, and ES models must have a minimum diameter of 18 mm or 3/4" in the length. Seems that this is a safety rule stemming from the Russians' use of 6 mm (1/4") micro-motors at the 1984 Internationale Championships. A more complete report on the ES European Championships will be published 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 SHAGS News.**

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

**SPAR 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 LOBES-99? Doug Farrester, who had the fantastic "Grand Slam" and "Blue Jay" at LOBES-98, indicates that he has a 1/32 scale V2 in the works! The monster model will have cameras for a payload rather than a warden.**

**An interesting little publication showed up in the mail recently. Randy Kelling has started the APU EXHAUST, a Splendid Little Rocket 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, H. OLIVE, AL 35117.**