

MAX-Q

Newsletter of the Huntsville Area Rocketry Association

Vol. 2 No. 6 Nov/Dec 1988

1988 SECTION NATIONAL CHAMPIONS

Who Are These People And Why Are They All Smiling???



Prize Winners for the Rocket City Classic are (front row from left): Brent Goode, Carolyn Smith, Charles Smith, Russ Cowart. (back) Robert Bond, David Stewart, Richard Smith, John Tansy, Steve McClure, Markus Halbritter.

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and more!

Please see *Countdown* for
change in January meeting place!!!

Seventh Classic is Anticlimactic

by Vince Huegele

HARA members had a good laugh at the Seventh Annual Rocket City Classic open contest in October. After hosting NARAM-30, a national contest with seven days of flying, the four hour novice contest "was a joke", "no problem", and "a piece of cake", according to various veteran's comments.

The eighteen contestants were a lower number of entries than last year's Classic, with only fifty competition flights. But the support from the aerospace community in funding and manpower was as strong as ever. Many of the same people return each year to act as judges and officials and help run the Classic.

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Wadding Scraps

From The President's Pad

"He was not sure what to do now. But he would think of something."

*closing of 2001: A Space Odyssey
by Arthur C. Clarke*

The above quote describes the Earth astronaut David Bowman after he has been transformed into a superbeing by the monolith. This is not to suggest that HARA as National Champions has become masters of the universe, but rather, well, after hosting and winning NARAM-30, now what?

There are many goals that could be set. We could make it two in a row. Has any club ever won A, B, C, and team division championships in one year? That is reaching for the stars! But HARA has some serious competitors that are just getting started. Who can say what mark we can make? Our contests are not getting smaller as regional rocketeers converge to prove and improve their skill.

But there's more to do in 1989 than contests. Project STAR and the interaction with local schools has great potential. What we've done with BABE-1, we can expand and continue as other groups develop payloads. We may be able to have teacher workshops showing how to use model rocketry in the classroom. Are you interested?

We had a good time with building sessions last year. I'd like to see us have one to make B Boost Gliders. Another session working on finishing techniques for scale and plastic conversion would be helpful. What would you like?

With the NARAM-30 profits, we have some funds available. A possible use would be some instruments for a range

weather station. Want to build a thermal detector?

President-elect Bush said to Huntsville last year, "You are working on the frontiers of human imagination." And so we are in HARA, too. 1989 can be even better.

In a less formal tone, there are just a few more words on NARAM-30. We were just about over it when the NARAM AmSpace issue came out. John Pursley said it was the best NARAM coverage ever and I agree. Inside color pictures are always impressive, but for the record, that was not my Patriot model. I was proxy flying it for Wayne McCain, who had to work that morning. Wayne was in dead last, including the A Divisioners, in static Sport Scale points, probably because he had built the rocket the night before judging just to get club flight points. My entry, an Estes Scout, (see photo) was only 15

points ahead of him. I had built it much more ahead of time. (In 1981) That was before I knew about the fine points of scale model painting. (Like using primer.) The oft repaired bent fins on my well seasoned Scout gave a schismatic flight. But I was only flying it for the club, and for pride, or lack of it.

It was while I was prepping Wayne's model that Pursley, as well as Mary Roberts, took my picture with the Patriot. It flew very well and ahead of me in rankings. But don't expect to see it in future contests. Dana says the electricians tape in the roll patterns is coming off. (And now you know the rest of the story.)



It wasn't until after NARAM that I got to take a good look at the stuff in the contestant's packet. The larger red booklet (the smaller red one was the pink book) was our NARAM-30 program. This monumental work that Robyn Steele did was very good, and certain to be the most memorable souvenir of the week. I still haven't filled in the names in mine, but I hope a program like this becomes a new NARAM tradition.

As for Mr. NARAM-30 himself, Matt Steele, he deserves all kudos he's been given. No one worked harder on this project than he did, and no one was more deserving of the success. And no one will enjoy the next NARAM any more than HARA and Matt, because we won't have to run it.

I heard Matt tell his son as they were lying on the floor of the motel room, "No more NARAM's in Huntsville, Cody, until you're old enough to fly in them." Then he sighed, "in C Division!" If we can just get that notarized on paper, we'll be safe.

Happy New Year!!!
Vince Huegele

MAX-Q

HARA President: Vince Huegele
Production Editor: Robyn Steele
Santa's Little Helpers (and MAX-Q Contributors):
Matt "the Man of" Steele, Crocodile Wayne Hendricks, Vince "the Prez" Huegele, Marty "Hank" Williams, Commander Cody, Robyn "the Boss" Steele, Wayne "Media Man" McCain, and Opus and the gang and Bartles and James.
Photos by Vince Huegele.

Please send contributions!!! Articles, pictures, nasty letters, complaints, money- we'll take anything!!!

MAX-Q is the official newsletter of HARA, NAR Section #403. Articles, photographs, suggestions, comments, complaints, nasty letters, etc. are actively solicited from all members for the MAX-Q. MAX-Q subscriptions are included as part of membership dues of \$6.00 per year with additional family members at \$3.00 up to a total of \$12.00 max. Non-HARA subscriptions are available for \$5.00 per year. MAX-Q is produced and published on a Mac SE, Laserwriter II NT and Panasonic 1530 (Courtesy North Coast Rocketry) by Robyn Steele.

HARA Activities

Second SEDS Launch

by Vince Huegele

As part of the second annual Space Awareness Week, HARA held a launch for SEDS (Students for the Exploration and Development of Space) at UAH on October 22, 1988. Having a Space Awareness Week in Huntsville is like having a Snow Awareness Week in Alaska, but that's what the college kids wanted. It was also the Breast Cancer Examination Week, but HARA was not asked to participate in that. (*Much to the dismay of some of our senior members*)

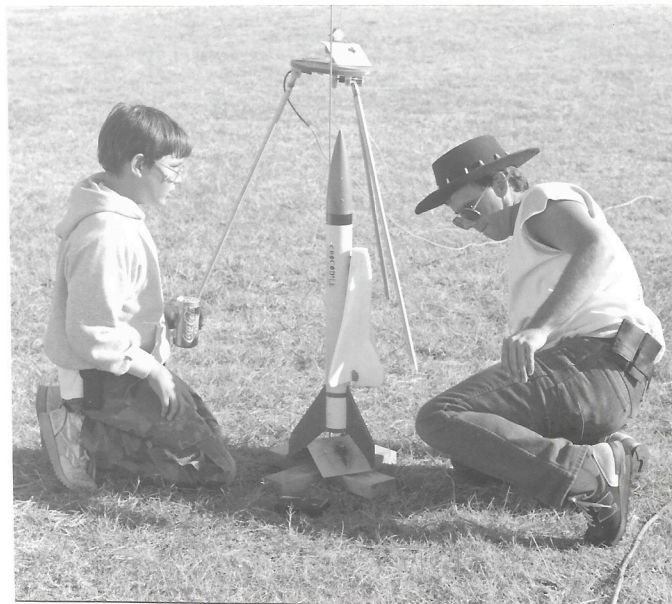
The launch was part demonstration and part predicted duration contest. HARA was only going to provide the range facilities and SEDS was going to run the contest, but like last year, we had to end up telling everybody what to do.

The predicted duration event was interesting. You kept picking numbers and making flights until you were as close as possible. Mitchell Edwards, in the "open" division, precisely converged to 41 seconds on the third flight of his *Mean Machine*. But he launched it twice more, along with four *Phoenix* flights. At each shot, he would call out his time to the firing officer, who would launch the model, but neither record the time or use a stopwatch, since Mitchell had already won.

Kelly Alexander was the only entry in the "novice" di-

Above right: Mark Atkinson helps Crocodile Wayne hook up a *Maxi Alpha* and glider.

Below: Mitchell Edwards preps his *Mean Machine* for another flight at the SEDS contest at UAH



vision and was uncontested until Mark Atkinson signed up at the last minute. His prediction was better and won. (*Don't tell anyone, but we know Mark's not a novice!*)

The drama of the competition came in the "Club" category Sigma Chi Gamma came from behind to beat PIKE by 2.3% to 2.9%. Their success was a move to larger engines and longer times when they realized one second off of 30 seconds was a less percent difference than one second off a 7 second flight. (*And they say college don't learn you nothing!*)

The highlight of the launch was the delivery of Domino's pizza, courtesy of SEDS. As the pizza was going down, more rockets were going up by Wayne Hendricks and Mark and David Atkinson. Jimmy Williams took time out from a busy schedule to bring out the range equipment. Other HARA members dropped by, but it was the college crowd that did most of the flying.



STAR TREK

THE SYNDICATED
GENERATION

CAPTAIN'S LOG: THE ENTERPRISE IS SUDDENLY HIT.

SPOCK!
WHAT
HAPPENED?

COMPUTER
ANALYZING.
(press any key
to continue.)

SENSORS INDICATE A
MAJOR DISTURBANCE
IN THE SPACE-TIME
CONTINUUM.

CAPTAIN, MY CHRONOMETER
HAS MALFUNCTIONED.
ALL THE DIGITS READ-
EIGHT!

THAT IS NO MALFUNCTION, ENSIGN.
THE DISTURBANCE HAS WARPED
TIME AND SPACE
AND BROUGHT THE
ENTERPRISE TO THE
SOURCE.

SO, WHERE ARE WE?

EARTH!

AT ONE OF THE LAGRANGIAN-
EINSTEIN NODAL POINTS.
SPACE COORDINATES: ALL ZEROS

CORRECT.
TIME
COORDINATES:
ALL EIGHTS

MEANING 8-8-88,
BUT THAT DATE
ON EARTH WAS-
NARAM-30!

PRECISELY, BUT THERE HAS
BEEN SOME DISTURBANCE
TO DISPLACE US. SENSORS
HAVE LOCATED IT.

TRANSPORTER ROOM:
LOCK ON TO
COORDINATES.
ENERGIZE!

ED AND I ARE GLAD TO BE OUT
OF THE COOLER! THANKS FOR
YOUR SUPPORT!

2B CONTINUED!

HARA Activities

HARA Christmas Party A Bonanza!!!

One of the best attended HARA activities was the HARA Christmas party at the Bonanza on University Drive. Invitations were mailed to all those on our HARA membership list and we had a really good turnout.

Everyone lined up for an "all you can eat steak and salad meal" for only \$5.00, as the club picked up the rest of the tab out of our NARAM and Patriot contract profits. The Bonanza people wisely segregated the HARA group in a separate room, away from the general population. (After all, these people regularly inhale the fumes from rocket motors and epoxy! There is no telling what kind of crazy stunts they'll pull.)

A good time was had by all, as it was nice to just sit and socialize without the hustle of a contest and the roar of rockets going off nearby. It was generally agreed upon by those in attendance to make this an annual club event.

Now, about our HARA Summer Party.....
Stay tuned...!

LOFT Lifts Off

After a year of delays, the Launch Operations Flight Test (LOFT) got off the ground. The N-3000 motor erupted to life at 7:45 am on November 17, 1988 sending a Huntsville payload out of sight above Cape Canaveral. Although the main parachute failed to fully open, the instrument capsule was recovered intact after splashdown off the Florida coast. The booster was expendable and not recovered.

The launch was historic for two reasons: it was the first commercial launch at the government firing range, and it used model rocket technology in a professional application. The entire project was merely to test range procedures, but it became an opportunity for free payload space.

Wayne McCain and David Babulski were the payload specialists on this mission. Wayne's efforts represented UAH and Thiokol, while David was in it for a high school experiment to fly seeds.

The seed experiment was begun by a Brookwood High School science class of Snellville, Georgia in late 1987. But as LOFT loitered in limbo, Brookwood had to fly the seeds on BABE-1 to finish the experiment before they graduated. The Johnson High School class taught by Jayne Russell here in Huntsville took over the seed payload to support the LOFT flight.

(Ed. Note: The following letter was sent anonymously to MAX-Q HQ for publication. Strangely enough, the post mark was the North Pole. You don't suppose...nah!

Anyway, MAX-Q and our readers want to know if Wayne got all his wishes)

Dear Santa Claus,

I have been a very good boy this year. I have tried very hard to do all the things that I should do and not get into too much trouble or cause too many problems and because of that, I wanted to let you know the things that I would like to find under my tree on Christmas morning. I'm counting on you Santa, because my checkbook says that I'm spending too much money on model rocketry and this is stuff that I just have to have! So here's my list Santa, see what you can do!

1- Motors, motors, motors!! Composite, of course. Especially those Aerotech F41 and G60 White Lightning motors that North Coast carries. And while you're at it, how about some competition motors that never cato. This would make me very happy, Santa! (Especially after NARAM and what happened to my Giant Sport Scale model!)

2- A case of ignitors that never misfire.

3- Another Saturn V kit. (See #1)

4- Parachutes and streamers in assorted sizes that always eject just right and never get their lines tangled.

5- A fool-proof thermal detector (I know there's got to be one out there somewhere) so I can catch the really good thermals every time and beat Matt and George.

6- Duration models that have a weightless homing device so I can always get a return without a lot of chasing and still get the best possible time.

7- How about a North Coast Magna kit with its 7 clustered G motors, just for excitement.

8- Several sheets of sticky back mylar.

9- Tracking powder that can be seen in every kind of sky conditions.

10- Some full color Crocodile decals for my models.

11- As long as I'm listing my fantasies Santa, how about one of those Enertech launch pads we heard so much about that were never shipped?

12- While you're at it Santa, how about giving the boys at the FAA in Washington a little nudge and get them moving on the new NAR weight limits. There sure would be a lot of happy rocketeers throughout the country if you could pull that one off.

I guess that about does it for this year. Thanks a lot Santa and have a Merry Christmas and a very happy New Year. See you next year!

Wayne Hendricks

Rocket City Classic (continued)



HARA members were very relaxed and almost recovered from the August Olympics. Contest Director Wayne McCain merely had to start things and then coast through the day. Judge Coordinator Vince Huegele had no problem with the experienced volunteers. John Kmetz Sr. did have to stay on his feet acting as Range Safety Officer. Jimmy Williams did his usual fine job of fixing clips, cleaning rods, and making the range work. Gloria Johnson greeted and registered contestants.

Wayne Hendricks, George Gassaway, and Carl Gustin were around to fly demos for the crowd. Representing Wilson's Hobbies, Marty William's had a spread of rocket products under his van canopy. Helping in the recovery team, John Kmetz Jr. brought back a lot of mud on himself along with the models.

The most memorable demo of the day was George's D Roto-Roc flight. After a nominal boost and deploy, the helicopter was spinning down not far from the launchers. Crocodile and Vince had casually eased underneath the descent for a photo opportunity. But at about 75 feet—"uh oh!" The descent stopped and the model hung in the air. Then it started getting *smaller* in the viewfinder. The imminent touchdown was moved to two minutes later and across the Parkway. Crocodile recklessly chased it all the way, but was triumphant in recovery and survival.

Not so fortunate was George's famous Star Wars X-Wing glider. The unique bird did not deploy its clear canards and it dove to the ground. The Force finished it.

The contestants were novices only to competition. Many well crafted models passed through the judges tent. And flight performance showed the builders knew what they were doing. One mylar parachute was still thermalling around the airport at awards time.

The point scoring system appeared confusing but still came out to give the best awards for the best performance. The better modelers rated high in several events, but the single prize restriction rewarded more modelers. Steve McClure netted the most points of the day, majoring in Scale and Craftsmanship to win the Meet Champion Rocketeer Award. The results in Duration were: first, Robert Bond flying a Blue Bird; second, Charles Smith with a Liberty; and third, Carolyn Smith on an Alpha. The highest altitude in order were Russ Cowart's Comanche, Markus Halbritter's Yankee, and Greg Forsyth's Zinger. The best craftsman were Brent Goode with a Manta Bomber and John Tansy with a Cougar. Scale winners were Richard Smith's Mercury Redstone and David Stewart's Nike Apache.

Excellent prizes awaited the victors. The Meet Champion and first place winners received a trophy, a hardback copy of *America in Space*, and a nice Estes kit. Second place winners got Dart kits and Sky Hooks went to those in third. All winners were given passes to the Space and Rocket Center. And every contestant got a leftover NARAM-30 bumper sticker with a hard sell on HARA and NAR applications.

As the range cleared out, speculations were made on the lower modeler attendance. "Maybe the weather was too good, and people did other things," said Wayne McCain. "Or maybe we've already reached the most active rocketeers in the area. Either way, it was still a good launch."



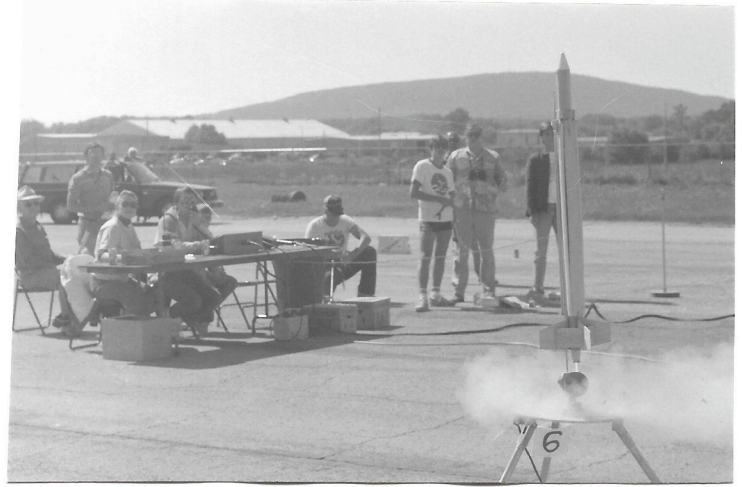
Above : Steve McClure, winner of the Classic prepares to launch a Star Wars Figurine (or is that Mr. Bill?) in a sport payload model.

Top left: Would you buy a rocket from this man? Marty Williams sells supplies for Wilson's Hobbies.

(Clockwise from right)

1. George Gassaway's "D" powered Rotoroc blasts off. 2. Carl Gustin and family prep some large models. 3. Gloria Johnson signs in a contestant where the Club National Championship Trophy and Pennant are on display. 4. Emily McCain makes her debut at the *Classic* with mother Dana. 5. Wayne McCain, Gloria Johnson, and Vince Huegele announce the winners and present the prizes.

[photos by Huegele and Hendricks]



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Please check your name, address & phone number to be sure they are correct. If there are corrections to be made, call Robyn at 883-6020 evenings .

Countdown and 1989 Contest Events

Countdown

JAN:	19 Jan, *Bonanza Steak House 7:30; 4711 University; Club meeting
FEB:	16 Feb, 7:30; Club meeting 18 Feb: Turkey Shoot Regional (Makeup Contest from Nov)
MARCH:	16 Mar, 7:30; Club meeting 18 Mar: Spring Fling III Regional
APRIL:	20 Apr, 7:30; Club meeting 22 Apr, Sport Launch 22 Apr, Regional Meet in Atlanta
MAY:	18 May, 7:30; Club meeting 20 May: Redstone II Regional
JUNE:	15 June, 7:30; Club meeting 17 June: June Jam III Regional
JULY:	4th July: Flyoffs for 1990 US/USSR Team Allentown, Pennsylvania 20 July, 7:30; Club meeting 22 July: Sport Launch
AUG:	7-11 August: NARAM-31 Manassas, Virginia 17 July, 7:30; Club meeting
SEPT:	21 Sept, 7:30; Club meeting
OCT:	7 Oct: Rocket City Classic 19 Oct, 7:30; Club meeting
NOV:	16 Nov: Club meeting
DEC:	Club Christmas Party TBD

**Please Note:* We have lost our meeting place!! January 20th meeting will be held at the Bonanza Steak House at 4711 University (where we had the Christmas Party). Come at 6:30 to eat with us, the regular meeting begins at 7:30 (You don't have to eat to attend the meeting). Please come with suggestions as to where we can hold our regular meetings.

Launches are held at the Old Airport unless otherwise announced.
(1989 Schedule pending approval of COHPAR)

1989 Contest Events

Turkey Shoot Regional Events (Make up from November) 18 February, 1989

Sport Scale	Multi Round A HD
B Streamer Duration	Multi Round B RG
B Eggloft Duration	Predicted Duration
Precision Duration (30 sec)	

Spring Fling III Regional Events 18 March, 1989

Sport Scale	B Helicopter Duration
B Boost Glide	Plastic Model
C Eggloft Duration	Predicted Duration

Redstone II Regional Events 20 May, 1989

Sport Scale	B Helicopter Duration
B Streamer Duration	Multi Round B BG
D Dual Eggloft	Predicted Duration

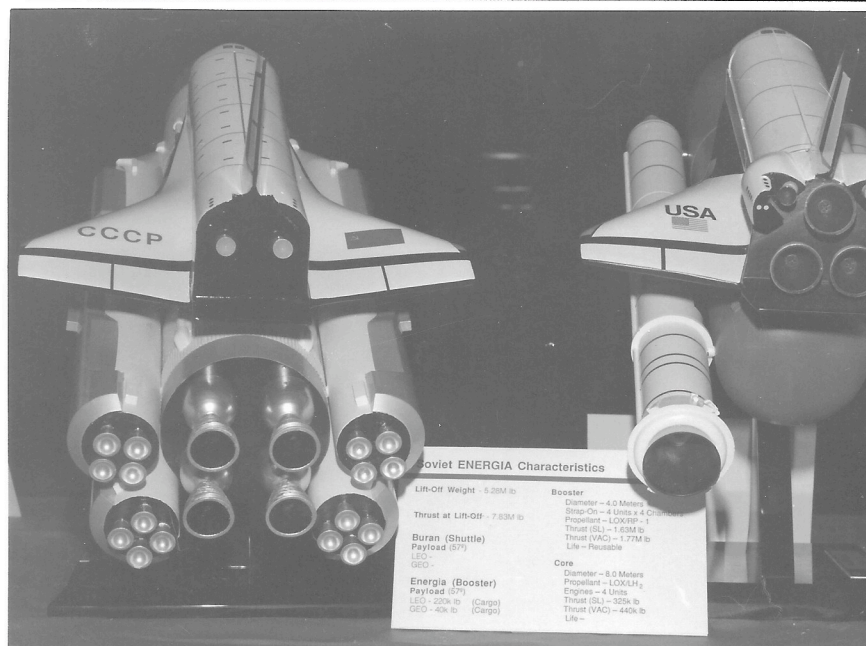
June Jam III Regional Events 17 June, 1989

Sport Scale	Multi Round C SD
Plastic Model	Multi Round B BG
B Eggloft Duration	Predicted Duration

NARAM 31 Events Manassas, Virginia 7-11 August

B Boost Glide	C Payload
A Rocket Glide	D Eggloft Altitude
C Streamer Duration	B Helicopter Duration
1/2A PD	Plastic Model Conversion
B Altitude	C Scale Altitude
RCRG	R&D

From Russia With Love



So that you know they know we know, we're printing a photo of a model of the Soviet Shuttle (see above photo). This 1/100 scale model of a Buran on Energia is shown compared to the original American edition. This view reveals much detail of the engine cluster.

Don't look for it in hobby shops. The display was in the lobby of MSFC headquarters. Vince got his badge scrutinized while taking this picture. (But then we all know what a shady character Vince is anyway!!!)

U.S. and USSR Go Head-To-Head for the Gold

The superpowers pushed the button on each other at Wallops Island, Virginia September 30 through October 3, 1988, in the US/ USSR spacemodeling competition. HARA's George Gassaway was there representing America's best in gliders. Shown at lower left with some of the loot from the meet, George won gold in B Boost glide (696 seconds) and bronze in E Rocket Glide (700 seconds).

Overall, the U.S. Team did very well, edging the Soviet team in the overall medal count. The U.S. dominated Rocket Glider, Boost Glider and Scale Altitude. Bob Biedron had a beautiful Arienne, that was in first place in static points. It was marginally unstable, and crashed! The Soviets won scale with their Soyuz models that split into seven pieces upon recovery. Bob did win the gold in Scale Altitude.

One of the highlights of the meet was the launch or a full size Black Brant XII sounding rocket. Both the U.S. and USSR teams were able to see the launch from a relatively close distance.

And in case you're interested in what the big souvenir item for the Soviet team members was...Sony Walkmans! Each team member purchased a Walkman, extra batteries and cassette tapes!

The Soviets will hold a similar meet in Moscow in 1990. tryouts for this team will be held in Allentown, Pennsylvania on the July 4th long weekend. All NAR members are welcome to participate in the flyoffs for a spot on the 12 man team. George and Matt have further details if you are interested.



... and more wadding scraps

Dues Due!!!

All HARA members are advised that their 1989 membership dues of \$6.00 are due at the first of the year. Despite the healthy club account, HARA Treasurer Wayne Hendricks expects prompt payment, or he will send someone over to "break your kneecaps". Dues have not increased and they're a small price to pay to belong to NAR's number one section. Election of club officers for 1989 is also an upcoming action. If there are any changes in personnel HARA desires, this is the time for those decisions. Have your nominations ready for the January meeting, Thursday the 19th at 7:30 pm.

Remember Traci Reeves- the North Coast Cover Girl? You won't after you see the new girl on the cover of the 1989 NCR catalog! We have, and she can really model rocketry!

Rocket Strobe

There's a magazine out with a picture of an Estes Phoenix on the cover. The January 1989 issue of *Hands-On Electronics* features a lead article on how to build a strobe light beacon for a model rocket. A parts list, schematics, and full instructions are given. This would be a good project for your first electronics payload.

Opus and the MAX-Q gang hope you had a very happy holiday season and wish you much happy flying and many thermals in the new year.



The January 19th meeting will be at the Bonanza Steak House at 4711 University Drive. Come at 6:30 to eat, the regular meeting will be held at 7:30 in the back room where we held the HARA Christmas Party. (You don't have to eat to attend the meeting.)

Turkey Shoot Scrubbed

For the first time in HARA's contest history, a NAR sanctioned event had to be scrubbed. The November Turkey Shoot was rained out on the 19th and blown out on the 20th.

"This has never happened before," said CD Matt Steele, who felt the weather left no choice. The heavy showers Saturday abated early Sunday, but the wind from the passing front was still beyond the limits. "The deal with the weatherman was perfect air for NARAM at the expense of our next contests. So now we're paying. It's most disappointing for the visiting contestants," he said referring to the two rocketeers from Orlando and the seven from Atlanta who all came to compete in the regional. Birmingham residents Carl Gustin, David Stewart and George Gassaway had to go home in the rain too, even though they are HARA members.

The contest is rescheduled for February 18th with the same events. Watch for updates.

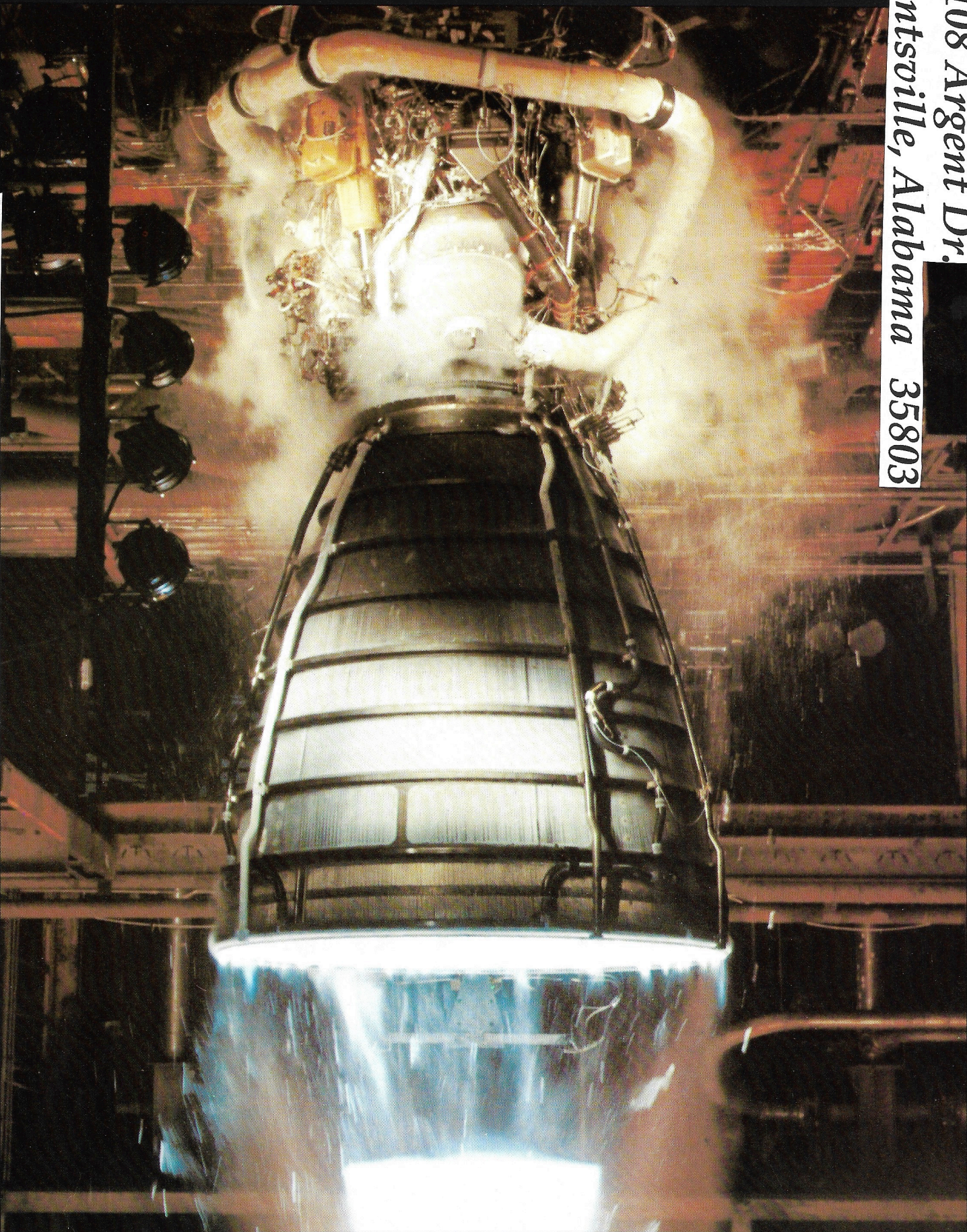
HARA Awarded Patriot Contract From Thiokol

Wayne McCain is threatening HARA's non profit status! The Thiokol Christmas banquet committee wanted some small rockets in the table centerpieces and asked Wayne if he could help. Wayne sharpened his pencil and struck a deal for twenty models vaguely resembling a Patriot.

The only parts required would be noses, tubes, and fins. When they came in, Wayne Hendricks made and put on the fins while Jimmy attached the noses at the Williams' shop one night. The McCains did the painting that turned out rockets with red noses, white bodies and green tails. The committee was delighted. (Ed. note: They looked good at the Thiokol Christmas party too. But we couldn't find the one that we just knew Matthew had painted!!!)

HARA collected \$4.00 apiece for these "missile toes" that cost less than \$2.00 in parts. However, this \$40.00 profit was quickly eaten at the HARA Christmas party held at Bonanza on December 7th.

Huntsville Area Rocketry Association
11108 Argent Dr.
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space shuttle main engine

**See Countdown for change in meeting place!*