



# SNOAR NEWS

SEPTEMBER 1985  
VOLUME 11, NUMBER 7

Totally Redesigned for the '85-86 Newsletter "Contest Season"  
(After all, if something works, why not screw around with it?)

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## COVER STORY:

"Roger Houston, Patriot vehicle preparing for launch, have the Tracking and Data Relay Satellites ready": Matt Steele puts his incredibly small D7 powered Scale Altitude model of the Patriot Missile into the tower, before it's 1 Kilometer +7 meter flight (1007 meters)!!!

## CREDITS:

Editorial Director, Publisher, Subscription Collector, and Trustee:  
Matt Steele, 5655 South Fallwood Drive #31, Salt Lake City, Utah 84118

Acting Editor: George Gassaway

Posing Editor: Chris Pearson

Missing In Action Editor: Tony "Maddog" Williams

STAFF, CONTRIBUTORS, AND UNKNOWING HELPERS: Chas Russell, Bonnie Russell, Chris Johnston, Bob Geier, John Pursley, Pat Miller, Scott Hunsicker, Nettie Hunsicker, Jack Kobzeff, Ron Shultz, Debbie Shultz, Chuck Mund, Mike Wagner, Wayne Hendricks, Larry Peters, Carl J. Warner, Terry Lee, Randy Kelling, and Megabytes of others.

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It is produced by a couple of Macs, soon to be a trio of Macs. Who knows, this may become a Sci-Fi story, "Invasion of the Macs". What has Matt started?

This is Volume 11, Number 7

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## FROM YOUR SOMETIMES PRESENT EDITORS:

George here, taking over as editor for this issue while Matt and Chris are over in Bulgaria for the World Championships. I just hope Chris didn't try to smuggle in an L motor for a demo there, or we may never hear from them again. There are a few graphics changes in this issue, in part due to some new fonts, also in part due to having the time to work on some other things. Some are just one-shots as we try new things, others will stay for awhile.

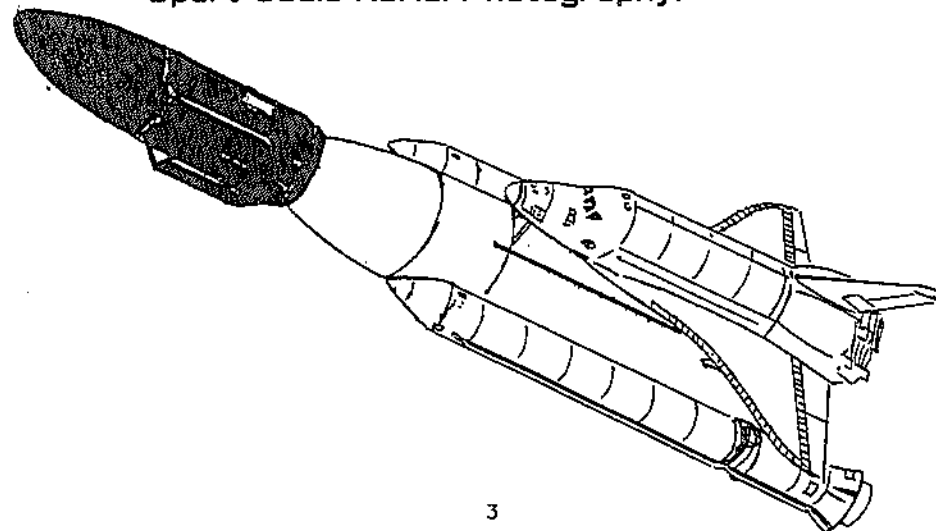
This issue is devoted to coverage of NARAM-27. There wasn't room to adequately cover both NARAM and LDRS in one 20 page issue, so LDRS coverage will be in the October issue. The LDRS coverage will be a lot better that way, as Matt will be able to fill in some areas. The October issue ought to get us back on schedule. Look for coverage of the World Championships in November, and a December issue with some real IMPACT.

As some of you may have noticed on the cover, SNOAR NEWS won the LAC Newsletter Award this year. I know Matt was very happy, and it meant a lot to me too after 10 years of "apprenticeship" with Impact. A lot of credit must go to Tony Williams both for his artwork and overall input, as well as to Chris Pearson. The major contributors for the last year really helped things go well: Bob Geier, Chas Russell, Chris Johnston, Deb & Ron Shultz, Chuck Mund, Wayne Hendricks, Terry Lee, Mike Wagner, even Pat Miller! Our thanks go to you all, and to the subscribers that help keep us going.

Until next time, enjoy!

George and Mac II

## Not Coming Soon: Sport Scale Aerial Photography!



# NARAM-27

## "The SECRET NARAM"

by Chas Russell & George Gassaway

The Johnson Space Center in Houston, Texas was the site for NARAM-27, the fourth time NARAM has been held at the site. The meet was run by Scott Hunsicker, Nettie Hunsicker (taking care of their weeks-old daughter Stephanie Diane simultaneously), John Pursley, Terry Lee, and many other local and distant people. Connie Pursley stepped in on short notice to do a good job of running the National Convention. Claud Greenlee spent the week before the meet to publicize NARAM at local hobbyshops and arranged news coverage on a local TV station and a newspaper article. Claud also helped with NARCON and arranged the door prize program.

Going into NARAM, George Gassaway, Matt Steele, and Chas Russell were 1-2-3 in the C division national standings. There was a bit of confusion over a section meet Matt scored 128 points at but was never received by the Contest Board. It turned out that the points scored at the meet never did get counted, which could have been a major problem if those points had caused Matt to lose the championship. Matt's NARAM flying would also be a bit jumbled, as Matt, Randall Redd & Gary Price would not arrive from Salt Lake City until Tuesday night. So, Matt's models would be proxy-flown the first two days by Chas with some help from George.

Saturday July 20th was spent getting settled in and meeting with the other early arrivals and members of the host section. It always seems that some SNOAR member's room gets to be a major meeting place during NARAM, this year it was Chas & Bonnie Russell's room. Was it any coincidence that they decided it was also a perfect time for their daughter Antares to visit her grandparents? After dinner at the infamous Fuddrucker's, the first of several parties in the Russell's room was kicked off. There were several rumors about various subjects floating around at NARAM, but nobody could tell anybody else about any specific rumor. During the week as more and more different secrets popped up one thing became obvious. This was the **SECRET** NARAM. By the end of the week some secrets were declassified, but others remained.

Sunday was the manufacturer's demo, held after a general model rocket demo held as part of Spaceweek. Gary Rosenfeld of Aerotech and Frank Shultz of PPA flew a lot of long burn motors. Jack Kane allowed Gary to demonstrate the new D10 and E9 18mm engines which had not yet been certified. None of the North Coat Rocketry boxes had arrived, so with no NCR kits to fly Chas used a couple of his own models to demonstrate the E28 and F41 North Coaster's. Estes flew their regular demo.

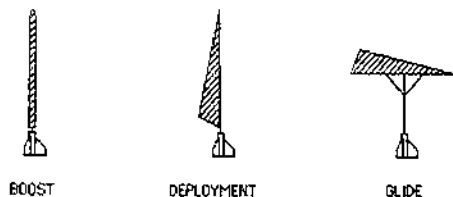
Sunday night was the contestant's briefing and the official beginning of the secret NARAM. Who would Judge R&D and Scale Altitude? It's a **SECRET**. Who was the Contest Jury? It's a **SECRET**. It was obvious that NARAM was not very large, on the order of 50-60 people. Only Ken Mizoi and Harry Rose of Pulsar attended, other Pulsar members at home preparing for the World Championships. In fact, Matt Steele, Ken Mizoi, and Terry Lee were the only people on the U.S. Team who attended NARAM.

The manufacturer's forum didn't reveal too much SNOAR NEWS hasn't already reported. Look for a couple of skill level 3 or 4 kits from Estes next year that might be interesting, but no specifics were mentioned. A hot question from the audience was why couldn't there be some smoke put into composite motors to aid visibility. Gary Rosenfeld and Frank Shultz tap danced around it, with the main reason being a choice of performance over visibility. After all the tap dancing, Gary then dropped a big hint about the future development of a ring that could be easily attached to the base of the engine by the modeler, the ring containing material that would combine with the engine exhaust to generate smoke. Sort of like a "Smoking Afterburner". Not a bad idea if it works out, a lot of people use Aerotech motors in models that are not likely to go out of sight anyway, and they'd rather have the performance. Meanwhile, the Vulcan systems engines which have smoke right now are still awaiting certification tests by Jack Kane.

Monday began the long week of flying. The launch area was a few hundred feet from the previous NARAM's, along the antenna test range. The paved road on the antenna test range meant that there was very easy access to the launch site by car. The NARAM launch area had a large rented tent, about 30 feet by 60 feet, arranged for the prep area at one end and the check-in & launch operations at the other end. This worked out very well, fortunately providing just shade (and occasional model) protection, as there was not a drop of rain all week. The weather was pretty much 95/95 all week, about 95° and close to 95% humidity. We also found out what happens when it doesn't rain, the wind blows! One some days the wind was pretty strong, on others it was just strong, though thermal cycles did create some relatively calm periods. Scott Hunsicker did check-in or launch control during most of the week, while John Pursley was RSO for most of the events. John manned his computer at the field during the tracking events to reduce the altitudes of many models before they even landed. Connie Pursley ran the NARCON range, and kept the convention going back at the motel.

The first event was B Streamer Duration. Chas Russell had the shock cord break on Matt's proxy bird, then had the same happen to his own model. He managed to salvage qualified flight points for them both using a Micafilm streamer for the second flights which worked OK. George got a good first flight of 120 sec but only 79 for the second flight. It was good enough for 3rd overall in C div, behind the Dual Egglofters Team 319 total and Sudden Impulse Team 289 total. Since the first two places were by team entries George got 1st place points for "individual C Division". This was due to the fact that for contest points all teams regardless of age division fly against each other in most NARAM events (except for judging events). This leaves a fallout for the individuals flying in the different age divisions since it is possible to not even place in the top 4 of an event but still score points for 1st-4th place (a sort of interesting if not complex situation to keep in mind while flying because it could affect strategy).

A Rocket Glide was in the afternoon. There were some good thermals that passed through, some strong enough to create calm periods of a minute or two before passing through. Tom Beach of the Sudden Impulse Team blew everyone away with a NOVEL Flex-wing design. In glide configuration it looked like a flexie with a pendulum DT, except that the bottom of the pendulum contained the engine, engine tube, and fins. For boost the pendulum was moved to the rear of the flexie and the flexie folded up. Burning thread was the method used to hold it closed and release for glide. It boosted well and also hopped a great thermal for a time of 311 seconds, and landed just a few hundred yards away. He won on the strength of that flight, a second flight with a more



Tom Beach's Flexie R/G Design

conventional design DG'ed. Chas flew Matt's R/G off a piston as directed, but it came off the piston squirrely both times for short flights. George had his slide-wing boost well but develop a spiral glide into the asphalt, shattering the fuselage, for 19 seconds. The back-up model turned in a decent 106 seconds to take 5th place overall, but 2nd place individual points. Chas Russell's slide wing got 74 seconds on the first flight. For his second flight there was some drama as it was the NIRA thermal pickers versus the SNOAR thermal spotters, even more interesting without any thermal poles set up. Chas was the only one of three modelers waiting for the thermal to get it, for a flight timed to 129 seconds but up a lot longer. Chas's total was good for 3rd overall in C Division, but as the 1st & 2nd places were teams he got 1st place individual points.

Monday night was the Association meeting. The first order of business was the trustee election, those who had not voted by mail voting in person. As the votes were counted, Pat Miller went over the "State of the Association" before opening up the floor for input from the membership. See "NAR News From NARAM" elsewhere in this issue for details.

There was not a lot of activity during the Association meeting itself. One motion was to amend the By-laws to allow NAR members to fly High Power Rockets without jeopardizing their membership. The other motion was to draw up an amendment to the By-Laws ensuring a secret ballot (another **SECRET!**) in all elections and By-Law amendment votes. The existing system requires the NAR # and name of the voter to be written on the ballot.

Finally the trustee election results came in. The 13 trustees elected, in alphabetical order: Jay Apt, Mark Bundick, Vern Estes, Claud Greenlee, Scott Hunsicker, Jack Kane, Howard Kuhn, Dan Meyer, Pat Miller, John Pursley, Matt Steele(!), Chris Tavares, and John Worth. The Association meeting thus ended, and a meeting of trustees followed with the following officers established: President- Pat Miller, Vice President- Mark Bundick, Secretary- Chris Tavares, Treasurer- Scott Hunsicker.

After NARAM there was another Trustee development. Jay Apt, recently chosen by NASA as a Shuttle Mission Specialist, had to resign his official duties in the NAR. The reason was that because the NAR receives donations from Aerospace firms, Jay's NAR activities could constitute a conflict of interest. Well, if you had to chose between the shuttle or being a Trustee, what would you pick? Subject to approval by the rest of the Board, Pat Miller appointed Chas Russell to take Jay Apt's place on the Board of Trustees.

After the Association meeting there was another party in the Russell's room. A highlight was "The Call" to inform Matt he had been elected trustee, which involved Mary Roberts, Bonnie Russell, Chas, and George. Matt also got the news on how his proxy flights had gone, with Chas telling him that George paid more than Matt did. The party got pretty strange with sick jokes & Pat Miller rolling on the floor laughing. Mary Roberts mentioned that her husband is a carpenter. She doesn't bring him to NARAMs, she leaves him at home "barefoot and pregnant".

Tuesday morning began with 1/2A "International" Parachute Duration. This was really more like "Three flights with 240 sec maxes", because it was not flown in rounds. Why wasn't it flown in rounds? It's a **SECRET**. About an hour's worth of flying had been made when the Johnson Space Center security shut us down. The wind was taking models off the field into the Center itself. Reportedly one model landed on Mission Control itself, causing someone from security to go ape. There was also a claim that models landing in the employee parking lots might damage cars, valid for egglofters perhaps but not PD birds. At any rate, the announcement was made to go back to the motel and return at noon to fly B Helicopter, very surprising since that was supposed to be Thursday afternoon's event. When flying resumed at noon a NASA representative was on hand to satisfy the security people, presumably to suspend flying when the wind blew towards the center. However, the wind never blew that way again for the rest of the week. Another result was the moving of the NARCON range from its' original location about 800 feet from the NARAM site to within 100 feet (the only positive thing about the shutdown). This made for a lot better interaction between NARCON and NARAM flying. What was really going on regarding the shutdown, JSC security, and NASA? It's a **SECRET**.

Later on after a lot of B Copter flights had been made, the PD flights were allowed to resume. Chas saw Matt's 1st flight veer off at liftoff, but nobody saw it land. Matt's 2nd flight went unstable. So, it was with a feeling of some accomplishment when the 3rd flight worked for 171 seconds even if it just meant qualified flight points. Chas had flights of 132 and 168 seconds for the first 2 flights. Chas' 3rd flight used a big mylar chute, but it didn't open fully for a 51 sec flight to finish out of placing. George had some bad luck and good luck when the chute didn't open fully on the first flight and got just 49 seconds. But it meant that he had two models for the next two flights which flew for 218 and 240 seconds for a 3rd place total of 507 seconds. Compare this to the Ruptured Duck Team (George and Dave Cook) who had perfect 240 second maxes for their first two flights but couldn't find either model to make a third flight. As strong as the wind was blowing, it was very hard for anyone with a max to find that model. Tops in C division was Don Linder Sr. with a total of 578. Harry Rose had the top score of the meet, winning A Div with 648 seconds.

Matt's B Copters were in Salt Lake City, so it was some relief to Chas that if Matt's flights were not destined to be good, Matt would have the honors. Chas did pretty well with a Rotaroc, with flights of 71 and 72 seconds, special assistance in thermal picking responsible for that huge one second increase in time on flight #2. His score was good for 3rd overall, and 2nd in individual points. George had the incredible happen, the first flight of his Rotaroc failed to deploy and it smashed into the asphalt. Fortunately the second flight deployed and caught a thermal. The thermal caused it to maintain altitude for awhile, before losing it and landing at 169 seconds. That score was good for second place overall and 1st in individual points. The Dual Egglofters team took first overall in C Div with a total of 178 seconds, but second in Team points behind B Division's East Meets West Team's 212 second total.

Late Tuesday night was the big "Waiting for Matt to Arrive" party. The later it got though, the less chance there was that people would be capable of recognizing him. Finally, Matt did arrive, along with Randall Redd and Gary Price of the "Mormon Mafia". At least more people did recognize the real Matt as Matt than the other Salt Lake City imposters, mainly because he was the only one of the three with a beard.

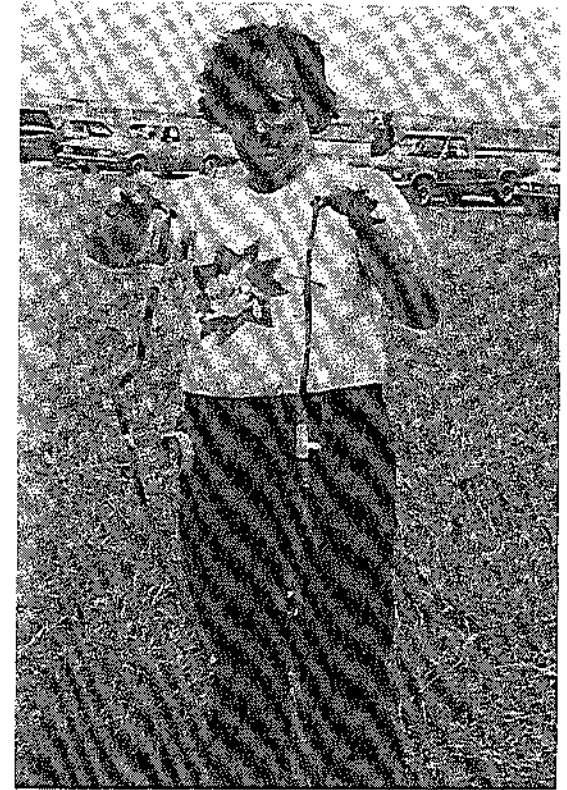
## Ric & Bob

Wednesday morning was D Eggloft altitude. Trackers had trouble with the D7 models due to lack of smoke and patchy clouds for little or no contrast. Gary & Randy got into the feel of things with a couple of DQ's. George had a good flight on a D7 go untracked and left it at that. Matt whipped out a familiar model, an egglofter the Zunofark team didn't use two years ago in Houston, still with some mud on it. Matt had never had an altitude single egglofter work and get tracked, but he broke his string. Just that the model landed far far downwind and was almost given up on before it was found. Chas Russell used the same strategy Matt did, wait for the clouds to move so the trackers would see clear sky, and he also got a tracked and returned D7 flight. Matt's 501 meters took 2nd place and Chas' 549 meters took 1st place. Scott Doctor, who had DQ'ed in everything up to that point, had a great flight good enough to win, but his model drifted into a restricted area and never was recovered. Apparently all of the A division placing entries used visible D12 power, with Troy Statton winning with 362 meters. Only Mark Schmitt managed a Qualified and tracked flight in B Division, a strong 539 meters. This was the event where things also finally began to get exciting. Tom Beach's staged C Egglofter had the first stage engine blow and the second stage lob itself onto the tent, scorching a small hole into it. It turned out that the 1st stage cato had caused the 2nd stage engine nozzle to fail, otherwise the model would have thrusted away on the 2nd stage. Indeed the second stage did thrust away when the booster blew again when Tom made a second flight. He was seen prepping it for yet another flight later.... Someone avoided the staged prang situation by using an ES in their model, which quickly became a horizontal crash as it weathercocked into the strong wind. Then there was an egglofter that took off well and people forgot about. Forgot until there was a loud "whap" as the chuteless egg capsule plummeted from the sky onto the tent. No damage to the tent, but who's egg capsule was it? It's a **SECRET**.

Well, Wednesday's event was over, but Tuesday afternoon's event, 1/2A Int Boost Glide, bumped by Thursday afternoon's event, was announced at the last minute as being held Wednesday afternoon. Why? It's a **MYSTERY**. The high winds may have deterred a few from flying flexies, but that was a mistake. Flexies blew away the little balsa models, most flexie "wind" problems being trying to trim them at ground level into winds several times their glide speeds (trying to trim a 20 mph solid wing glider into a 60 mph wind would give a lot of problems too). Chas Russell put together a total of 222 seconds for 4th place overall, 3rd in points. Matt turned a poor 18" flexie into a decent 12" flexie to total 230 seconds for 3rd overall and 2nd individually. George maxed the first two flights but missed a thermal one the 3rd for a 255 total for 2nd overall and 1st individually. The top score was the Dixie Cats, Terry Lee and the missing Lawrence Berclini, with a perfect three maxes and with their original model returned all three times daring anyone to cause a flyoff. Also during the B/6 event, Matt, Gary, and Randy were allowed to fly their helicopter models. Gary Price's 93 second total was enough to gain him 4th place individual points. Matt & Randy's flights weren't enough to affect the rest of the results.

One secret was out of the bag, the Scale Judges. Matt & Chas started judging A & B Division but Matt was interrupted by people needing to talk to him, like Pat Miller, so John Pursley helped Chas complete the judging. Rob Justis took care of the C Div D Scale Alt models. No party that night, but there was the Texas Bar-B-Q. During the film session, there were assorted and sordid films shown, such as NASA prangs, Ric Gaff's Star Trek Bloopers & Prang films, and George's Prang films. Randy and Gary were intrigued by some of the prang films, including some scenes with Matt in action.

Right: Ric Gaff shows the remains of his C superroc, which crimped and landed on Bob Kaplow.



Below: "This is not a food container". Bob Kaplow with the plastic Long John Silver's food tray (food container). It was converted to fly on an assortment of different engines, including a second tray for staged flights.





Thursday morning was C Superroc Altitude, and more entertainment. A lot of superrocs bent or crimped under thrust. Some may have been due to the wind loads on the pad and in the air, but most would have happened on a calm day, too. Matt's risky BT-5 model with a short BT-20 tail worked, but there was too much for the engine to push out so the engine popped out. The model came down onto the hood of Mark Johnson's blue car, the red tracking powder turning it purple. It caused no physical damage, but a couple of spectators sitting on the hood at the time got red tracking powder stains on their clothes (perhaps other stains as well). If they were really watching, why didn't they move? Randy fell victim to "Pulpus Crimpus" in flight, but the model did manage to bounce into another blue car as it landed. Ric Gaff's crimped superroc avoided potential lawsuits with car owners by hitting fellow club member Bob Kaplow (nice try Ric, use a Dual Egglofter the next time you want to hit a Dual Egglofter). Some Superrocs even worked well, Chas Russell flying a 128 cm model to what looked like a good altitude. Matt got a BT-20 & BT-5 back-up model to work well. George had a NARAM-25 legacy too, a 185 cm BT-5 model with 3" of BT-20 at the base which had popped the engine 2 years before. This time the engine stayed in, and the flight seemed good. No results were posted after Wednesday though so there'd be some **SECRETS**, uh, surprises left for the awards banquet. It turned out that Matt took 4th place points, Chas took 3rd place overall and George took 2nd place overall, 315 points to 314. Fittingly Mark Johnson, whose car got the surprise new Tempera paint job, won the event with 1035 points on a 129 cm long model. The Dixie Cats took 4th overall, but their 989 total gave them first place Team points.

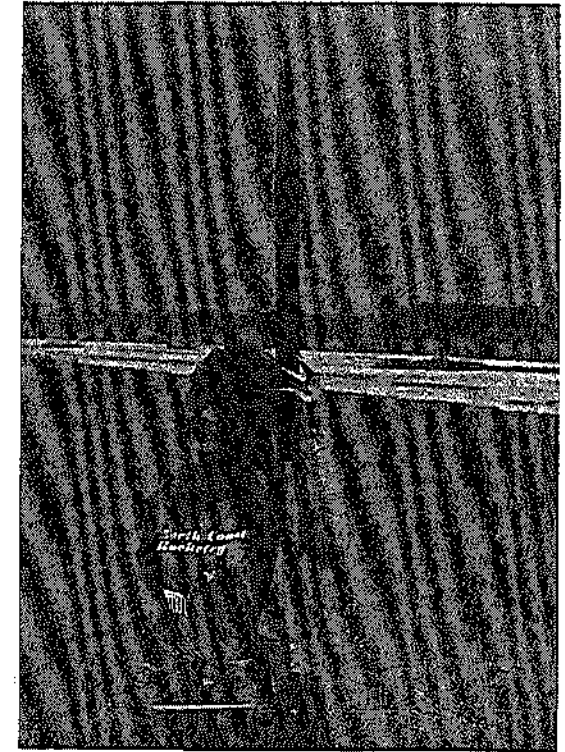
Thursday night Gary Price, Randall Redd, Chas & Bonnie Russell, Matt Steele & George Gassaway went out to a good place to eat, something that doesn't happen much at NARAM. The name of the place was Gallagher's, so we were a bit wary of Sledge-O-Matics near the salad bar. (no relation, actually)

Afterwards were supposed to be the R&D presentations. When? It's a **SECRET**. Where? It's a **SECRET**. Finally a room was arranged and presentations began. Ken Mizol of B Division's East Meets West Team had an interesting report on the boat-tailed fiberglass body tubes he designed for the FAI PD event, since the FAI now requires most models to be 18mm diameter for half of their length. Aside from fabrication and light weight, the design was also clever. No engine mount tube is used, just a single centering ring for the top of the engine. The small diameter tube base acts to align the bottom of the engine. The engine has tape wrapped around the top to keep it from ejecting, as the engine is inserted from the top of the tube. A wrap of adhesive mylar around the protruding base of the engine keeps it from shooting forward. Matt's report concerned the uses of graphite in model rocketry, for fins, wing reinforcement, and body tubes. He produced a graphite 18mm tube weighing about 2/3 as much as a BT-20 paper tube, for use in his FAI flex-wing boosters. Both of these reports won their respective divisions easily. Only 3rd & 4th places were handed out to the other entries in A/B and C Divisions (unless it's done in other events too, skipping places still makes no sense).

Late in the night the Scale Altitude static scores were posted. In D Scale Altitude, Chas was third, George was 4th, Matt 5th, Randy 6th, and Gary 8th. The first place model was a beautiful Black Brant by Bruce Carey, but at BT-55 size it was not likely to fly high. Tom Beach's 2-stage Aerobee 350 seemed likely to have problems of some sort, as it did at NARAM-23. The "Gang of Five" of us had a discussion on how to go about flying the event, realizing that there was a good chance we could move up and place well.

## Trots n' Bonnie

**Right:** Bonnie Russell takes care of Chas' 4-C cluster demo bird. She may be smiling because it's the last flight at NARAM.



**Below:** Chas Russell hooks up the clips to a boilerplate IQSY used to find out if the trackers could see D7 powered models.



Friday morning began with a clear blue sky, but by the time flying began some clouds started to build. Matt & Chas flew George's back-up IQSY Tomahawk on a D7 to see if the trackers could see D7 models, in the middle of the boost a tracker was overheard saying "A piece of cake, no problem". The clouds could still be a problem, it was just a matter of waiting for them to move out of the tracker's viewing background. It seems that the blue sky was quite clear, as opposed to Wednesday when there was some upper level haze. Only one model went untracked, and that was Tom Beach's staged C6 Aerobee as it weathercocked severely into the wind. Our "Gang of Five" increased to six as Bonnie Russell joined in to aid in spotting, recovering, and other areas. George had a good flight, but found out on recovery the engine had popped out for a DQ. As it turned out, it would not have placed anyway. Bruce Carey's Black Brant also suffered an engine ejection. Chas' IQSY Tomahawk tipped off a bit out of the tower, reducing the potential altitude. Randy's IQSY Tomahawk and Gary's Black Brant III both had smooth flights. And to top it off, Matt's Patriot model sizzled away arrow straight, any questions about dynamic stability answered. He heard over the headset communicator while recovering his model that the model had been tracked and closed, virtually assuring first place due to the Patriot's low drag and high altitude potential. Though the results were being kept SECRET for the awards banquet, Matt did find out that the track closed at 1007 meters, extremely good. Matt obviously won, but we could only guess how things had gone for the "Gang of Five", it was possible that everyone except George had placed, but it would have to wait for the awards banquet.

Some special demo flights were made at the convention range during the week, with a number of launches on Friday before the flying ended. Randy had a couple of impressive models utilizing Papier-Mache construction. One was a 1:1 scale frog, complete with pop-out-tongue recovery. Unfortunately it wasn't stable. The other model was of the "Pigs in Space" spaceship. It boosted great, but had recovery system failure. Bob Kaplow kept flying a Long John Silver's plastic food tray UFO style, eventually leading to a 2-stage flight which worked (using Tom Beach's batch of detonating C's, which didn't). Matt & George made some test flights of a slide-wing R/C R/G. An E10 caused the wing to flutter, buzzing audibly, but it held together for a wild boost that was more horizontal than vertical. A final test on an E6 was also unusual, as the glider proved to be too heavy and the thrust of the E6 barely pulled it into the air fast enough to keep the control surfaces effective. Chas finally got the chance to fly his 4-C engine cluster bird, which put in an impressive flight.

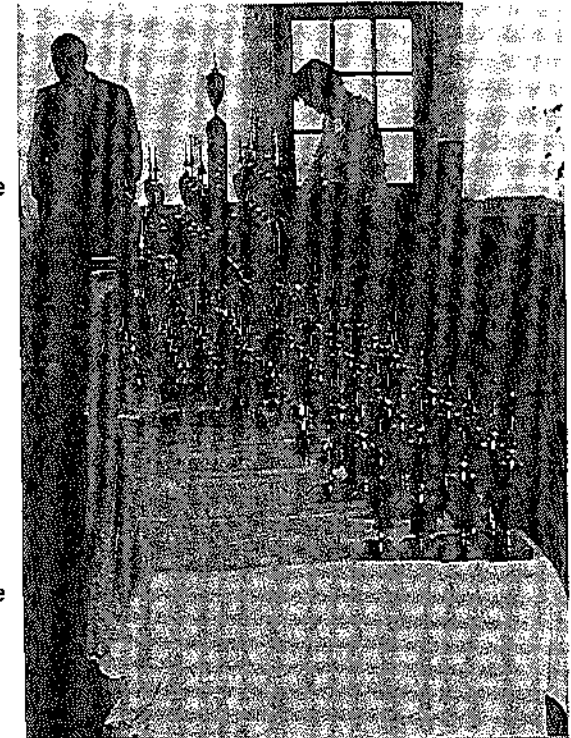
NARAM flying over, a few of us headed out for lunch. Pizza was the choice, but no Pizza Huts or the like could be found. We stopped at a place called "Mario's Flying Pizza". It didn't look very snazzy, but once inside we saw shuttle photos on a wall signed by many of the well-known astronauts. Perhaps the Johnson Space Center's pizza equivalent to Pancho's? The food & prices were even good.

Friday night was the awards banquet. Coverage of it is on page 14.

Overall, a very good NARAM. Some flaws always pop up, but as long as they don't become really serious most people understand. Wind is a lot easier to cope with than rain, and the huge size of the JSC field makes recovering models more likely than other popular sites like Allentown (No corn!). It's amazing that Scott and Nettie survived the week after all they'd been through, including the birth of their daughter about 2 weeks before. We salute them, John and Connie Pursley, and all others who helped run NARAM.

## Awards & Muppets

**Right:** Pat Miller (upper left) looks away from the concentrated glare off of the NARAM-27 trophies.



**Below:** Randall Redd's great (and late) scratchbuilt model of the spaceship from the Muppet Show's "PIGS IN SPACE"



# NARAM AWARDS

As each person came into the banquet room, they received a ticket for the drawing of door prizes later on. Matt handed out the July/Aug issue of SNOAR NEWS to subscribers as they arrived. The buffet-style food was fairly good.

The other activities began with an auction to benefit the U.S. Team and the National Convention. Among the items auctioned were the manuscript of Harry Stine's latest Handbook of Model Rocketry, a copy of the 1976 Handbook, the proof copy of the "Pink Book", which was blue, and an assortment of donated engines and kits.

There were a lot of items given away at the door prize drawings, which were held throughout the awards presentations. Claud Greenlee was responsible for arranging the donation of \$20,000 dollars worth of products and discount coupons, and at least half of the people in attendance won at least once (due to getting a new ticket some people won 3-4 times). Everyone got some sort of Hot Stuff product (glue or Accelerator). Randall Redd suddenly found himself getting into high power rocketry after winning a North Coast Rocketry kit. Some Estes and Ace kits were also given away. Mary Roberts of Estes won an Estes kit, but she reiterated her earlier wish of getting an I engine (you're gonna have to start attending LDRS, Mary). There were a couple big prizes at the end. One was a framed portrait of Ulysses S. Grant, in the form of a \$50 bill. This was won by Bonnie Russell. The grand prize was a paid trip to NARAM-28, and excitement built as the winning number was announced. A loud "Awwwww" sounded throughout the room as none other than Vern Estes turned out to have the winning ticket.

The awards ceremony went well, with scores of trophies from NARAM and the Convention presented. Estes also provided merchandise certificates. The Best Midwest Qualified Flight was presented again this year, constructed by the capable hands and twisted mind of Randall Redd. Honorable Mentions went to: Tom Beach's 2-stage eggloft Cato; Matt's Superroc pretzeling into Mark Johnson's blue car; Randall Redd's crimped superroc bouncing into another blue car; Ric Gaff's Super-Bend-Roc which landed on Bob Kapiow; and the mystery egg capsule from above which hit the tent. The winner was Scott Doctor due to DO'ing all of the NARAM events.

Keeping the Superroc and Scale altitude event results SECRET did have the desired effect. George & Matt knew the C div Championship could go either way if Matt scored well ahead of George in Superroc. In D Scale Altitude, Chas Russell took 4th place. It was nice to see the surprised looks on Randall Redd's and Gary Price's faces when it was announced that they had placed 3rd and 2nd respectively in Scale Altitude. Gary Price's altitude had been a very good 774 meters, but little more than 76% the altitude of Matt's incredible 1007 meter Patriot flight. As if the table wasn't getting crowded enough, Matt won the C division NARAM Championship for the most points scored at NARAM in C Division, with the Dixie Cats taking reserve.

The national awards began with Troy Statton taking reserve in A Division, and Brad Morris taking the A Division Championship. In B Division, Tim Marcy took reserve as Mark Schmidt took the Championship. In C division, Matt took reserve and George the Championship in a very close race, 4589 points to

4815. It was even closer than that considering the 128 points or so Matt missed from the mysteriously lost Section meet. Chas Russell had a season and a NARAM to remember for flying to a strong 3rd nationally. The team title easily went to the East Meets West Team of Ken Mizio, Kevin Kuczek, and Ross Hironaka. They're going to be just as strong in C Division as they were flying in B Division. Very interesting was that the Dixie Cats Team crept into NARAM like a cat and proceeded to score well in most events to easily win the Reserve team championship. The team consisted of Terry Lee and Lawrence Bercini, although Lawrence was unable to attend NARAM. In the section race, NIRA finally won with a total of over 22,000 points. Reserve went to NOVAAR with little over 11,000, although their only NARAM representation was the East Meets West Team. SNOAR came in with a strong fourth place showing, behind the third place Vikings section.

The Howard Galloway award went to the Blue Ribbon Commission, Trip Barber Chairman, for their work in investigating the effects of increasing the NAR's weight and power limits. The President's Award went to Dane Boles of Estes Industries for his role in the hobby over the last 15 years regarding hobby safety and easing of over-regulation of the hobby. The NARTREK Achievement Award for 1985 went to Jack Sarhage.

The final presentation was the LAC Newsletter Award. Since the rotating trophy is showing it's age and continued assembly and disassembly of it would add to the problem, NIRA came up with a wooden case for the fabled contents of the trophy. The Award was presented to SNOAR NEWS, and seemed to be a popular choice by the reaction of the room. It's nice to know that our efforts are appreciated so many people. It was also good that Randall Redd and Gary Price finally got to see the LAC Award and the contents. Their *WARP Launch Window* had won the LAC Award in Houston 2 years earlier, but it was never sent to them. It ends up residing in Salt Lake City for awhile after all.

## NARAM-27 AWARDS:

	<u>National Champion</u>		<u>Reserve Champion</u>	
A DIV:	Brad Morris	4639	Troy Statton	3782
B DIV:	Mark Schmitt	N/A	Tim Marcy	2314
C DIV:	George Gassaway	4815	Matt Steele	4589
TEAM:	East Meets West (Hironaka, Kuczek, Mizio)	4863	Dixie Cats (Bercini, Lee)	3747
SECTION:	NIRA	22,732	NOVAAR	~11,000

Howard Galloway Award: Blue Ribbon Commission. Trip Barber, Chairman

President's Award: Dane Boles

NARTREK Achievement Award: Jack Sarhage

LAC Newsletter Award (Rockwell Trophy): SNOAR NEWS





## NAR News From NARAM-27

The following is information presented by Pat Miller during the Association meeting and other NAR-related news heard during the week.

The NAR is in great shape financially and in membership size. The NAR has a projected Net Income of +\$13,324 for 1985, compared to nets ranging from -\$726 to +\$1343 in the previous 5 years. Why the huge increase? NAR membership has been growing strongly over the last year, up to about 2700 by July, the largest since 1972. Even better, the growth is not leveling off yet, membership may reach 3500 by mid-1986. A key factor in this is Estes' inclusion of NAR membership forms in kits ("kit stuffers"). The kit stuffers began to hit the market in July 1984, and at about that time NAR membership started growing. Additionally, Estes included the NAR's address in their 1985 catalogs. The kits with the kit stuffers may not completely saturate the market (hobby store shelves) until mid-1986, so continued growth can be expected. Estes Industries should be highly commended for doing this.

The improvement in the American Spacemodeling magazine under John Pursley's editorship should also play a part, both in getting new members who see the magazine (such as in hobby stores), as well as keeping present members. More improvements are being explored and should be very nice if some of them can be done. With the larger membership a lot of the NAR's expenses get spread out among a broader base, so the expense per member goes down or is at least not eaten by inflation. Given this, more funds should be available for such things as improving AmSpac. Over the last 10 years we've heard that the NAR had too few members to afford more money going to the magazine. If the membership keeps growing towards 3500 and there are no unexpected problems in other expense areas, watch out!

The other major news at the Association meeting concerned the change in definition of model rockets to the increased Newton-Second and Weight limits recommended by the NAR Blue Ribbon Commission: G-Class motors, 62.5 gram model propellant limit, and 1500 gram (3.3 pound) model weight limit (see March 1985 SNOAR NEWS). The limiting factor in the implementation is approval by the entire body of the NFPA. The NFPA's Committee on Pyrotechnics reviewed and accepted the proposal in May, but it takes a vote by the full body of the NFPA. There was insufficient time for the NAR's proposal to go through the required 60-day public review process and make the agenda for the NFPA's annual meeting in October. The review process should be complete by early 1986, assuming no snags develop, then the NAR's proposal will be voted on at the NFPA's October 1986 annual meeting. Should the NFPA pass the proposal, then the NAR's implementation should be lightning-fast. A lot of the NAR's leadership are looking forward to and making future plans for the hobby based on the likelihood that it will be passed. It'd be great to have the new definitions in effect now, but as many years as it's taken to get to this point, when it really seemed impossible, another 12 months or so isn't so long to wait.

Dan Meyer heads the new Blue Ribbon Commission. This commission is looking at the possibilities of how high power consumers might tie into the NAR as a model rocket consumer organization. The Commission will assist the high power consumers in the writing of a safety code and a definition of their sport. The goal of the Commission is to give a recommendation to the Board of Trustees on how NAR members can fly the high power sport without jeopardy of their memberships. Also, the Commission is to work on the goal of bringing the high power manufacturers and consumers into the NFPA-HIA-NAR system as responsible partners. It will probably turn out that the NAR Commission and the LDRS-HPR Commission will have at least one meeting within 12 months. The meeting will probably be either at the February 1986 Board meeting or during NARAM-28.

Pat Miller is awaiting news from Howard Kuhn after he returns from the Spacemodeling World Championships in Bulgaria on the proposed USA-USSR contests for 1986 & 1988. If the USSR representatives confirm their commitment, then plans for the US to host the 1986 contest will proceed. Time is short, not so much for Charlie Sykos to organize the contest as for the NAR to raise the estimated \$10,000 to cover costs. In other FAI news, the next U.S. hosted World Championships has been pushed back from 1989 to 1991. This is not the NAR's fault, Czechoslovakia and Yugoslavia jumped in to host the 1987 and 1989 W.C.'s, rather than one of them just hosting the 1987 W.C. and the U.S. hosting the 1989 W.C.

Onto other news, Jack Kane of Standards and Testing passed out engine certification data to interested persons at NARAM. This data gives detailed information on the results of certification tests, including actual total impulse, time-thrust curves, peak and average thrusts, weights, actual time delay, etc. It's surprising how far off some time delays were. He will make this data available to all members by placing an ad in AmSpac announcing the availability.

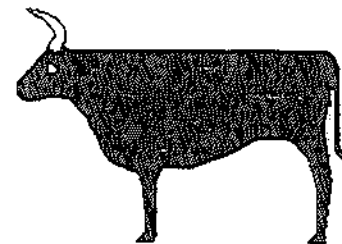
The new Pink Book has been printed and mailed immediately to all those who had joined the NAR or otherwise should have gotten one after the supply of old ones ran out last year. Other members will receive a copy of the new Pink Book when they renew. The new Pink book contains updates of recent published changes, but also a few brand new changes. To accommodate the Flight Points for placing in an event, points are now multiplied by double the old factors: (1st-10, 2nd-6, 3rd-4, 4th-2, Qual Flt-1). Unbelievably the Superroc rules have been changed AGAIN. Why they were changed, after things had really gone so smoothly must be the SECRET of the year. Makes it sort of hard to fly under the new rules though when they haven't been sent to everyone. The Pink Book really needs a major overhaul like in 1979, as the rules entail too much for new modelers to get into, and a lot of red tape that even veteran modelers are fed up with. What else can be said when it's illegal to enter a Big Bertha in PD and Spot Landing? (over the event weight limits)

The computer system for Headquarters will be obtained this Fall. It's an IBM PC (gee, it's not SNOAR compatible). Mark Bundick will bring it on-line and work up the software, with transport to HQ by early next year. It will be put to use immediately, and Doris Mayer should have it up to a high working level within a few months after that.

Finally, it seems that NARAM-28 will be held in Illinois, perhaps at Chanute AFB in Rantoul. If so, the C.D. will be Mark Bundick and NIRA will be the host section. If not, some California members have expressed interest in hosting NARAM-28 in Anaheim, presumably Mile Square Park (Burrow, burrow)

# Quotable Quotes From NARAM

- "I finally got revenge on SNOAR, I made Matt a Trustee" - A laughing yet still coherent anonymous NAR President late Monday night.
- "SNOAR News is my favorite newsletter" - Mary Roberts
- "Are we having fun yet?" - Heard at various times on the range amidst the heat, humidity, and briars.
- "What's a Dixie Cup, Terry? Isn't that a Southern training bra?" - Bonnie Russell
- "I don't want to talk about my ex-wives" - Terry Lee
- "Hey, don't complain about getting 5 out of 300 points for workmanship in scale, there was someone who only scored 3!" - Scale judges to an A Division modeler.
- "Yes, you can come over to my room to look at my kits" - Mary Roberts at Manufacturer's forum.
- "Doesn't **anybody** want to launch?" - RSO John Pursley to a bunch of people with models ready on the pads, waiting for the wind to drop from 15 mph to 10 mph.
- "You mean there's only one flight in Scale Altitude?" - Contest Board Chairman Terry Lee to one of SNOAR's "Pink Book Lawyers".
- "ACK!" - Bill the Cat phrase uttered at various appropriate times.
- "Here are the awards for A Parachute Duration, which suffered Tuesday from 'NASUS Interruptus' " - NARAM CD Scott Hunsicker during the awards ceremony.
- "It's a SECRET" - Response from others to any question the addressee did not respond to in 1.2 seconds. See also this entire issue.
- "Who's got the Hot Stuff?" - Bonnie Russell
- "Right here, Bonnie" - Matt Steele, pointing down.
- "a Tomahawk D Regional from Estes" - Claud Greenlee during the prize drawing.
- "I want to fly an I Engine" - Mary Roberts
- "I'm glad Matt Steele didn't hear that, or it might get printed in SNOAR NEWS" - Pat Miller to a group of people which included this issue's editor.
- "There's a bit of a problem with....." Oops, out of space. Lucked out Pat!



## BULLSHEET

New Competition for Estes?- There were strong rumors that 1986 may finally be the year that Model Rectifier Company, (MRC), comes out with a line of model rocket kits and engines. It isn't clear just what sort of impact this would have on the hobby overall, or for serious modelers. No doubt the people at Estes and Damon are looking to see what happens, as it obviously would cut into their share of the market. Some of you may be more familiar with MRC as the importer of Tamiya kits from Japan under the name MRC-Tamiya. It may well be that if MRC gets into the model rocket market, a significant amount of their products could be made overseas. Just watch out if they have Chinese or Taiwanese lettering on their engines, especially if they "Come with *REPORT*".

Chris Morgan had to withdraw from the U.S. Team, due to job commitments. This was a real shame, as Chris has always been an asset to the Team, both on and off the field. Mike Micci was assigned to take Chris' slot in E R/C R/G, and Dan Winings was assigned to fill the Scale Altitude position. Earlier, John Pursley had to withdraw from the Team for similar reasons. John's Scale position was not filled. Finally on a good note, Terry Lee was appointed to be Team Manager Jerry Gregorek's assistant.

A New Mac on the Staff?- We understand that Bob Geier now has a Macintosh system, going one better with a 512k machine. He also expects to be getting a modem. If Bob doesn't mind, maybe he could provide a link into John Pursley's computer for transferring articles into American Spacemodeling.

The Jupiter-C and Mercury-Redstone are being researched by Randy Keeling and George Gassaway. The information will be used to put together a couple of top-quality data packets on the two vehicles, with a packet on the Redstone Missile another possibility. The data collected will be made widely available, hopefully published in a future American Spacemodeling, with contributors noted in the packets. So far, some decent material has been obtained for some dimensions, but there's still a long way to go. Some of the information from old books conflicts, such as the fuel tank length (two different dimensions are given just a few pages apart in the same book!). If you have any useful information on the Redstone Missile, Jupiter-C (Explorer-1 launch), Mercury-Redstone, or Mercury Capsule & Escape System, please contact George at P.O. Box 59102, Homewood, Alabama, 35259.