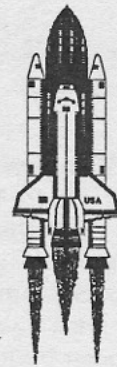


Newsletter of the Huntsville Area Rocketry Association

MAX-Q



Vol. 1 No. 2 April 1987
Serving the Spacemodeling Community of Northern Alabama



HARA ON ASCENT

People in Northern Alabama are getting into HARA like they've never seen rockets before, which is highly unlikely in Huntsville. The growth and accelerating activity for NAR Section #403 is phenomenal!

HARA monthly meetings are well attended. At both the February and March assemblies, we counted over two dozen with several new faces each time and we expect the interest to continue.

Membership is soaring, with 15 enrolling in HARA since February. Most are also joining the NAR.

The March Sports Launch was fantastic with nearly 60 participants and spectators showing up. Our first contest in April promises to be just as exciting.

Community involvement is expanding also. HARA now has connections with the Civil Air Patrol, Cub Scouts, and AFJROTC, as well as Alabama Space and Rocket Center and radio amateurs (hams).

Rumor has it that HARA may host NARAM-30. This would be as big as getting a space station contract.

The above items are discussed individually elsewhere in this issue of MAX-Q, which keeps getting bigger and better. HARA is definitely *On Ascent* and, "We be jammin'!!!!" Now is the time to be in model rocketry, because, as the city slogan says, "The sky is not the limit!"

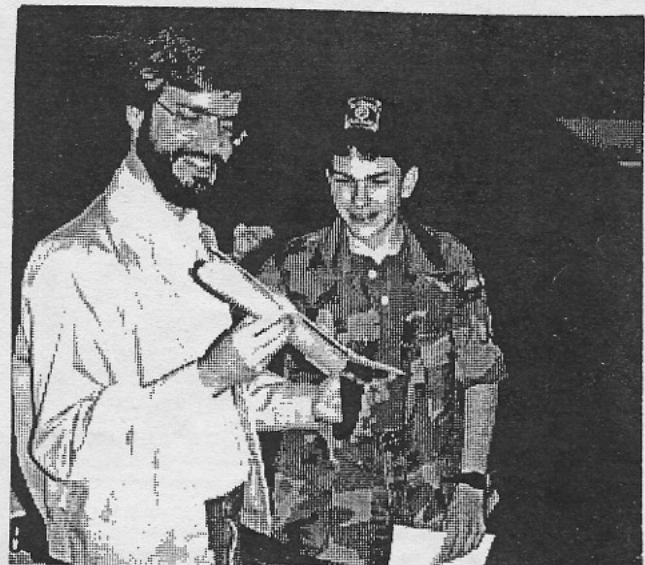
Pres. Vince Huegele



Matt Steele explains the finer points of flying a contest at the March meeting.

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HARA Pres. Vince Huegele (left) examines Marty Williams' Swing Wing Crusader model at the March 19th meeting. Williams is active in model rocketry and Air Force Junior ROTC at Butler, where he leads the Aerospace Team (See inside story) The Crusader thrilled on-lookers at the Sport Launch with two successful flight. (photos by Wayne McCain)

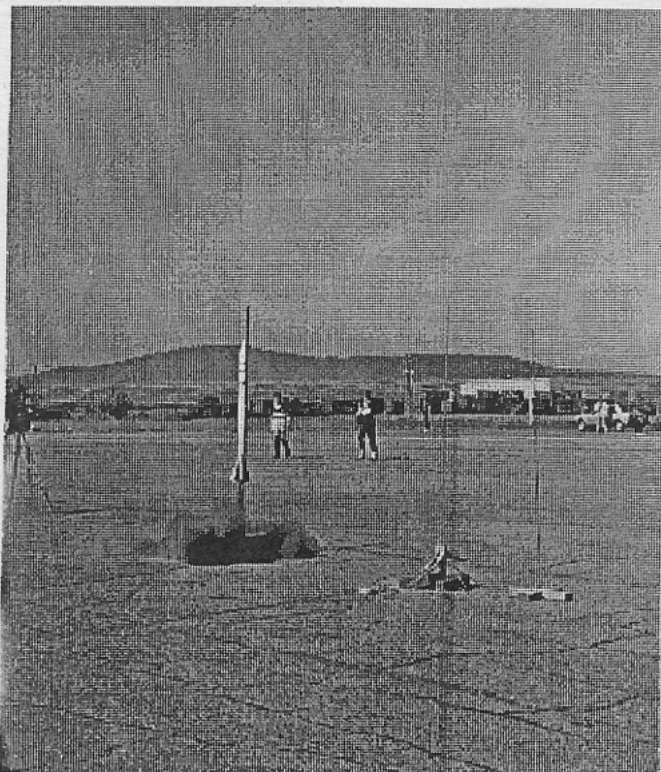
MAX-Q is the official newsletter of HARA, NAR Section #403. Articles, photographs, suggestions, comments, etc. are actively solicited from all members for the MAX-Q. Max-Q is edited by Vince Huegele and Robyn Steele and published on a Macintosh SE, Abaton Scanner and Laserwriter+ by Graphic Solutions, 555 Sparkman Dr. Suite 1616, Huntsville, AL. 35816, (205) 830-6645.

MARCH LAUNCH SPORTS SIXTY

HARA's first official sport launch of 1987 was 'just perfect'. At least 60 people showed up on the first day of spring to fly or watch the flying at the old airport. The skies were filled with rockets for four hours as modelers showed off their best.

The success could be due to several factors. This was the first chance most rocketeers had to test the models they had been building all winter. Some were getting ready for the upcoming contests. The growth and momentum of HARA as a club fueled flight enthusiasm. And the weather was great.

A dozen launchers were set up in the peak of the flying. Despite the three club launchers available, most flyers used their own. "It looks like as tripod contest," said Robyn Steele, referring to the launch line.



Matt test flew several Vulcan "Smokey Sam" composite engines at the launch which by crowd reaction, are destined to be instant top sellers. Here, an NCR E powered model bellows out a black veil of rich tracking smoke from the instant of ignition through ejection. These flights were great! The engines offer a new "moon burning" composite design with good performance but reasonable cost. Two gross please!! (photo by Wayne McCain)

High powered rocketry highlighted the day. Matt Steele flew 4 new North Coast Rocketry kits and introduced what is called 'Smokey Sam' motors, now being developed by Vulcan. These big engines leave a black trail behind the rocket, like a burning oil can. Tracking those high altitude models was easy. Matt even retrieved the Thunderbolt model that landed on a nearby

roof.

The most active large scale flyer that Saturday was Wayne Hendricks. His three NCR Aerobee High Test flights were very nice. A four engine D cluster NCR Spoil Sport model also ignited perfectly three times with much fire and smoke. And speaking of fire and smoke, Wayne gets the "CATO Award" for his NCR Phantom 1800 that ruptured a single D engine. It was unfortunate, but dramatic.

The third high power participant was Ron Williams, who was serious enough to come all the way from Chattanooga. He and his friend get the "Furthest Traveled Award". Ron had several good flights that stretched the necks of those watching.

George Gassaway from Birmingham also attended. Famous for gliders, George had several models to test out. He warmed up with two flexies, then let loose an exciting canard design, which promptly thermaled away. "Last time I saw it, it was still going up," he said. George has a bad habit of launching gliders into updrafts so that they stay up forever. For better control, he has a radio model which he launched twice. The first launch was good, but landed hard on the asphalt. The second launch became erratic and made an emergency landing. Apparently, a small crack in the stabilizer, received at the first landing developed into



Birmingham's George Gassaway preps all-up Shuttle model for flight as HARA VP Steele assists. George achieved a spectacular demo flight which was covered by TV channel 19 on the 5:30 PM Saturday News. Hara's sport Launch culminated a week of successful space launches including a Delta rocket from KSC (GOES-H) and a Peacekeeper from Vandenberg AFB, CA. George was heard to say, "Maybe it's time to put the radio back in the orbit-er." We're all waiting George!!! We want a shuttle kit like this!!! (photo by Wayne McCain)



John McCain readies his "ole faithful" Maxi Streak for launch. John took first place in parachute duration at last October's AIAA/HARA-5 contest with this one. John states that, "The Maxi has just about had it, but has seen over a dozen launches since 1982!" The "weathering" of D power exhaust fumes is evident on the model's trailing edges. (photo by Wayne McCain)

a structural failure during MAX-Q. The flights were made as practice for George's participation in the RC/BG event at the International Competition in Yugoslavia this September.

Another spectacular Gassaway launch was an F powered scale Space Shuttle. Still under development, this model took its first test flight in its new redesign. George and Matt were uneasy. "The previous test design went unstable," George explained. "But that was trying to radio control the orbiter to separate and glide back. The RC instruments were removed from this model." As the countdown proceeded, all eyes were on the shuttle. At ignition, the composite motor slowly accelerated the model straight up to apogee. Nothing separated on this model, but the SRB's deployed twin parachutes to return the entire unit. "We're very satisfied," Matt said. "George spent a lot of time balancing this rocket. It worked great." It was apparent from the cheers of the watching crowd, that they agreed with Matt's assessment of the Shuttle flight. Matt and George will be flying in this year's club competition once again as the 'Zunofark' team.

Matt also made some flights relative to the Internats. B engines, the size of mini motors were fired for preparation in B altitude. That model really shot off the pad!

Vince Huegele showed his age in bringing out some old Estes rockets. A scale Bomarc caught a lot of glances as it turned in a flight. Later a vintage 1968 Starblazer took to the air. "I would have showed it around more," said Vince, "if I'd remembered that rocket was

older than half the people out there."

The most seen model was the Phoenix. At least five different versions were launched during the day. Should we conclude this is a popular rocket?

Marty Williams showed off his Crusader Swing Wing. He got in two good flights before a rough landing on the runway.

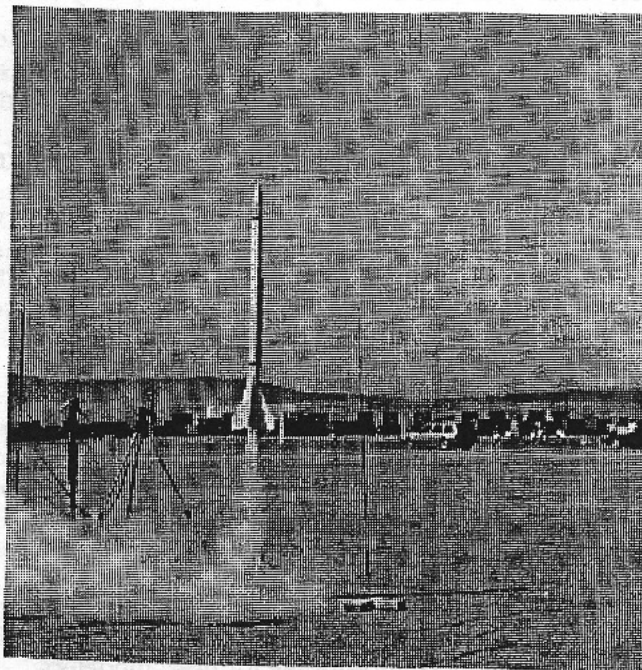
The McCain crew of Wayne, Dana, John, Scott and Matthew kept busy. When they weren't busy launching their Maxi-Streak, they were logging flights on models carrying GI Joe. Joe made it back OK every time. Sadly, there was a casualty. "We lost one of our best models right after George lost his," Wayne said. "A thermal got them both."

Other models seeing action were the Stealth, Mean Machine, Mighty Moe, Nike and a V-2 by Chuck Hall that was as old as Vince's Bomarc.

By mid afternoon, most rockets and rocketeers had burned out. Fatigue, hunger, sunburn and depleted engines signaled it was time to tear down the launchers and strike the set. It had been a great day with many impressive flights, light winds and few models lost or damaged.

"I'm just tickled," said Matt, referring to the success of the day. "I've never seen this many people show up for a sport launch. Usually the crowds are at the contests. What's going to happen in April when the flying gets serious?"

As HARA's contest director, Matt will have a substantial job on his hands. But with the support Huntsville is giving model rocketry, the biggest successes are yet to come.



"All Engines Running..." as Wayne Hendricks' four D powered North Coast Rocketry model leaps skyward. Wayne participated with several launches from one of our several active launch pads at the Sport Launch. Everyone "oohed and ahhed" as this super model rose on a cloud-like pillow of white. Keep up the good work, Wayne! (photo by Wayne McCain)

MRC Starfire Review

by Vince Huegele

Not since Centuri has Estes had any competition in comparable model rocket kits. Now, the Model Rectifier Corporation (MRC) has entered the marketplace with a new look and a new line of rockets. Maybe they sell rectifiers too, or model rectifiers or are trying to rectify the industry, but this article is about their Starfire rocket kit.

The Starfire is rated as a beginner skill level and is a simple, single stage streamer model. You can't get much simpler than a nose cone, tube, three fins and a streamer. Since I had recently built a couple of Estes skill level 1 models, I had received free as bonus kits, I was ready to compare MRC to them.

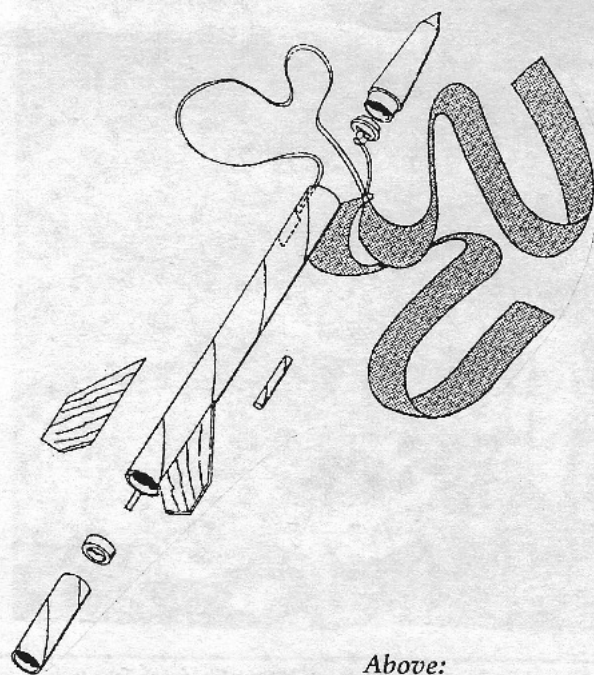
The first thing I noticed about the kit is the strange shaped nose cone. The base tapers up parabolically, but suddenly shifts to a true cone at the tip. The plastic nose fits the body tube fine, but I would have picked a different nose pattern. Perhaps this unique design is MRC's way of looking different than Estes.

All the necessary parts are in the kit. The fins are pre-cut balsa and the streamer is the typical plastic. The dummy engine tube for installing the engine block is not an empty casing, but is like the body tube and good enough to use in another rocket as a coupler or extension tube. The rest of the parts all look pretty familiar.

This is not a pre-assembled model, but the simplicity of the design allows you to put it together in less than an hour, even if you don't try. In fact, you could build the model in reverse order of the instructions and still come out the same. Everything a total beginner would need to know is spelled out in the assembly instructions with illustrations for each step. The launch procedure has no illustrations, but does have the traditional ten step countdown checklist, which should be idiot proof. (They explicitly say, "Be sure rocket is pointed up!")

MRC did include some nice self adhesive decals. These things just peel off and stick on without the water soaking business.

Overall, the Starfire rates as acceptable in all categories. The good news is this MRC kit is just as good as Estes. The bad news is - it is not any better. When these kits show up in the stores side by side with Estes Zinger and Courier beginner kits, I have to recommend them all as appropriate for new modelers. What you buy is up to your own preference for design and looks, and of course, price. And if the Starfire is cheaper, why not try it?



Above:
Exploded view of the MRC Starfire

Consumers Column...

Huntsville's two primary model/hobby shops; Wilson's and RC's, seem to have increased their rocket inventories. Both have whole walls covered with a good variety of Estes kits, spanning all skill levels. Wilson's is still the only place in town that we know of that has sheet balsa for custom design fins and wings. RC has made mention of a 20% discount to club members. (We're getting some HARA membership cards made up. Check for yours at the next meeting.) It might be worth the drive to North Meridian Street to check this out.

And if you're looking for florescent spray paint to track those high altitude models, we found five colors of DAY-GLO at the Lily Flagg Ace Hardware on South Whitesburg Drive. You can get a big can for under \$4.00, which is enough to cover all your models, your mistakes and yourself.

If you come across anything that might be of interest to the club for this column, please let us know so we can put it in the MAX-Q and get the word out to all the other rocketeers.

Countdown

1987 Hara Calendar

MARCH:	19 March; Meeting 7:30 P.M.** 21 March; Sport Launch Predicted Duration- unofficial event
APRIL:	16 April; Meeting 7:30 P.M.** 18 April; <i>Spring Fling '87</i> NAR Competition*
MAY:	21 May; Meeting 7:30 P.M.** 23 May; Sport Launch Open Spot Landing -unofficial event
JUNE:	13 June; <i>June Jam '87</i> NAR Competition* 18 June; Meeting 7:30 P.M.**
JULY:	11 July; <i>Rocket City Roundup</i> NAR Competition* 16 July; Meeting 7:30 P.M.**
AUGUST:	2-7 August: <i>NARAM 29</i> Anaheim, California 20 August; Meeting 7:30 P.M.** 22 August; Sport Launch
SEPTEMBER:	7-14 Sept.; <i>7th World Spacemodeling Championships</i> Belgrade, Yugoslavia 17 Sept.; Meeting 7:30 P.M.** 19 Sept.; Sport Launch
OCTOBER:	3 October; <i>HARA-AIAA Rocket City Classic #6</i> 15 October; Meeting 7:30 P.M.** 17 October; Sport Launch
NOVEMBER:	19 Nov.; Meeting 7:30 P.M.**

*List of events being flown at April NAR Competition are listed on page 10

**All Meetings will be at the Alabama Space and Rocket Center Auditorium

***Launch Dates subject to change, however advance notice will be given.
Launch site- Old Airport

Transportation Problems?

If you are having problems attending the meetings or the launches because of lack of transportation, (especially the A and B Divisioners) please contact one of the club officers at least 24 hours in advance and we will try to arrange transportation for you.

Vince Huegele- 881-2904

Matt Steele-883-6020

Wayne McCain-536-2241

HARA MEMBERS

•Anglin, John	534-7971
4449 Millvale Dr., 35805	
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Alabama Space and Rocket Center, 35807	
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•Hendricks, Wayne	881-4634
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•Huegele, Vince, (HARA Pres.)	881-2904
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•Hitt, Bill and David	536-4135
1115 Hermitage Ave, 35801	
•Hoffman, Luke	837-6467
6509 D Whispering Pines, 35805	
•Johnson, Chris	n/a
RT 1 Box 519, Lacey Springs, 35754	
•Johnson, Lester and Gloria	837-3640
PO Box 5491, 35814	
•McCain, Wayne (HARA Treas.), Dana,	536-2241
John, Scott and Matthew	
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•Moser, David	(615) 376-3653
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•Nolin, Damon and Derek	880-8197
10001 Willow Park Dr., 35803	
•Olyniec, Lee	259-0173
1109 Hood Ave, Scottsboro, AL. 35768	
•Papa, Byron	837-1206
6508 Whispering Pines Trail, 35805	
•Rabb, David	536-9195
2123 Gladstone Dr., 35811	
•Reasoner, David and Colin	883-7629
3103 Holly Hill, 35802	
•Sias, Mathias	852-8771
871 Moontown Rd, Brownsboro, 35741	
•Shulz, Eric	n/a
1013 Riviera Ave., 35802	
•Steele, Matt and Robyn (HARA VP)	883-6020
13011 Branscomb Rd., 35803	
•Street, Troy (HARA Sec.) and Jonathan	883-8318
10127 Dunbarton Dr., 35803	
•Stubblefield, Katie	534-5359
1714 Sandlin Ave., 35801	
•Tygielski, Mark	837-7486
406 Green Acres, 35804	
•Williams, Marty and Jimmy	539-4801
3203 Fairacres Rd., 35803	
•Williams, Ron	n/a
5637 Crestview Drive, Hixon TN 37343	
•Wingate, Jason	539-6707
2908 Azalea Circle, 35805	

Please check this list for correct spelling of your name, correct address & phone number etc. If you are a HARA member and your name is not on this list, please contact Robyn Steele 883-6020 or 830-6645(W)

Wadding Scraps

CUB SCOUT ROCKET DAY SATURDAY APRIL 25th

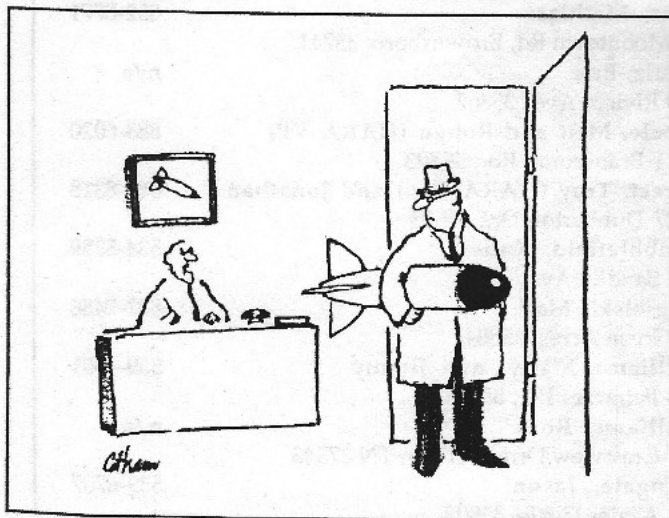
One week after our Spring Fling contest, Huntsville Area Scouts are having their own special contest.

Jim Fleming and Dennis Lambert have asked HARA to help them put together an event for first time flyers. Also, HARA will stage a demo at 1:00 that day prior to the contest, to show off other aspects of model rocketry. If you'd like to be in on another day of flying and helping beginners get started, come on out. The launch field will be south of the river and top of the mountain on Morgan County Rd 269. Follow the signs.

TELEMETRY GROUP INTEREST...

Several HARA members have expressed interest in discussing telemetry packages and other scientific payloads for models. Some NAR information is available on the subject and we have a blessing of professional expertise in the Huntsville area. Please indicate your interest in this area to Vince Huegele or Wayne McCain so that a club program can be assembled if warranted.

Next HARA meeting- April 16th 7:30



"Hold it, Steele! You know you're not supposed to take company material home with you!"

A SPECIAL THANKS TO THE ALABAMA SPACE AND ROCKET CENTER, MS. PAT SAUCIER AND DAVE DOOLING FOR SUPPORTING HARA WITH OUR MONTHLY MEETING PLACE AMONG THE FANTASTIC ASARC SURROUNDINGS. WE ARE THE ENVY OF ROCKET CLUBS THROUGHOUT THE COUNTRY!!!

HARA VIDEO

At the March launch, a local TV cameraman shot lots of video of our activities. Several members were interviewed on camera. When the news came on that night, a full report was expected in the features section of the program. Instead, of lengthy coverage however, HARA got only 40 seconds, most of which was the shuttle flight. That would be ok and certainly the publicity was welcome, but the irony was what followed. Right after the HARA story, this particular station ran two minutes on a story about a dog in California! What was the big news? The dog likes to get on the roof of its owners house! Two minutes of a dog barking on a roof was more important than local footage of Huntsvillian's launching rockets. We think people would rather watched rockets majestically ascending into an airbrushed sky than listen to some weiner dog squeeking. Of course, while we were having fun outside on the first day of spring, the poor TV guys were having to work inside and probably didn't have time to edit up a good rocket story, so they just ran the syndicated dog tale. But they could have put us on again at 10:00 PM. Oh well....

PLASTIC MODELERS

According to a notice in Wilson's Hobby Shop, the Plastic Modelers Society is having a convention, contest or otherwise exhibition, May 16, 1987. The event will be held at the Marine Corps Reserve Center on South Parkway next to Mr. Steak. Although primarily involved with model tanks, cars, airplanes and dioramas, they do have a misc. category to include space vehicles. Contact Dan Thompson, 2005 Rosewood, 35810, 852-3781 for further information.

and more wadding scraps....

S.R. Butler High Aerospace Team

by Marty Williams

The S.R. Butler High Aerospace Team is a group of students that are interested in our aerospace environment. To become a member, one must be enrolled in Butler High's Air Force Junior Reserve Officer Training Corps (AFJROTC) and maintain a grade point average of 70 or higher. The team has 12 members, ranging from freshmen to juniors and is commanded by Cadet Captain Marty Williams, a sophomore. The objectives of the Aerospace Team are as follows:

- 1- Acquaint AFJROTC cadets with the importance of rocketry and its role in the future.
- 2- Provide activities and opportunities for the development of aerospace leadership skills.
- 3- Provide cadets with a working knowledge of model rockets, solid propellant motors and launching systems.

The Aerospace Team is interested in any new rocket designs, sport launches, competition launches and any other information pertaining to rocketry and Huntsville's great aerospace environment. If you have any questions or suggestions, please contact Marty Williams at (205) 539-4801.

Ed note: HARA is fortunate to have Marty and other cadets in its membership.

HARA to Brief AFJROTC in Montgomery

July 30, 1987 will find Wayne McCain, HARA Senior Advisor and Treasurer at Maxwell AFB, AL to brief the Air Force's Junior ROTC. The event, a yearly gathering of ROTC instructors and school principals, will feature the lecture on model rocketry and a launch demonstration as part of a three day summer workshop. Air Force Major Henry Morman (AFROTC/OTJO) is coordinator, and recently stated that upward of 150 participants are expected.

The HARA briefing will include an introduction to model rocketry basics, including propulsion fundamentals and flight dynamics. Educational materials will be provided by Estes Industries, who forwarded the AFROTC request to HARA. Robert Cannon, Manager of Educational Services at Estes and editor of Model Rocket News and Educator News expressed a word of thanks to HARA for volunteering to assist. "Estes is glad to support the educational aspects of model rocketry by encouraging this type of activity," Cannon said. "A big thanks to HARA for your help!"

Reportedly, Butler's Col. Hackworth and Principal, Mr. Thomas Drake will be among the JROTC instructors participating. (See "Butler High's Aerospace Team" story this page)

Launch and recovery of about a dozen models are planned, including at least one large scale model. Either Vince Huegele, HARA President, and/or Matt Steele, VP likely will accompany Wayne to Maxwell. Up and away...into the wild blue yonder.

HARA to host NARAM-30?

Pat Miller, President of NAR and other NAR trustees have expressed a strong interest in holding NARAM-30 in Huntsville. At the February Board of Trustees meeting in Washington D.C., Matt Steele, a NAR trustee, promoted North Alabama as the location for the 1988 National Rocketry Meet.

"I'm convinced we have the manpower and interest to do it," Matt said. "Besides the competition, we have NASA, MICOM, and the Alabama Space and Rocket Center to attract participants, and the local aerospace industry for support. The southeast is due for a NARAM, as the sections in Georgia, Tennessee, Kentucky, Virginia and the Carolinas will confirm."

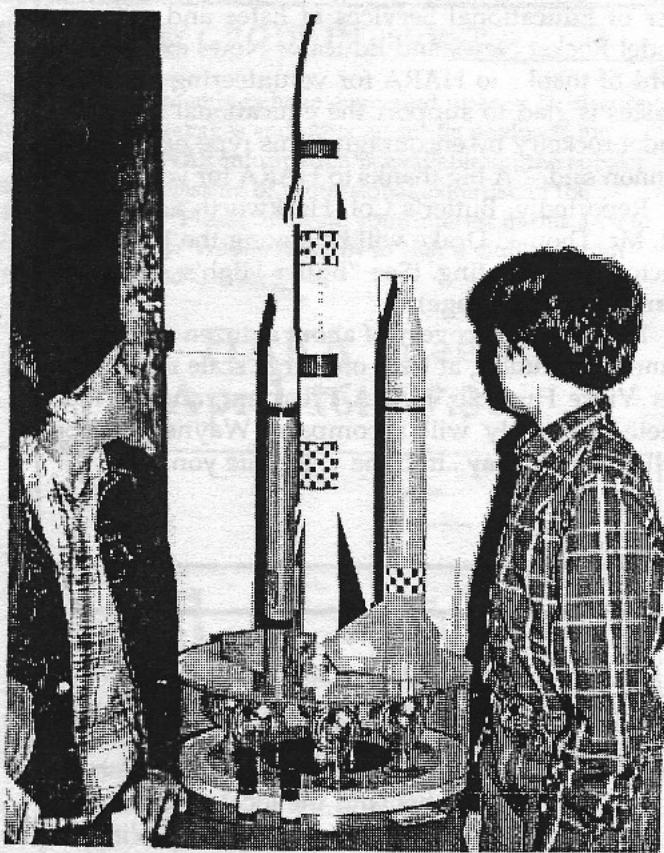
The official announcement of the NARAM-30 site is not to be made until NARAM-29 in California, but HARA officers are making plans for NARAM-30 now. "It will be a lot of work," said Vince Huegele. "But with the experience of our officers and the enthusiasm of our members and the momentum that HARA is building, we can't help but be winners."

"Economical" Shuttle Boost Glider

by Wayne and John McCain

John McCain, HARA A Division and NAR member, has developed a very inexpensive STS boost glide configuration employing the "free" U.S. Space Shuttle Glider Kit offered by NASA/MSFC. The glider, a heavy card-stock 3-D paper rendition of the orbiter, was built and attached to several C-powered models using a paper clip inserted adjacent to the rocket nose cone. The paper orbiter is freed at the instant of parachute charge ejection. Several relatively "spectacular" flights have been achieved. John will provide more details and a picture for the next issue of MAX-Q and intends to submit his design to Model Rocket News and American Spacemodeling.

The glider kit may be obtained free by visiting NASA's Marshall Space Flight Center Public Affairs Office (PA-01) at building 4200. Contact John for details of construction and flight operations at 536-2241.



HARA members admire several new North Coast Rocketry completed kits which were displayed at the March meeting. Among other items on review were new MRC kits and engines (very interesting! See review of the MRC Starfire this issue). Several new members were signed up, including Lester and Gloria Johnson (TV-54, WZDX) of Madison. Lester flew several models at the Saturday Sport Launch. (Photo by Wayne McCain)

"Man of" Steele to Address Local C.A.P. Squadron

by Wayne McCain

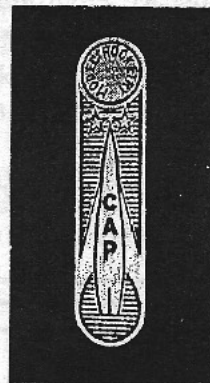
Huntsville's Composite Squadron 01055 of the U.S. Air Force Auxiliary, Civil Air Patrol, will hear HARA VP, Matt "the Man of" Steele (as he is known throughout the NAR) discuss Model Rocketry on Tuesday evening, April 21, 1987, at Westlawn School. Matt's talk will serve to kick off the local squadron's own model rocketry program for cadet (youth) members.

The Civil Air Patrol has among its objectives:

- Search and Rescue (aircraft)
- Disaster Relief
- Aerospace Education

The latter mission includes an extracurricular model rocket program based on NAR rules and regulations. The cadet activities in model rocketry are designed to supplement and enrich the aerospace education activities presented in their "Phase II" training. The program acquaints cadets with the importance of rocketry and its role in the future, and includes construction and launch of models along with theory.

A major portion of the CAP model rocketry program manual (CAPM 50-20) consists of the NAR "United States Model Rocketry Sporting Code." As with our NAR activities, the CAP program stresses safety first!



Upon successful completion of the CAP rocketry program, cadets are eligible for a beautiful model rocketry badge, which is worn on the official CAP uniform.

For additional information about the CAP Model Rocketry Program, contact Lt. Wayne McCain at 536-2241. By the way, all HARA members are invited to attend the CAP briefing on Tuesday evening. The Westlawn School is located just north of Bob Wallace on Jordan Lane. The meeting begins at 6:30 PM. Many different models will be displayed at the meeting.

Rocketry Addiction:

A High Tech Abuse

by Vince Huegele



"I was just a kid when I got started on rockets. It was innocent, simple, harmless at the time. I never thought it would lead to this."

These are the words of a rocket addict. He's not a monster or a freak, but a regular person who got too involved in model rocketry. A hobby that gives simple pleasure and intellectual diversion to many becomes a source of abuse to a few. This person took rocketry farther than it was ever intended to go. From this abuse came a dependency. Now he's got a problem.

"I don't want to spend all my time, my whole life with rockets. But I do. I love the roar of the engine; the smell of the exhaust. It's a high. A high I have to have."

He's hopelessly hooked. The path down the road to ruin is always the same story.

"I'll never forget my first launch. Astron Alpha with a 1/2A62 engine. Sweet little thing. Just a beautiful experience. But as soon as I got it back, I had to shoot it again. This time-what would an A engine do? Another model and B engines came quickly. And before I knew it, C6-5's were my mainstay. After awhile, it wasn't enough."

The addict never plans to get in very deep. But the lure of bigger kicks, higher highs, and faster rushes soon takes over and he has to shoot more.

"The move to D engines was scary but it was worth it, I thought. This was good stuff and I knew it. Sure beat those little T size jobs. I was doing those for breakfast, man. Then I'd go out that afternoon and cluster a few D's."

'Cluster' is user talk for lighting several engines at once. He was no longer an occasional flyer like most rocketeers who fly socially.

"Yeah, I was up to several packs a day. Seemed like nothing. I could handle it. My life was under control. Then one day, this guy introduced me to composites."

Composite motors are restricted to professional use for in-

dustrial strength applications. With the right connections, they can fall into the hands of amateurs. And the people who use them are never the same.

"They told me it was the ultimate high and man it was. Nothing like it in the world. It was clean, quick, good and just out of sight. But it was expensive. I had to have those F and G motors, not too often I thought, but I had to have them. So I began to deal."

To support his own habit, he was now compelled to entice others into his desire. By selling, he could keep a steady supply of whatever he wanted flowing through his hands.

"Finally, I had everything. All the time. Everything was rockets and rockets was everything. I had the highest powered stuff there was; H, J, K, L and other letters of the alphabet. I thought I had it all, but actually, it had me. It didn't hit me til I OD'd."

The details of an overdose are not pretty. Sometimes it's clustering an obscene number of H engines. Sometimes it's confusing models with military ordnance. Sometimes it's accumulating more kits than ever possible to build. Regardless of the trigger, the person's life comes crashing down. They call it 'pranging'.

"I never knew I had it so bad. It didn't seem bad. It was so--educational. That's what they said. But there was a lot they didn't say. I had to find out the hard way. I want other people to be warned, be careful. You play with fire, you get burned."

Fortunately, this addict is responding well to treatment and is finding a place in society. There are others out there, lost and hurting who don't know where to turn. Still others aren't even aware of the trouble they're in. The following warning signs indicate a person may be a rocket addict:

- Does he give a countdown before simple acts like flushing the toilet?
- Does he declare, "we have ignition," when starting the car?
- Does he throw away paper towels just to get the tube?
- Does he insist his rockets "aren't models but real rockets"?
- Does he have a room that looks like an armory for a third world nation?
- Do his clothes smell like sulfur?

If you know anyone with these symptoms, they need help. Call the nearest crisis help line and turn the guy in. While you're at it, report for a checkup yourself. Besides being addictive, rocketry is highly contagious and many an unsuspecting soul has been caught up in another's wake. Our friend knows all too well.

"Tell them to go easy. You can do rockets in moderation and it's all right. Moderation, yeah, that's the ticket. Or just say no."

Vince, our tongue-in-check HARA President spends his spare time at NASA, when he is not gainfully employed building model rockets or writing articles for NAR newsletters.

APRIL SPRING FLING '87

Sponsored by HARA, NAR Section #403

APRIL 18, 1987

9:30 AM - 4:00 PM

NAR Sanctioned Open Meet

Here's What To Bring!

Predicted Duration: A good, reliable B powered streamer recovery model is in order for this event. One must at least take it out for a test flight prior to the meet to get a ball park idea of how long the bird will stay up. Thirty to forty seconds is a good prediction, especially with a kit like the Estes Maverick, Yankee, Courier, Wizard, or Zinger. One flight allowed, one piece models only are allowed, you must make your prediction prior to the flight, and it must be your first flight of the day.

B Streamer Duration: You could use an Estes Yankee, Phaser, Wizard, or Zinger, powered by a B6-6 or B4-6 for this event. The highest sum of two flights wins, so bring at least two motors. One piece models only.

1/2A Parachute Duration: A mini engine model powered by a 1/2A3-2T or 1/2A3-4T is a good choice here. Good kits include the Eclipse, or a Sparrow, Star Dart, or Vector with a 8" or 10" parachute. The highest sum of two flights wins this event also. One piece models only.

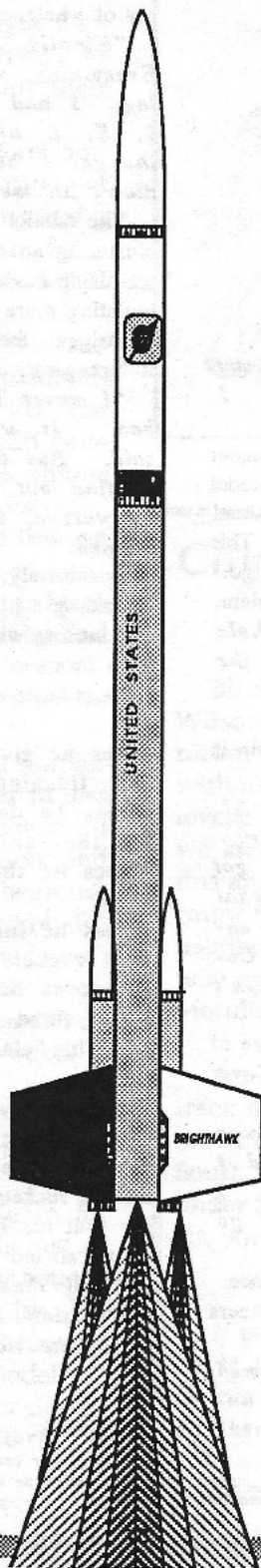
1/2A Boost Glide Duration: The mini engine Dragonfly is the only way to go here. Use a 1/2A3-2T for both flights in this event, as the highest sum of two flights wins this event too!

International D Boost Glide: This one is really for experienced modelers, as there are no good kits available. A good way to rig up an entry would be to mount a Hitchhiker on the side of a D12-5 powered Mean Machine. Three flights in this event, with a maximum recorded time of 270 seconds per flight.

Parachute Spot Landing: A 1/2A6-2 Sky Hook or similar model is a good bet here. Model must have a parachute fully deployed and "catching air" before landing. The winner of all the spot landing events is the one who lands closest to the designated spot (which will be decided just prior to the start of the event). One flight only, one piece models only.

Streamer Spot Landing: Use a 1/2A6-2 in your B Streamer bird here. The streamer must be deployed before landing. One flight only, one piece models only.

Open Spot Landing: You can use the same bird for parachute or streamer spot landing, or something like the Estes Flying Saucer, as any recovery system is allowed. Again, one flight, and one piece models only.



Schedule/Events

Predicted Duration (9:30-10:30)

B Streamer Duration (10:00-3:30)

1/2A Parachute Duration (10:00-3:30)

1/2A Boost Glide (10:00-3:30)

Internat'l D Boost Glide (no Flexies)
(10:00-3:30)

Open Spot Landing (3:30-4:00)

Streamer Spot Landing (3:30-4:00)

Parachute Spot Landing (3:30-4:00)

Awards: 4:00

Entry Fees:

A/B Division (17 years or less) \$3.00

C Division (18 or older) \$5.00

Prizes will be awarded!

All Contest Fees must be paid, and all Contest Forms must be filled out prior to flying.

All competitors must be NAR members with insurance.

For further information, contact:

Contest Director: Matt Steele

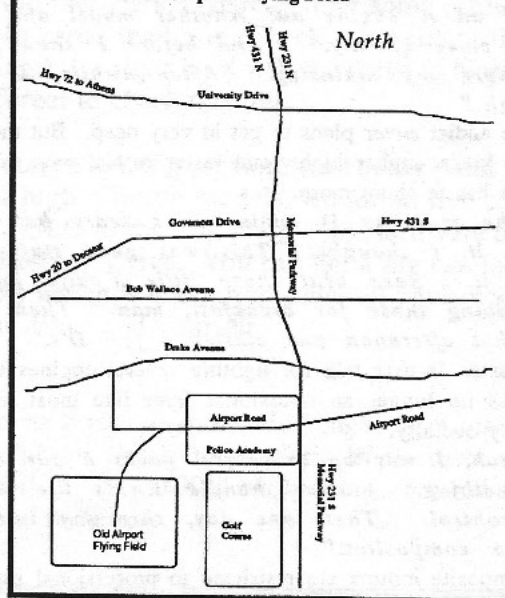
13011 Branscomb Road

Huntsville, Alabama 35803

Daytime Phone: (205) 882-8430

Evenings & Weekends: (205) 883-6020

Map To Flying Field





National Association of Rocketry

OFFICIAL CONTEST ENTRY BLANK

Official use only

Entry number

Flight sheets
issued by

Please enter me in the following events:		Official use only		CONTESTANT DATA	
Event	Event No.	Flight Sheet No.			
			Full name of contestant -		
			Street address --		
			City --		
			State --		Zip code --
			Phone No.		
			NAR number --		
			Age division (circle one) A B C		
			Official name of contest --		
			Section name --		
			Section number --		
			NAR team no. --		
			Date of birth --		
			REMARKS:		

(OVER)

FORM NO. CB-1-70

(Must be signed by all contestants before flight sheets can be issued. If team entry so state and have all members of the team sign.)

I am familiar with the standards and regulations of the National Association of Rocketry and with the Safety Code of the NAR and I agree to abide by them. I further agree to observe and abide by the orders of the presiding range safety and control officer. I also agree that the ruling of the judges shall be final.

Date _____ Signed _____
Contestant

*PARENT'S CONSENT, (Must be signed before entry of any contestant under 21 years of age can be accepted and flight sheets issued.)

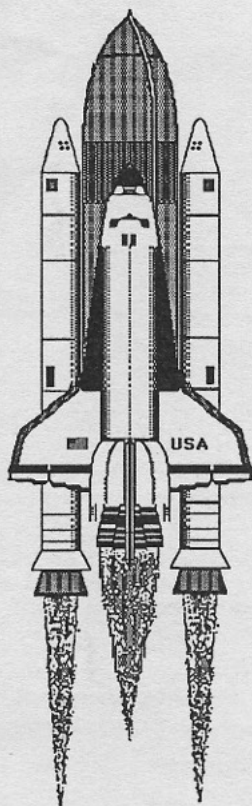
As parent or legal guardian of _____, a minor, I hereby give my full and unqualified consent to his/her participation in this NAR-sanctioned meet, and to his/her accepting any and all awards whatsoever that he/she may win, whether it involves travel or otherwise.

Date _____ Signed _____



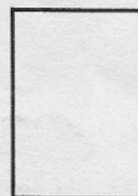
MAX-Q!

M
M



HARA

Huntsville Area Rocketry Association
1028 Antietam
Huntsville, Alabama 35803



TO:

Pathfinder..Enterprise..Columbia..Challenger..Discovery..Atlantis....