The Upstate Rocketeer

Official Publication of MARS™, the Monroe Astronautical Rocketry Society, Section 136 of the NAR®

September, 1993 | Rochester, NY | Volume 6, Number 5

NARAM 35: What a Meet!

This year's National Association of Rocketry Annual Meet was held in Frederick, Maryland. This was the first NARAM for most of the MARS participants but we were already quite familiar with the field and the area. That's because we spent two weekends there in June flying ECRM-20. NARHAMS, the host section, had done a nice job with ECRM and we expected this NARAM to be a good one too. The main reason for NARAM is to select national champions in NAR competition, thus the reason for NARAM's second name, the "Nationals". NARAM is more than that however. The NAR holds an association meeting at each NARAM. There is also a manufacturers forum. Other meetings and get togethers, both formal and informal round out the week's activities. This report is divided into three sections. The first covers the competition flying, the second covers the night time activities, the third covers miscellaneous events. The competition coverage mainly covers C division and in particular, flights by the "Methane Men."

WHY IS THIS MAN SMILING? – MARS™ member John DeMar collects his trophy for most C Division NARAM points. Photo from video by Dan Wolf. ➢

The Competition

NARAM 35 was a landmark NARAM for MARS with 5 members competing in C Division. The MARS crew was really looking forward to NARAM this year as it was the first nationals for most of us. Based upon the points standings uploaded to Modelnet the week prior to NARAM, it looked like going in that John DeMar and Dan Wolf both had a legitimate shot at the C Division national championship. Upon arriving at NARAM, it was discovered that points for a GSSS open meet had not been included in the pre NARAM list provided on Modelnet earlier in the week. With the points from this list, C Division leader Glenn Feveryear had 900 points more than before. This put his lead at 1700 points over John and Dan and it looked like the chances for a C division championship for either of them was remote. The rest of the top ten didn't change however and so the "battle for second" began.

The other championship races of interest included the B division "shoot out" between Andrew Miller and Chad Ring. Also of interest – could Laünch Crüe hold onto their seemingly insurmountable lead for the section championship?

Monday's Flying

Things got underway Monday with 1/2A Parachute Duration (MR) and B Helicopter. The winds were light, but from the south, the worst possible direction given the corn field north of the range. The contest range was setup in an identical position as at ECRM, the infield of the "middle" ball field. Most people started out flying PD and several modelers found themselves in the corn field searching for their models. John DeMar spent much of the early part of the day searching for his PD model that maxed on the first flight. Later, John flew a second model to a max and managed to return it. In the meantime, several other contestants were pulling maxes too so John needed a max on his third flight. But John also needed a return so he debated whether to use a spill hole in his chute. First John cut a large spill hole, but then he taped it back in and headed up to the

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Inside This Issue. . . .

Op / Ed

Blowin' In the Wind

Well NARAM-35 has come and gone. Tom Lyon and the rest of the NARHAMsters did a super job with the NAR's premier event. I had a great time and I believe most of the other club members that attended did as well. I want to take this opportunity to formally congratulate John DeMar for his outstanding performance at NARAM. As you will read in the NARAM coverage article, John flew an outstanding meet, and was the NARAM points champion. It also move John from his pre NARAM position of sixth to finish the year in 3rd place. This would be a great accomplishment for anybody but considering it was John's first NARAM, it was truly outstanding. Congratulations John.

Now that NARAM is over, many in the club are wondering what next? Indeed, much of our attention and energy the past several months has been devoted to NARAM and now that it is over, many are feeling a let down and are wondering what direction the club should take for the next several months. I have been looking for some clues as to what this direction should be, but so far I have not come to any firm conclusions. Wayne made a suggestion a while ago that the club develop a large high power rocketry vehicle as a club project. This is something that I myself personally would like to see us do. Others are not so sure. We also have MARSCON 94 and NYSPACE 94 coming up next year and preparations need to get underway for these events. Besides these activities, the club faces other challenges in the upcoming months as well. The end is nearly near for the Videk launch site. By next spring, we need to have a new club field. With the focus on NARAM this year, we have done little in the way of club growth and that is another area that needs our attention. We do have a solid core membership, and our launches have been well attended all summer (fortunately we've been blessed with good weather). Our membership is still relatively small however and we have not picked up any new members in some time.

So, as fall approaches, we need to start planning for the future. To do this we need active participation from all members. One way to do this is to attend the meetings and give us your input. While the on field attendance has been good, meeting attendance has not. We need more people at the meetings so that the activities we plan are what the membership wants to do. I hope that the meeting night change to Tuesday along with everyone getting back to their routines this fall will result in higher meeting attendance levels. As a member of the program committee I will try to make sure that each meeting has a clear and well defined agenda so that we can make the business part of the meetings short so that we can "get in and get out." In return I hope that you plan on making it to the meetings this fall whenever possible.

Until next time,

Dan

Wow! NARAM's come and gone, and the academic year is starting again! Hopefully, we can get in a few good sport launches and a contest before the snow falls.

I feel that a comprehensive program of events, with a good balance between sport flying, competition flying, meetings, workshops and building sessions, and social activities, is best for our section. If we lean too much in one direction, we will as a group suffer.

That's why a diverse program is planned for the coming months. We have waivered sport launches, two contests, building sessions, and of course MARSCON, coming up. I hope you can participate in these activities.

Although you've probably already noticed, this issue of the *UR* has a different look. Not that I think there was anything at all wrong with the way it used to look; Dan has been doing a superb job all along. However, it's a big job for one person, and I approached him about helping out. So that's what happened. All those years of breathing lead dust as a typographic apprentice have amounted to something, after all (I think).

I started out with the second issue this year, with the photo pages. The idea was to gentle us into fully integrated text and graphics, which we have now in this issue. I hope you are pleased with the results.

Have fun and fly 'em high!

John V.

Upstate Rocketeer is published by the Monroe Astronautical Rocket Society (MARS™), Section 136 of the National Association of Rocketry, as a service to its members and other NAR members in Western and Central New York State.

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Submissions: Submissions are welcome from any source. We prefer material in electronic form, though please submit a hard copy as well. Currently, we accept color and black and white prints, slides, and Photo CD.

Colophon: Upstate Rocketeer is assembled on an Apple Macintosh computer using Quark Xpress page makeup software. The body type is Optima, designed by Hermann Zapf for the Stempel foundry. Headlines are in Helvetica Bold and Bold Italic, designed by Max Meidinger for the Haas foundry.

range for his last PD flight. Flying late in the day, John again found good air and saw his second PD model thermal away far north of the range. That left John in a tie with Ken Mizoi and Bob Koenn for first but with no models for a flyoff round! Flyoffs were scheduled for Tuesday but John was not able to find either model and had to settle for third place.

Jeff Ryan also flew well in this event with one max and a 301 second total good for eighth place. The rest of the "Methane Men" finished well back. However, the 3rd and 8th place finishes for the club were a sign of how well MARS would do during the week.

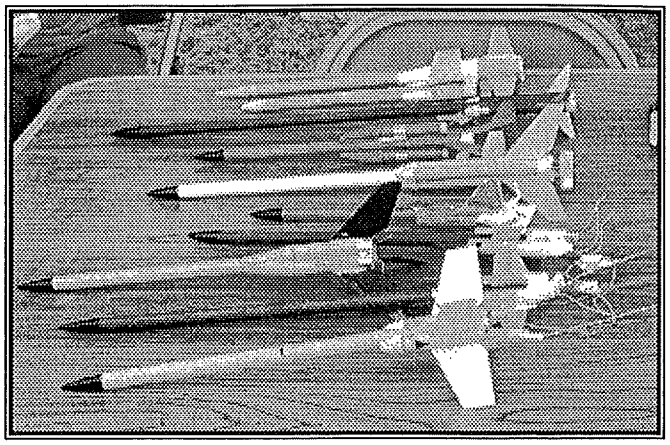
In Helicopter, Dan took 4th place with a Rose-A-Roc that was a clone of the one he flew at ECRM. John DeMar edged Dan out for 3rd by flying composite B7 motors in his home brew Rose-A-Roc style bird. Jules Distel and Glenn Feveryear took first and second places respectively in HD. Glenn flew a B4-4 powered Rose-A-Roc similar to Dan's but he was able to fly it into a thermal for the best single flight of the meet, 168 seconds. Glenn's second "I need a return flight" was perhaps a little too conservative however and was only a 46 second flight. That allowed Jules to edge Glenn out by 2 seconds. Meanwhile Jeff put up two successful flights with a scratch-built Roto-Roc bird for 23rd place. At the end of the first day, MARS had 3 places in two events!

Tuesday's Flying

The second day's events were 1/2A Streamer Duration and B Rocket/Glide. Dan and John D. were both looking forward to B R/G after their strong showing in Monday's events coupled with how well they had flown R/G this year. As it turned out, neither Dan nor John did well in this event as neither was able to get great boosts or find good air. However MARS put on a strong showing anyway as John Viggiano and Jeff Ryan both flew well, with both flying their own slide wing designs. They both made flights that featured nice straight boosts, good transitions and nice glides. The difference between their flights and the winning flights was in being able to find good lift and keeping the model in sight. Still, John finished 5th and Jeff 6th, with all of their flights over 100 seconds.

Meanwhile in 1/2A SD, John DeMar picked up where he left off by maxing two of the three flights and taking first place. The rest of the MARS crew DQed at least one flight. John's first place in SD was the third event he had placed in (out of four!) and it was the 4th medal overall for the club in two days! Meanwhile Glenn had only placed in one event so if John continued to fly well, he still had an outside shot to overtake Glenn.

Overall, the competition side of the week was going well for us, and the meet was running smoothly. Results were posted several times each day so contestants could see how things were progressing. It was shaping up to be a good NARAM.



CLUSTER ALTITUDE– A variety of 3x1/2A Cluster Altitude birds show many different approaches to this new event. With no two alike, there were no complaints of "a tube, three fins, and a nose cone" in this event. ➢

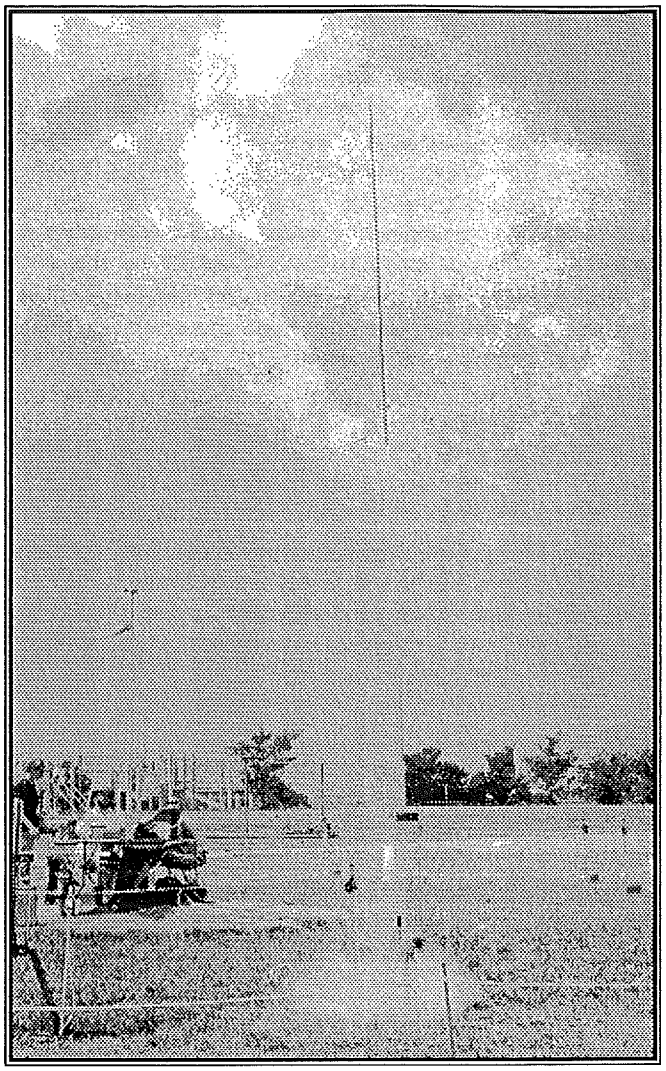
Wednesday's Flying

The third day was altitude day with 1/2A Cluster Altitude and A Payload on tap. It was also the day that the first real problems occurred. Despite a smooth running operation during altitude flying at ECRM, the range operations completely bogged down this day. The average time from check-in to flying your model was typically over an hour. This came about for two reasons. First, there was some problems with the communication system that were resolved by mid morning. Second, several people assigned to range duty did not report. These two things created a backlog of flyers such that even when things were working better in the afternoon, the wait was still long. To top it off, it rained late in the day forcing a close to the day's flying. A contestants meeting revealed that many people had made only one or two flights so the decision was made to continue flying A Payload and 1/2A Cluster on Thursday and move D Dual Eggloft Duration to Friday. C Super-Roc Altitude would also be flown Thursday but would be limited to one qualified flight per contestant.

Thursday's Flying

Thursday things went much better. The range operations were very smooth, more like they had been at ECRM. In the middle of the afternoon another storm came through that shut the range down for about 45 minutes. Most everyone had flown by this point but the range reopened and flying continued until 5:30.

MARS did well in the altitude events. Cluster Altitude was the only disappointment when no one placed. The MARS models were competitive, but we were unable to pull off effective air-starts. After a series of unsuccessful air-starts by John V. and Dan, they both used simultaneous ignition to take 7th and 9th places respectively. Ironically, Dan had no problem airstarting at a practice session before NARAM but was 0 for 2 at the big dance. Jeff continued to qualify in every event he flew but John D. and Ferenc both



Ferenc's SuperRoc at liftoff.The beginning of a beautiful flight from Dan's extended tower. ➢

DQed the event. It was disappointing to see no one from the club place in the event when we had worked on it and practiced for it (not to mention our 1-2 finish at ECRM). Dr. Bob Kruetz showed everyone how it was done by having his model airstart precisely at the correct moment for an incredible 222 meter flight. This topped second place Dave Lewicki by 33 meters, who also successfully airstarted. All of the top finishers used "three is a row" models with the outboard motor tubes vented to allow the center motor to be air started.

MARS did better in A Payload. Dan took 3rd with a 104 meter flight piston launched from a tower. John DeMar finished 5th with a 100 meter flight and Jeff Ryan was right behind in 6th with 94 meters and John V. was 10th with 84 meters. All of these flights were piston launched. Dr. Bob blew everyone away again with an incredible winning altitude of 142 meters using a very light fiberglass airframe.

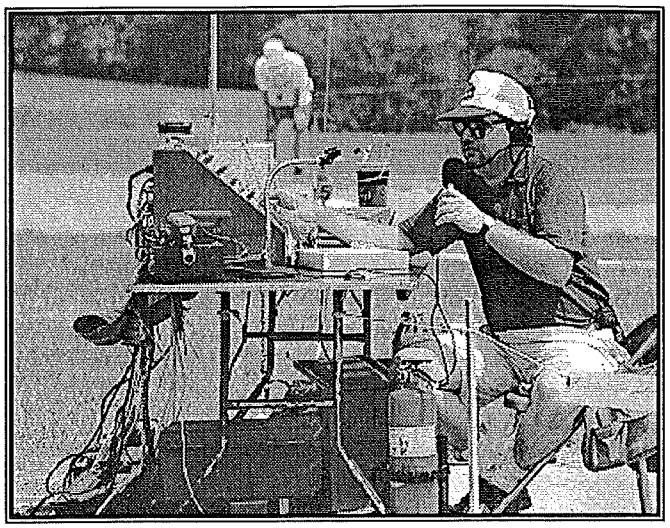
The story of the day however was in C Super-Roc altitude. Most of the "Methane Men" had elected to wait until NARAM to build a rocket for this event so as to avoid problems in transporting these long skinny, fragile rockets to the meet. Thus many of the Methane Men could be found building their Super-Rocs at 2:00 AM Wednesday. Dan discovered that this was not the best strategy, as he had to make field repairs the following day so that the rocket could be flown. This left his Super-Roc 10 cm short of maximum length, which probably hurt his score somewhat as he finished 9th. Ferenc flew his model early Thursday, had a perfect straight boost and was on top of the leader board much of the day with 1192 points. Jeff and John V. both qualified on their first flights but were further down. Jeff, John V., Ferenc, and Dan all used C6-5 motors for their flights. There were a number of people who tried to use the Apogee C10 motors; most were unsuccessful. Ken Mizoi showed up with another of his fiberglass Super-Rocs however and was able to take 1st place with an incredible 1312 point total flight (altitude of 281 meters) using a C10.

After the rain storm, John DeMar set out to fly the event. He looked at the leader board and saw Ferenc now in 4th place with a respectable 1192 point total. The second and third place scores were good too, 1223 and 1200. Knowing he needed a great flight to place, John planned to use an Apogee C10. John talked to Ken Mizoi who said "Black Shaft can't handle a C10, only my fiberglass model can take it." Then he talked to Ed Lacroix who also advised against using a C10. Dan Wolf also suggested that he not try it. But John had built his model full length with 18mm tubing and he felt it was up to the task. Fellow MARS members Dan and Ferenc (along with Ed Lacroix) all had the privilege of tracking this perfect straight up flight, with no wobble or signs of Black Shaft failure. That is until it descended. The model separated into two pieces at ejection. Not a problem as both were coming down safely. The top part was floating down sideways and the RSO was all set to qualify the flight. But as fate would have it, the rocket landed on the aluminum bleachers next to the ball field. Besides making an awful "racket" the Black Shaft also shattered into a million pieces, causing the RSO to DQ the flight for unsafe recovery. Had it landed in the grass, it probably would have been a qualified flight.

These circumstances set the stage for the sequence of events we are all familiar with. That is, John D. fighting time to build a model and fly it before the end of the meet so as to win the event (or take a place and/or win the meet, or whatever). This flying "style" has become John's trademark over the past few years so it was fitting that he would close out NARAM this way. Jeff Ryan had stopped out at the tracking stations to tell the rest of the Methane Men what was going on. We all watched as John, sitting at the picnic table next to the "DeMarmobile" was working feverishly to get a model built to fly. "There was no time to sand the Black Shaft, I flew it rough" John said later. John used the infamous Alpha fins from ECRM-20 Super-Roc fame. We were keeping one eye on John and one eye on the clock out there at tracking east. "Check-ins close at 5:00 PM" was heard over the PA. A look at the watch, it was 4:45. Then it was 4:50. John was still sitting at the table. Then it was 4:55. John was getting up. Oh no! He sat back down again!

No wait! He's up again, and on his way to the check in table. It was 4:58 when John checked his model in. John said later that the epoxy fillets were still soft when they measured the length of the model. Then over to the tower. Now that John had checked it in, he seemed to take his time getting things ready, as he had until 5:30 to fly the model. Finally, the launch was made. Another perfect boost on a C10. This time the recovery was safe, and John took second place with a 1264 point total. As it turned out, this was one of the last flights of the meet. It gave John enough points to be the meet champion, but more on that later. The downside was that John finishing second pushed Ferenc into 5th place. Again MARS flew well with 2nd, 5th, and 9th places in the event.

That evening the R&D presentations were made. John D. placed third with his on board data logger while John V. placed fourth with his report on a Postscript based CAD system. More details on R&D in the "NARAM at Night" section.



LAUNCH CONTROL IS GO! – John Viggiano serves as Launch Control Officer on the NARAM contest range. Photo by Steve Lubliner. ➢

Friday's Non Flying

As we peered out our hotel windows Friday morning we saw dark gloomy skies and rain. The Methane Men headed out for the range anyway. We didn't want to incur the "wrath of Lyon" for failing to miss our range duty. When we arrived at the field, we found the NARHAMSters busy tearing down the range. From a quick chat with Tom Lyon, we learned that NARAM was over. Friday's events were rained out. Initially, Tom had decided to award the trophies in Sport Scale based on the static points. Later in the day, Tom was directed by contest board chairman Matt Steele to award contest points as well. This upset some of the competitors for a variety of reasons. A protest was filed with many of the contestants signing the protest as a matter of principle. How could points be awarded when the rules clearly state that an entry in Sport Scale must make a qualified flight or be disqualified many were asking.

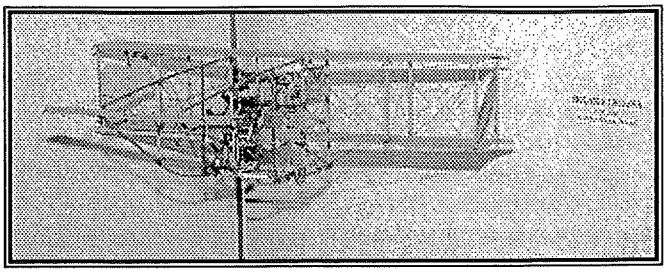
Competition Summary

Thus ended the contest flying at NARAM. One of the highest weighing factor events and one of the most interesting was not flown due to the circumstances, that is, D Dual Eggloft Duration. It turned out John DeMar's second Super-Roc flight was one of the last contest flights made at NARAM 35. This comes as no surprise to most of us. It was also no surprise that flight put John in first place for the NARAM meet championship. When the results were tallied, John, with one 1st, one 2nd, two 3rd, and one 4th place had a total of 1799 points. John had a total of 5 places in nine events. An outstanding achievement for any NARAM, let alone your first. Ken Mizoi also flew a good meet, with four places including two 1sts. Their performances were not good enough to catch Glenn Feveryear however as he easily held on to the C division lead and took the C Division championship. Ken's pre NARAM lead was just enough to hold off John for reserve champion. Thus John finished the year in 3rd place while Dan could only move up a few places to finish the year 5th. John Viggiano ended up 12th overall while Jeff was 18th and Ferenc was 22nd. All of the "Methane Men" finished in the top 25. Congratulations guys! Overall it was an interesting week of competition. The east coast clubs dominated with MARS being a factor in C Division in doing so. MARS finished the year in 5th place, the highest place ever for MARS. Without any A, B or Teams competitors, this was an outstanding showing and everyone who flew for the club this year should be congratulated.

NARAM at Night

Besides the contest flying, there are NARAM activities at night as well. This years schedule included the following. On Sunday night there was a "town meeting" on AmSpac with editor Steve Weaver. Tuesday was the Manufacturer's Forum and a meeting on how to improve NAR competition. Wednesday was the Association Meeting. Thursday night was the time for R&D presentations. Friday night of course was the awards banquet. (Note: The information on the night time activities is not complete due to slow service in most of the restaurants we ate at in Frederick. We joined many of the night time events "already in progress.")

The AmSpac meeting was not on the original schedule and was only made aware to the participants at the contestants meeting just prior to it. Perhaps because of this or because many people still had models to finish, the turnout was light. Steve Weaver, the AmSpac editor gave a brief presentation on what programs he currently has underway regarding the magazine. First, advertising is up $19K this past year. Also, an agency has been hired to increase advertising. Second, Steve plans to increase the retail sales in hobby shops. The goal for this year is to double the number of hobby shops the magazine is in from 30 to 60. He is also



EARLY FLYER: The Boland Tailless was one of several models on display at the National Air and Space Museum. Some say the airplane was actually invented by the Bolands. Be the first on your block to ignore those brothers from Dayton. . . ➢

using Hobby Merchandiser magazine and its reader response card to increase the distribution. In addition, via a distributor, 550 copies of the current issue will appear on newsstands. This fall look for a holiday gift guide/product showcase to appear in the magazine. Steve also mentioned the tele-marketing campaign where for a long distance calling service. The NAR gets 2% of the long distance phone charges for members who sign up. Steve also mentioned he is striving for consistency in several areas of the magazine including the production schedule and in having regular columns that would appear in each issue. Also, he plans to have an editorial schedule laid out to help submitters and advertisers. Another item mentioned was a "Product of the Year" feature. Plans are to try to penetrate the education market and to produce a special "Space Camp Issue" to go to attendees of the various Space Camps held around the country. Other goals Steve mentioned for the magazine include a distribution of 10000 copies per issue and to operate in the black. Finally, Steve mentioned that deadline dates will be established.

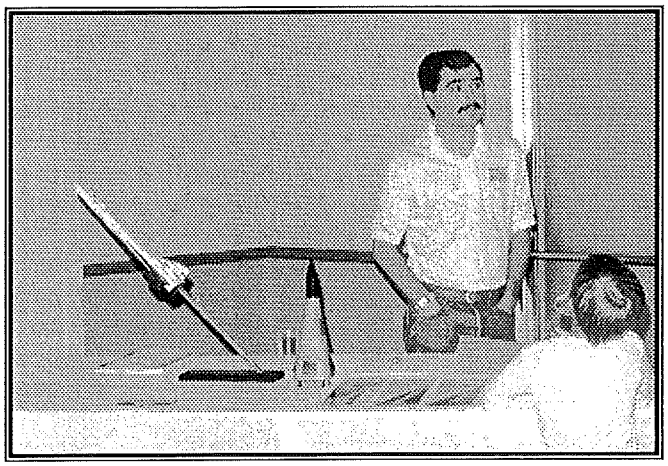
The technical accuracy of AmSpac articles was brought up in the Q&A session following Steve's presentation. This seemed to be one of the key areas of concern. Plans are to have a pool of NAR members who will review the articles for technical correctness. Also, the writing level for AmSpac articles was also discussed with no clear outcome. All in all, it was an informative session for those who attended.

Manufacturers Forum

This year's manufacturers forum was somewhat disappointing as compared to previous years. Several small companies were on hand including Balsa Machining Services. The highlight of the forum was Ed LaCroix of Apogee Components announcing two new motors in the Medalist series. New to the lineup will be 18mm C4 and D4 motors. Presumably both for gliders and other light weight models. The price will be about the same as the current B7 and C10 motors, $7.95.

Competitors Discussion Group

A group of about 40 competitors participated in a discussion group led by Ed LaCroix. After close to an hour of discussion, the group reached consensus on some key items. First, everyone agreed that present rules require too many events to be flown at a contest. The group agreed that the old contest weighting factor limits be used with the new event weighting factors. This would have the effect of cutting in half the number of events at a contest. Second, the group agreed that a system of skill level or merit level competition divisions rather than age based competition divisions be investigated. There was also discussion on the elimination of B division. Overall it was felt that this discussion group was worthwhile and everyone present contributed.



MANUFACTURERS FORUM: Bill Stine of Quest answers a question, which is probably about the beautiful X-30 kit, to the left, due out soon. ➢

Association Meeting

This year's Association meeting was preceded by a "town meeting" where members listed reasons as to why the NAR should exist. Following that the formal meeting began. The meeting began with Joe Egan, an attorney with the law firm of Shaw Pittman in Washington, DC giving us the up to date information on the many regulatory fronts. Joe gave the history and status of the FAA situation as well as discussing the situation with the DOT, CPSC, and others. Joe and others at Shaw Pittman have been working "pro bono" for the NAR and to date the NAR has received $176,400 in services for free.

Most of the meeting was taken up with proposals and discussions on the new Pink Book discussions. Two motions were passed to send two emergency rule change proposals to the Contest Board. One was to reestablish "B" division and the other was to use the old Pink Book contest weighting factors with the new event weighting factors. Both of these proposals came from the competitors meeting the night before. A motion was also made for a committee to be formed to look into a "skill level" based competition division system.

At the end of the meeting secretary C.D. Taveres submit-

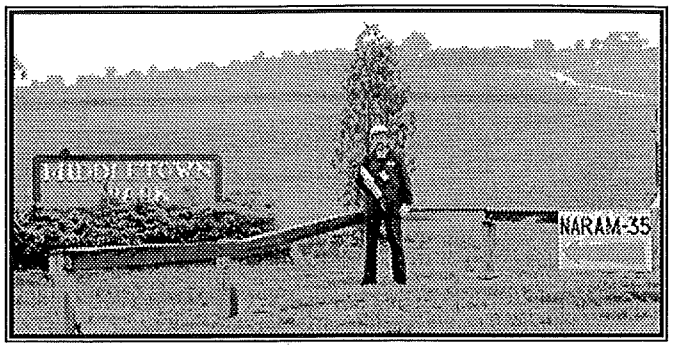
ted a group of proposed changes to the By-Laws that would be voted on at the next Association meeting, presumably after review and discussion by the Trustees. Among the proposals submitted were the following: a proposal for term limits for Trustees (9 years total), changing the number of Trustees from 12 to 9, staggering the Trustee terms so that three are elected each year instead of the current system where all are elected every 3 years, not allowing a principal of a company in the hobby to be elected as Trustee and others.

Research & Development

Research & Development presentations were made Thursday evening. Thanks to the slow service in a Frederick area restaurant, there is no report on the A division presentations or on the first place B division presentation. This was extremely disappointing, because this report dealt with using doppler shifts to measure rocket velocity or altitude or something along those lines. It was presented by Daren Childers. Daren used a PC with a Soundblaster card to do this project and everyone I talked to said it was an outstanding report. We did manage to catch Andrew Millers report on 1/2A Cluster Altitude strategies. Andrew did a nice job with this one although he seemed nervous. What was impressive was the field testing he did. An often thankless job and often unappreciated by the judges as well. It takes a lot of effort to do all of that test flying and then reconcile the data in a scientific and organized way. Unfortunately, this writer also missed the beginning of the C division R&D reports as well when he had to go drag two of the Methane Men from their rooms to get them to the room on time for their presentations (as it was they just made it). We did manage to catch the second half of Larry Curcio's first place winning presentation on altitude determination. Using time thrust curves and a stop watch, Larry showed how to use the time to apogee to determine the altitude of a flight. Larry's extensive flight testing and data analysis showed his method was fairly accurate, comparable to the standard optical tracking technique. Second place went to Robert Edmonds who developed a "closed loop system" auto adjustable canard B/G that causes the rocket to adjust itself to always have a vertical boost. John DeMar's report was third and John Viggiano's report was fourth. Also tied for John in fourth place was Lila Schmaker whose report was on the psychological effects of NARAM and NAR competition on A and B divisioners.

The Banquet

The banquet was held at the Holiday Inn in the normal Hotel Restaurant. We arrived late, due to just returning from a trip to the Smithsonian in D.C. Thus we were sitting at probably the worst table in the room. The room was narrow and long, and the lighting was poor. It was one of the few disappointments of NARAM. Nevertheless, the food was good and the banquet, although long, went fairly well. Humor was provided by the "NIRA" table where Ric Gaff,



WHAT DO YOU MEAN, WE'RE RAINED OUT? – Ferenc poses at the park enterance with his V-2 Sport Scale bird that he didn't *get to fly that day.* ➢

Bob Kaplow, Tom Beach and the rest supplied the appropriate "sound tracks" when different people were presented awards. Among the best, the "fly it" chants when various people won kits as door prizes and the "oh-ee-oh, aaa-oh" sounds ala the "Wizard of Oz" castle guards whenever the Southern Neutron team accepted an award. The time they hummed the "Bonanza" theme would have been even better but it didn't sound to good (let's see Wayne as Little Joe, Jay as Adam, Ed as Ben, and of course George as Hoss). Ric told me the next day that it might have sounded better but with only 3 seconds of practice, well, you get what you get. Also the next morning, two new suggestions surfaced from the NIRA crowd, the Adams Family theme song and the them from the Beverly Hillbillies.

MARS presented contest director Tom Lyon with a bottle of Space Shuttle wine and made him an honorary "Methane Man" in appreciation for all of his efforts both at NARAM and ECRM. We had hoped to get a T-Shirt made but thanks to Ferenc, we were able to present this unique gift of a combination of rocketry and Upstate New York to Tom. This time the chants were "drink it, drink it!"

Of course all of the event trophies, meet trophies and championship trophies were presented. The banquet might have gone faster had Ken Mizoi, John DeMar and Dr. Bob sat closer to the front. There were also several door prizes given away. Ferenc won one of the sealed lead acid batteries that NARHAMS had been using all week on the range. Ferenc donated it to the club and it has already proved its worth by launching all the rockets at the August 22nd sport launch. Dan won an Estes Jayhawk kit while his wife Chris won a Countdown Hobbies T-shirt. Jeff won some packs of engines. The MARS table looked impressive with all of the door prizes plus John DeMar's trophies stacked up on it.

Special Awards

Bill Spadafora was the recipient of the President's Award for his outstanding work with NARTS including the 48 hour turnaround time he has achieved since taking it over. The Howard Galloway Award was given to Joe Egan of Shaw Pittman for his outstanding service to the NAR on regulatory manners. The LAC Newsletter Award was won by the San Diego DART Section Newsletter, WARP 9. Runner up was

HONORARY MAN FROM MARS™: Tom Lyon accepts a bottle of Bully Hill Space Shuttle White and our congratulations on a teriffic meet. ➢

the Colorado Rocketry Association Newsletter. Honorable Mention went to SPAAR with Countdown and Sooner Rocketry (Oklahoma Section). Last but not least, George Gassaway won the "Best Midwest Qualified Flight" Award for the midair collision of his R/C R/G and Ken Brown's flying detergent bottle.

Sport Range Flying

C.D. Tavares and other members of CMASS did a nice job as usual running the NARAM sport range. There were a lot of nice flights made all week long. Unfortunately the "Methane Men" found little time to enjoy the sport range. Still, John Viggiano did manage to fly his Stretch Initiator on an F50 and his Firehawk on a D12. The D12 separated as usual and a kid on a bicycle ripped off the nose cone and parachute. Fortunately, C.D.'s wife spotted some kids playing with it and John was able to recover it from them at a nearby house the next day! Ferenc put up some flights on the sport range too including a nice Aerotech E15 flight with his LOC Onyx. Will Safford had a number of interesting high power flights including a modified Microbrick Potemkin on three G210 motors, a Microbrick Maxon an a Kosdon I400-10 and his Magnum "12-pack" powered by three F80s, three F41s, and six F14s. All motors by AeroTech. The rocket had a slow takes off with lots of smoke but there was no ejection. The model fell horizontally until it was only a few feet off the ground when the chute did come out, causing it to hang up on the power lines. Tom Lyon called the power company to come and get it down. Other sport flights of note include the mid-air collision of Ken Brown's detergent bottle rocket and George Gassaway's R/C R/G. Ken's model was descending on its chute. George's glider had launched previously and was gliding around. George meant to just "take a pass" at Ken's model but miscalculated and saw his glider get tangled up in the chute of the detergent bottle, with both models then rapidly falling to the ground. This "flight" earned George the "Best Midwest Qualified Flight" award. Another nominee for the award was former MARS member Doug Pratt's R/C RG flight of an AeroTech Phoenix. The Phoenix hung up in the launch rails and stayed there for the entire burn of the G motor. The net result was a "torched" Phoenix and NAR President Pat Miller and all others present rolling on the ground in laughter. Doug seemed to take the entire incident in stride and he donated the Phoenix tail feathers to be part of the Best Midwest Qualified Flight award.

Closing Comments

(Some closing thoughts in no particular order)

Bill Spadafora did a nice job with the range store. There was a nice selection of Estes, Apogee, and NARTS items all week long. The biggest criticism was the lack of Aerotech motors and other high power items. In particular, D21s were in short supply. This was not Bill's fault, but relates more to the current AeroTech situation.

This brings up a complaint that several people had regarding this NARAM. None of the "high power" dealers turned out for NARAM. While it is true that LDRS was probably the better place to be if you are selling AeroTech, Vulcan and other high power motors and supplies, it was a disappointment that there was no place to buy H and above motors. Many people brought rockets to fly H and I motors with but were not able to do so due to no one selling these motors at NARAM. Hopefully this was a one time anomaly due to the regulatory state of affairs and availability of motors.

This NARAM saw a lot of the NARAM "regulars", but on the other hand, there were a lot of first timers (MARS provided 4 alone). Both new and old all seemed to have fun. At this NARAM, perhaps more than at any other I have attended, people seemed to really enjoy the competition and the fun of contest flying. Sure, there was a few who maybe took things too seriously, but the majority seemed to be there to do their best, and have fun in the process.

LET'S SEE–ELEVATION 78°. . . . George Gassaway prepares his Raven RC bird for one of many impressive flights. ➢

Perhaps the phrase "NAR Competition is Fun!" would best describe the feeling I walked away with from this year's NARAM. I don't know if we will see an increase in numbers of people flying competition, but a strong core of contest flyers do exist, and it looks like that core will continue to keep the NAR's competition rocketry program healthy for the next several years. ➢

NARAM 35 Results Summary

(top four places each division plus MARS finishes)

1/2A Cluster Altitude

A Division		
1. 59309	Crosby, Chris	162m
2. 57690	Filler, Michael	154m
3. 52684	Koenn, Matthew J.	147m
4. 41004	Marsh, John	142m
B Division		
1. 40847	Gormley, Bobby	180m
2. 51617	Miller, Andrew	174m
3. 53708	Duva, Joseph L.	158m
4. 54797	Gormley, Kevin	133m
C Division		
1. 35100	Kreutz, Dr Bob	222m
2. 26576	Lewicki, Dave	189m
3. 14575	Jackson, Andy	178m
30017	Mizoi, Ken	178m
4. 51615	Miller, Paul E.	176m
6. 25615	**Viggiano John**	**154m**
8. 24516	**Wolf, Daniel W.**	**148m**
14. 46148	**Ryan, Jeffrey**	**143m**
52094	**DeMar, John**	**DQ**
11077	**Róka, Ferenc Gy.**	**NDP**
T Division		
1. T-002	Usual Suspects	173m
2. T-034	Ren & Stimpy	170m
3. T-553	Southern Neutron	167m
4. T-042	Sudden Impulse	157m

A Payload

A Division		
1. 46440	Smith, Shaun D.	76m
2. 41004	Marsh, John	71m
3. 52684	Koenn, Matthew J.	69m
4. 55031	Spalding, Tom	67m
B Division		
1. 50652	Ring, Chad	101m
2. 40847	Gormley, Bobby	99m
3. 51617	Miller, Andrew	98m
4. 54797	Gormley, Kevin	74m
C Division		
1. 35100	Kreutz, Dr Bob	142m
2. 51452	Sherrill, Matthew G	111m
3. 24516	**Wolf, Daniel W.**	**104m**
4. 55663	Gormley, Kevin E.	102m
5. 52094	**DeMar, John**	**100m**
6. 46148	**Ryan, Jeffrey**	**94m**
10. 25615	**Viggiano John**	**84m**
26. 11077	**Róka, Ferenc Gy.**	**53m**
T Division		
1. T-553	Southern Neutron	111m
2. T-051	Hot and Cold	101m
3. T-034	Ren & Stimpy	99m
4. T-241	Lee-Purcell Team	89m

C Super-Roc Altitude

A Division		
1. 53731	McCoy, Mary K.	1237p
2. 57231	Mathis, Melinda	1224p
3. 57230	Mathis, Allison	1192p
4. 55031	Spalding, Tom	1190p
B Division		
1. 53708	Duva, Joseph L.	1222p
2. 51617	Miller, Andrew	1210p
3. 50652	Ring, Chad	1188p
4. 40847	Gormley, Bobby	1178p
C Division		
1. 30017	Mizoi, Ken	1312p
2. 52094	**DeMar, John**	**1264p**
3. 51615	Miller, Paul E.	1223p
4. 54233	Smith, Ron	1200p
5. 11077	**Róka, Ferenc Gy.**	**1192p**
9. 24516	**Wolf, Daniel W.**	**1176p**
14. 46148	**Ryan, Jeffrey**	**1156p**
19. 25615	**Viggiano John**	**1068p**
T Division		
1. T-553	Southern Neutron	1302p
2. T-051	Hot and Cold	1204p
3. T-503	Flirtin' with Disaster	1192p
4. T-100	Guns & Rockets	1132p

1/2A Parachute Duration

A Division			
1. 57690	Filler, Michael	120 120 120	360s
2. 52684	Koenn, Matthew J.	120 75 57	252s
3. 41004	Marsh, John	NDP 75 120	195s
4. 46440	Smith, Shaun D.	UNS 55 120	175s
B Division			
1. 51617	Miller, Andrew	120 95 120	335s
2. 50652	Ring, Chad	120 49 61	230s
3. 40847	Gormley, Bobby	UNS 120 50	170s
4. 54797	Gormley, Kevin	71 77 SAF	148s
C Division			
1. 30017	Mizoi, Ken	120 120 120 180	540s
2. 19196	Koenn, Robert J	120 120 120 34	394s
3. 52094	**DeMar, John**	**120 120 120**	**360s**
4. 51452	Sherrill, Matthew Gl	105 120 120	345s
8. 46148	**Ryan, Jeffrey**	**83 120 98**	**301s**
25. 11077	**Róka, Ferenc Gy.**	**53 25 83**	**161s**
30. 25615	**Viggiano John**	**101 SEP 34**	**135s**
39. 24516	**Wolf, Daniel W.**	**UNS 41**	**41s**
T Division			
1. T-503	Flirtin' with Disaster	120 120 120 106	466s
2. T-200	Coor's Light	120 120 120 90	450s
3. T-553	Southern Neutron	120 NDP 120	240s
4. T-051	Hot and Cold	78 31 120	229s

B Helicopter Duration

A Division

1. 52684	Koenn, Matthew J.	51	84	135s
2. 39257	Lyon, Tommy	50	69	119s
3. 46440	Smith, Shaun D.	40	37	77s
4. 56703	Skains, Eric	25	25	50s

B Division

1. 51617	Miller, Andrew	86	53	139s
2. 50652	Ring, Chad	59	69	128s
3. 40847	Gormley, Bobby	49	75	124s
4. 49363	Woebkenberg, Ryan	56	46	102s

C Division

1. 52977	Distel, Jules D.	160	56	216s
2. 24931	Feveryear, Glenn	168	46	214s
3. 52094	**DeMar, John**	**96**	**108**	**204s**
4. 24516	**Wolf, Daniel W.**	**101**	**92**	**193s**
23. 46148	**Ryan, Jeffrey**	**38**	**37**	**75s**

T Division

1. T-553	Southern Neutron	84	159	243s
2. T-042	Sudden Impulse	149	60	209s
3. T-241	Lee-Purcell Team	75	83	158s
4. T-051	Hot and Cold	114	SEP	114s

1/2A Streamer Duration (Multi-Round)

A Division

1. 59419	Maxwell, Sidney R.	60	60	39	159s
2. 59266	Johnson, James	39	52	25	116s
3. 46440	Smith, Shaun D.	44	SEP	48	92s
4. 55031	Spalding, Tom	46	46		92s

B Division

1. 50652	Ring, Chad	50	60	44	154s
2. 51617	Miller, Andrew	60	37	46	143s
3. 40847	Gormley, Bobby	20	53	55	128s
4. 54797	Gormley, Kevin	SEP	47	35	82s

C Division

1. 52094	**DeMar, John**	**60**	**51**	**60**	**171s**
2. 53623	Roman, Juan A.	49	60	60	169s
3. 28524	Safford, William	48	60	60	168s
4. 39989	Canino, Bruce	60	44	60	164s
23. 46148	**Ryan, Jeffrey**	**60**	**SEP**	**SEP**	**60s**
32. 24516	**Wolf, Daniel W.**	**SEP**	**38**		**38s**
38. 11077	**Róka, Ferenc Gy.**	**SEP**	**26**	**SEP**	**26s**
25615	**Viggiano John**	**SEP**	**SEP**	**EJ**	

T Division

1. T-051	Hot and Cold	60	60	60	120	300s
2. T-200	Coor's Light	60	60	60	65	245s
3. T-034	Ren & Stimpy	48	60	59		167s
4. T-241	Lee-Purcell Team	48	55	60		163s

B Rocket Glider Duration

A Division

1. 52684	Koenn, Matthew J.	189	87	276s
2. 46440	Smith, Shaun D.	106	SEP	106s
3. 50218	Cuthbertson, Robert	NVB	49	49s
4. 57690	Filler, Michael	16	NG	16s

B Division

1. 54797	Gormley, Kevin	60	157	217s
2. 51617	Miller, Andrew	57	NG	57s
3. 40847	Gormley, Bobby	US	26	26s
4. 46226	Lemon, Ralph E. III	21		21s

C Division

1. 16235	Klouser, David K.	87	225	312s
12282	Sisco, Warren	238	74	312s
2. 52423	Woebkenberg, David J	78	221	299s
3. 29354	Brown, Kenneth	230	63	293s
4. 57571	Creamer, Kevin	207	27	234s
5. 25615	**Viggiano John**	**115**	**106**	**221s**
6. 46148	**Ryan, Jeffrey**	**110**	**105**	**215s**
10. 52094	**DeMar, John**	**86**	**48**	**134s**
17. 24516	**Wolf, Daniel W.**	**30**	**50**	**80s**
11077	**Róka, Ferenc Gy.**	**NG**		

T Division

1. T-553	Southern Neutron	146	449	595s
2. T-241	Lee-Purcell Team	62	261	323s
3. T-034	Ren & Stimpy	68	131	199s
4. T-002	Usual Suspects	SHR	142	142s

Sport Scale

A Division

1. 52684	Koenn, Matthew J.	587
2. 46440	Smith, Shaun D.	574
3. 53731	McCoy, Mary K.	557
4. 39257	Lyon, Tommy	520

B Division

1. 51617	Miller, Andrew	745
2. 50652	Ring, Chad	705
3. 40847	Gormley, Bobby	655
4. 49363	Woebkenberg, Ryan	630

C Division

1. 26985	Alway, Peter	755
2. 24931	Feveryear, Glenn	680
3. 30017	Mizoi, Ken	605
4. 29354	Brown, Kenneth	585
13. 52094	**DeMar, John**	**425**
15. 25615	**Viggiano John**	**360**
21. 24516	**Wolf, Daniel W.**	**295**
23. 46148	**Ryan, Jeffrey**	**270**
28. 11077	**Róka, Ferenc Gy.**	**210**

T Division

1. T-553	Southern Neutron	746
2. T-200	Coor's Light	722
3. T-444	Cardiac Attack	676
4. T-241	Lee-Purcell Team	656

Research and Development

A Division

1. 46440	Smith, Shaun D.
2. 55031	Spalding, Tom

B Division

1. 44192	Childers, Daren
2. 40847	Gormley, Bobby
3. 54797	Gormley, Kevin
4. 51617	Miller, Andrew
5. 49363	Woebkenberg, Ryan

C Division

1. 55540	Curcio, Lawrence M.
2. 37700	Edmonds, Robert
3. 52094	**DeMar, John**
4. 25615	**Viggiano John**
4. 56500	Schmaker, Lila
5. 31375	Boyette, Richard
5. 55663	Gormley, Kevin E.

1992-93 Contest Year Final Standings

NAR#	Sec	Name	Pre NARAM Points	NARAM Points	TOTAL Points
A Division					
1. 46440	205	Smith, Shaun D.	5002	3220	8222
2. 55031	519	Spalding, Tom	4566	1029	5595
3. 52684	IND	Koenn, Matthew J.	0	2765	2765
4. 53731	139	McCoy, Mary K.	1085	1022	2107
B Division					
1. 51617	139	Miller, Andrew	4636	3416	8052
2. 50652	519	Ring, Chad	5430	2156	7586
3. 40847	205	Gormley, Bobby	2559	2702	5261
4. 49363	519	Woebkenberg, Ryan	3750	602	4352
C Division					
1. 24931	503	Feveryear, Glenn	3906	1127	5033
2. 30017	205	Mizoi, Ken	2676	1512	4188
3. 52094	**136**	**DeMar, John**	**2284**	**1799**	**4083**
4. 52423	519	Woebkenberg, David	2742	707	3449
5. 24516	**136**	**Wolf, Daniel W.**	**2251**	**644**	**2895**
12. 25615	**136**	**Viggiano John**	**1252**	**574**	**1826**
18. 46148	**136**	**Ryan, Jeffrey**	**881**	**427**	**1308**
22. 11077	**136**	**Róka, Ferenc Gy.**	**844**	**245**	**1089**
T Division					
1. T-034	463	Ren & Stimpy	4788	1099	5887
2. T-100	519	Guns & Rockets	4113	434	4547
3. T-051	506	Hot and Cold	2862	1372	4234
4. T-553	461	Southern Neutron	354	3493	3847

Sections:

#	Name	Pre NARAM Points	NARAM Points	TOTAL Points
1. 519	Laünch Crüe	25869	5824	31693
2. 205	NOVAAR	14641	13006	27647
3. 139	NARHAMS	14474	11004	25478
4. 439	Garden State	14360	3283	17643
5. 136	**MARS**	**6320**	**3689**	**10009**
6. 481	FL Spacemodeling	7501	1463	8964
7. 463	HUVARS	4898	2401	7299
8. 506	SSS	4947	1624	6571
9. 503	SPAAR	4336	2219	6555
10. 113	CSAR	4439	392	4831

NARAM 35 "Quotable Quotes"

"Everyone knows the pointy end goes down"

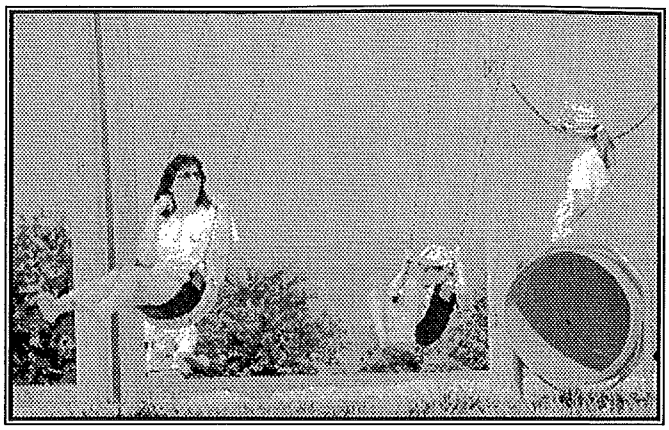
–Steve Lubliner during the AmSpac meeting when discussing reviewing articles for technical accuracy. Yup, these Trustees definitely need to get out on the range more often.

"Estes pink engine plugs fit MRC motors. Ten second R&D report"

–Bob "Happy Meal in Plastic Model" Kaplow

"I worked my butt off this year"

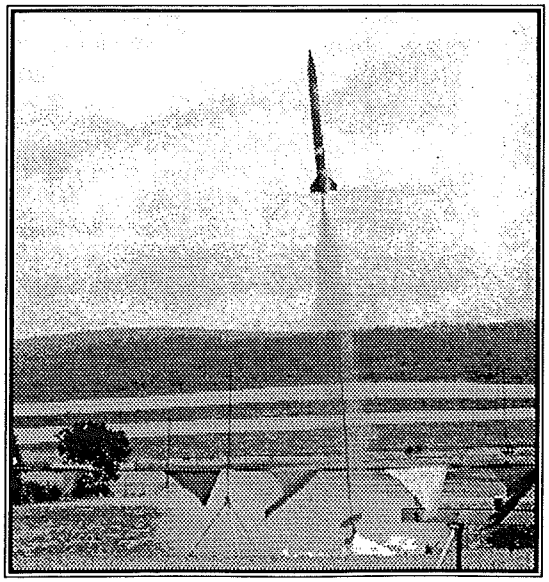
–Glenn Feveryear after many people at the competition meeting talked about how some people got to contests with little competition so as to build a big lead going in to NARAM. Apparently this discussion made Glenn a little bit uncomfortable. Glenn had the fourth highest point total at NARAM, he was competitive and he certainly deserved the title. However, in defense of reserve champion Ken Mizoi and our own John DeMar who finished third, they were one and two in total points at NARAM and flew against each other in three regionals this contest year. We don't know what the competition level was at the meets Glenn flew but we do know that Ken and John did not get any "cheap" points flying against each other, Jeff Vincent, Chuck Weiss, and others for much of the contest year. We do not wish to denigrate Glenn's championship but if he "worked his butt off", Ken and John certainly did as well.



Rocket "Widow" and "Orphans"– Susan DeMar, John's wife, shows great form on the Middletown Park swings. Stevie and Laura DeMar, to her right, join in the fun. ➢

"All these rockets are just three fins and a nose cone"

–Heard from several during the first day's flying. The next day Bob Kaplow showed up with a rocket built from Estes E2X parts that had three nose cones on the bottom to serve as fins, and a fin on top for a nose cone. A rocket to counter the critics, it had three nose cones and a fin! ➢



Will Safford's Magnum 12 Pack at the NARAM Sport Range on Thursday. Photo by John DeMar.

Club News

New Meeting Night

The vote is in. The membership has voted to change the club meeting night from the second Friday of the month to the second Tuesday. The vote was three votes for, two against and four "doesn't matter" votes. The next meeting will be held on Tuesday, September 14th at 7:00 PM.

September Sport Launch in Geneseo

If you didn't get a chance to attended the August launch, don't worry. MARS will be holding its September launch in Geneseo at the National Warplane Museum field. The larger field also will let you fly those models you didn't want to risk losing at the Videk site. On top of which, a waiver has been applied for to allow those larger models you have sitting around to be flown. Rockets up to 1500 grams gross launch mass and having less than 125 grams of propellant can be flown. Flying will get under way at 12:30 PM and continue until 6:00 PM.

Posters have been placed in area hobby stores to help attract new people to the launch. In addition, we will be running a spot landing contest in three age divisions for the non club members that show up. For the club members, we hope to run D Dual Eggloft Duration as an unofficial event, just to see how we would have fared at NARAM in the event. Bring those NARAM Sport Scale models too. Sort of an unofficial "NARAM - Part Duex" With a little help from the weatherman this should be a good launch.

Building Session

A club building session will be held on Saturday, October 2nd. The time and location are to be determined.

Finger Lakes Fall Classic

MARS will be hosting the Finger Lakes Fall Classic II on October 16-17. This contest is an NAR sanctioned Open Meet. It will be held at Videk and will run from 10:00 AM to 5:00 PM on Saturday and 12:00 PM to 3:00 PM Sunday. Tracking will only be day, which one depends on the weather. The events are: 1/2A Boost/Glide, 1/2A Super-Roc Altitude, B Eggloft Altitude, A Helicopter, Sport Scale.

Nine month MARS Calendar

Here is the list of activities for the next nine months.

September: Meeting, 14th
Sport Launch, 19th @ Geneseo

October: Fall Building Session, 2nd
Meeting, 12th
Finger Lakes Fall Classic III, 16-17

November: Meeting, 9th
Sport Launch, 14th

December: Meeting, 14th

January: Sport Launch, 1st
Meeting, 11th

February: Meeting, 8th
Sport Launch, 20th

March: Meeting, 8th
MARSCON '94, 12-13

April: Meeting, 12th
Sport Launch, 17th

May: Meeting, 10th
NYSPACE 94, 14-15 ➢

MARS August Sport Launch

MARS members turned out in good number for the August 22nd sport launch. This one offered some club members the chance to "wind down" from the gruelling contest flying at NARAM while it offered others a chance to "tune up" for the September 19th waivered Sport Launch in Geneseo. Whatever the case, we had another good turnout. Merrell Lane attended the launch, his first one at Videk after being a club member for a number of years. Merrell's wife also came to the launch as well as his daughter and her boy friend. Also in attendance were Mike O'Brien and his son Shawn, and their friends. Other club members turning out were Wayne Foster and his son Christian. Wayne also brought his brother Kevin to his first MARS sport launch. Jeff Ryan was also in attendance with his daughter Jessica and the rest of the family. John Viggiano and Bud Piscini were there as well as was Dan Wolf with his family. The weatherman was kind to us for this one with comfortable temperatures, a light breeze and sunny skies for most of the day.

Merrell flew a number of models at the launch including some scratchbuilt Army/Navy missile style models. Merrell also flew both the Estes Patriot and the less often seen SCUD models. Finally, Merrell brought out the old Estes Maxi-Brute V-2, sporting a nice camouflage paint scheme. Liftoff on a D12 was impressive but it then took a quick ninety degree turn for most of the flight. We all held our breath as the model managed to deploy its chute for a safe recovery seemingly only a few feet off the ground. Merrell's daughter's boy friend had several nice flight's of the Estes E2X Rampage.

John Viggiano was finally able to get his Firehawk to work properly. A straight boost, perfect ejection and para-

chute deploy followed by a nice safe descent prompted John to fly it again. The second flight was as good as the first. John successfully flew his Lunar Patrol.

Jeff Ryan still fired up from NARAM attempted to fly his NARAM Dual Egglofter but the D21 chuffed on the first attempt and catoed the second time. Jeff did fly a small built up wing glider similar to a "Fish & Chips." Presumably we will see this one at our contest in October. Jeff flew it three times with varying degrees of success. While not flying contest models, Jeff helped daughter Jessica fly her "Day Glo Orange Alpha" for a number of successful flights. Jeff also flew his "Pencil" with a three D12 cluster.

Mike O'Brien was again present with family and friends. Mike and Shawn flew their unusual assortment of goodies. Of particular note was the flight of one of Mike's Sci-Fi creations with an E30. This minimum diameter lightweight model took off so quick many were calling him "Chuck Mund's" New York clone.

Christian Foster put up several nice flights including the ever popular Big Bertha on a C6-5. Wayne and Christian also flew an Estes Mercury Redstone for a perfect flight. Wayne also had a couple of very nice flights with his Aerotech Tomahawk with composite E motors. Kevin Foster meanwhile had a number of nice flights with an Estes ARV Condor. The gliders detached perfectly every time and glided down nicely. A very nice flight.

Bud came out to his first launch in some time and flew his Iris successfully twice. Bud also flew his Hercules, a two stage model, twice. The first flight with a B6/B6 combination was perfect although the upper stage landed on the other side of Collett road, just north of the launch site. On the second flight, the booster stage stayed with the model after ignition, but the rocket still flew okay, but to a lower altitude due to the Khrushnic effect. The booster stage tube was almost burned through in one area but looked repairable.

With Ferenc off at the "Wings of Eagles" airshow and John DeMar busy "networking", the most prolific flyer of the day was the Wolf family. Both Mary and Sarah flew their Baby Bottle rockets, Sarah flying hers twice. Sarah also flew her small crayon rocket with an E25 for a spectacular boost and safe recovery. Meanwhile Mary successfully flew an egg in her Omloid using a C6-3. Mary also flew her Alpha, Athena, America, Leprachaun and Flying Elf all successfully. Her dad (Dan) got in on the act too flying his Eos on an E6, his Viper III on 3 D12-5s, his Mini Spoil Sport on 4 C6-5s, his Arraeux on an F25-9, his NCR Thunderbolt on an E30 and his Maxi Speed Queen on a D12-7. All flights went well except for the Eos which landed on the lumber yard building to the east. Dan recovered it easily after the launch ended. Dan also recovered one of Merrell's rockets that landed on Videk's roof as well as an unidentified nose cone with a parachute attached.

Over 60 rockets were flown at this sport launch, making it one of our busiest and best ever. It was good to see new faces as we head into the "big" sport launch next month in Geneseo. ➢

My First NARAM

By John Viggiano

Although I attended a national event this past February in Phoenix, NARAM-35 was my first NARAM. I have been asked by the editor to help share this experience with readers of the *UR*.

This also marked the end of my first full year of competition. In past years, I had participated in at most one contest, with NYSPACE '92 being only my second. I suppose this year I entered the ranks of aspiring Jedi Knights, so I'll invoke a line from Ovid's *Ars Amatoria:* "Forsitan et nostrum nomem miscebitur istis." Something for Jedi aspirants to keep in mind: "Perhaps too my name will be joined to theirs."

Great Expectations

It was the best of times. It was the worst of times. (Okay, I learned the trick about covering all the bases like that from a chap from that "other" Rochester.) There were several things I had been looking forward to, especially after having heard about NARAM from so many people.

First of all, there were may people I was looking forward to meeting, and some old friends I wanted to see again. There are several people I keep in contact with over Usenet, and I wanted to meet as many as I could. Then there was the opportunity for fellowship with the other MARS members who went. The social aspect is what I was looking forward to the most, and I was not disappointed.

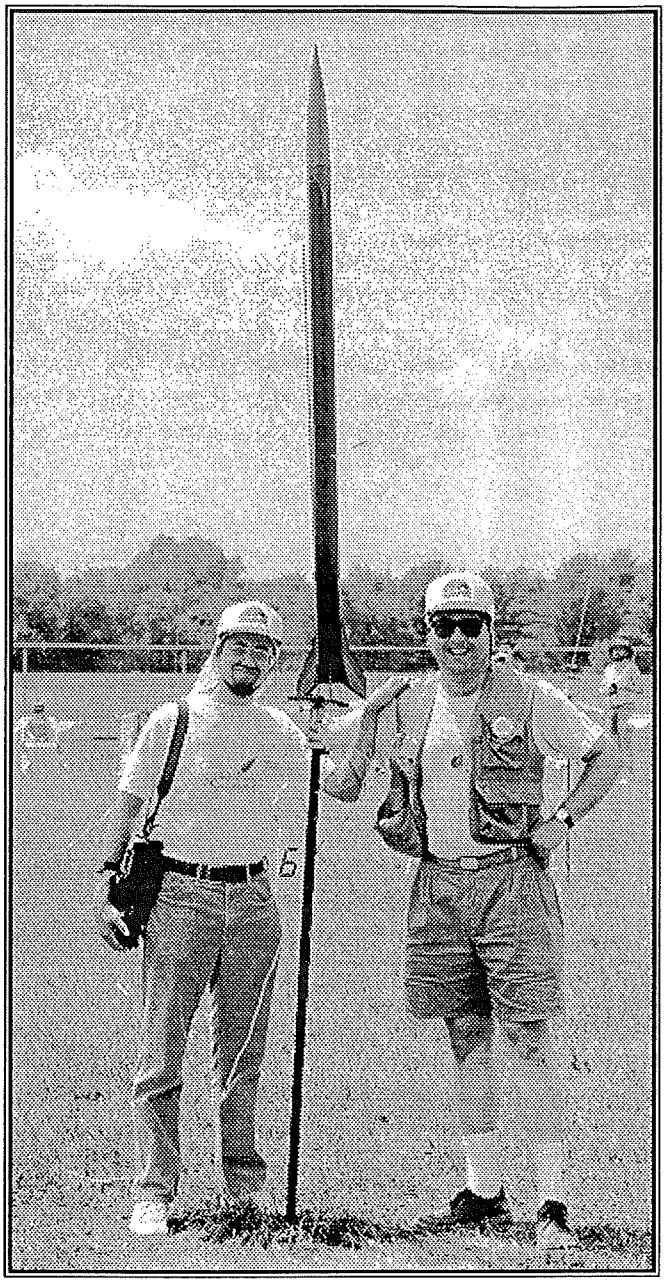
Of course, what would NARAM be without rockets? I had brought along some sport birds, to say nothing of lots of competition stuff, some of which had actually been built. (Would that Swift R/G work better now that I had raised the pod 4 millimeters?)

Weather-wise, I knew that things might go awry. Flying ECRM-XX (Part Un) was enough to clue me in on this score. Of course, I knew also that Mr. Murphy always works best with a large audience. . . .

There was one expectation that was sadly unfulfilled. For better or worse, we have been conditioned to purchase our high power engines and reloads only at high power meets. I've been wanting some 38mm hardware, and have been looking forward to my first flight with an I for quite some time. Although there were several distributors within a reasonable drive, none of them saw fit to attend, so the range store cupboards were bare in this department.

Getting Ready

I put most of my pre-NARAM time into two events: Sport Scale and Research and Development. Together with D-Dual Eggloft and R/G, they comprised NARAM's complement of double-digit weighting factor events. For Sport Scale I was busily building away at a Trailblazer I, a sounding rocket with an Honest John first stage and a Nike second stage. From the beltline down it resembles a Javelin,



Bob Sanford poses with John and his Stretch Initiator. John felt the ability to get together with other rocketry friends was NARAM's best feature. Photo by John DeMar. ➢

but it's a little different. (The MRC kit is of the later Trailblazer II, which has a Castor first stage.) I didn't get it done on time. I did get my R&D report finished; it was on a PostScript-based Computer-Assisted Design system I had put together for Gliders and shrouds. As this would help me with the remaining double-digit weighting factor events, it was especially important. Lots of work.

There were lots of things to buy, particularly engines. Particularly 1/2A3-4Ts. Two multiround events and one event that uses three engines per flight adds up to three packs, minimum, and I was down to my last. I cleaned out two hobby stores (Edmund's and Dan's had one pack each), and my appetite was unsated. Luckily, Dan Wolf was able to locate some, and he offered to sell me a pack or two.

Of course, I put the "NAR Member" decal in my car window, and other important things like that, even though, as it turned out, I left my car at home and drove down with Ferenc Róka. Bathing suit, sunburn lotion, sunglasses, and other necessities were carefully packed away the night before. I even had some dental work done before leaving.

The Trip Down

The accompanying illustration shows some of the highlights of our trip down (left side) and back home again (right side). Having the company of Ferenc, the Wolfs and the Ryans made the trip much more enjoyable.

Early Sunday morning the MARS contingent, save John DeMar who was traveling from Syracuse, showed up at my house, and we loaded up. We were finally on our way! We selected channel 35 for the CB, and used various handles ("Methane 2 to Methane 1!"). We also had code names for the roads. Route 15, which runs from Rochester to Frederick and beyond, was Mount Hope Avenue. The roughly east-west main stem through Frederick, US 40, was known as Jefferson Road, while 40A, which branched off from 40, became Townline Road. We weren't going to tip our hands if we could help it.

Lunch was at a fast-food establishment roughly half way down, and while the kids were getting freshened up Ferenc resumed painting his unfinished V-2 sport scale bird. Fine, thinks I, if Ferenc can paint his rocket, I can get in some kite flying, right there in the parking lot.

The directions given last autumn in *Upstate Rocketeer* were right on the mark. "Just get on Route 15 and keep driving until you get there." Our Holiday was adjacent to 15. Unfortunately, although everyone had their eyes peeled, we didn't see the huge wooden hog sign I had spotted on the way home from ECRM. I was trying to determine whether it was of a Hampshire or a Poland-China, as I didn't get a great look at it the first time. . . .

Arrival

We arrived about 5:30 Sunday evening, and there was plenty to do. Registration, Sport Scale and R&D turn-in, purchases to be made at the range store, people to see, the Contestant's meeting, the AmSpam get-together, and supper made for a busy evening. In addition, Chris Tavares, for whom I'm doing a little volunteer work, needed to speak with me.

Tom Lyon, the NARAM CD, explained ground rules, the range setup, and our environs. "Fredneck" is the nickname for Frederick, we were told, and Tom gave us instructions on how to fit in. "Everyone here is named Bo, Billybob, or Bubba," he told us. I gave my cap a 30° twist and locked it down, as any good Fredneck would.

Except for some lucky stiffs (one of whom went on to win the meet), we received an hour and three-quarters of

range duty each day. I was assigned to be LCO at the contest range.

Contest Flying: Duration

Monday and Tuesday were duration flying days. I haven't had any luck yet building a helicopter model, so I had only 1/2A Parachute Duration (multi-round) to fly on Monday. One model was vellum, and the other good old BT5. The Vellum worked pretty well (once I was able to keep the nose cone from separating), so I used it for two of the three flights. I used an Apogee 18 inch quarter mil mylar chute with reasonable results.

Dan Wolf was kind enough to help me get my first flight off when he saw I was kind of nervous. I missed a max by only 19 seconds, and everything worked okay. My first NARAM was actually underway!

That first flight wound up in the corn field, which wasn't good, so the others were aimed in another direction. I wound up with some scratches on my calves from the mowed weeds, which were sharp.

Tuesday was busier. 1/2 Streamer Duration (multi-round) is to me a more interesting event than PD. So interesting, in fact, that I didn't qualify on any of my three flights. Separation, no deployment, and even a kicked engine stood between me and a qualified flight. I did better in Rocket Glide. Despite my difficulties earlier in the year, I turned in two pretty decent flights in Swift (B) R/G, using the one model I had just built and test flown the week before. A raised pod helped keep the boost nice and straight, and the glide wasn't bad. The first flight wound up outside the park, on the other side of Coblenz Road. I had a line on it, though, and just walked to it. More cuts and scrapes, but the 1:55 flight was worth it.

My second flight in R/G was only 9 seconds off this mark. Again, I just started walking towards my model and picked it up. With the place all to ourselves, Middletown Park is a field of national quality. Picking up the model, I saw just how lucky I had been – the engine hadn't been taped in! I had used pinholes in the Apogee PT18 to help strengthen the joint between it and the pylon, and these helped hold the engine in. Still, I'm sure luck played a major role in the engine staying in, so I'm going to be more careful next time!

Vince Sempronio and his crew of computer dudes (official NARAM patois) did an excellent job of keeping us up to date on the standings. Results were posted periodically.

Contest Flying: Altitude

Long check-in lines. Ghastly delays. Nothing moving, or so it seemed. This summed up most of Wednesday, our first day of altitude flying. On top of this, the computer at data reduction picked this time to be in a snit, which didn't speed things along at all. As if this wasn't enough, the two portable willies were getting pretty ripe.

When we broke for lunch (which had been delayed), I was fifth in the pad assignment line for my first flight of the day, in 3 Engine 1/2A Cluster Altitude. During the lunch break, I prepped my micro (A) payloader, so I could wait on both lines. This was important, as my duty was still coming up. I didn't light the center engine in Cluster. I didn't ask for it to be an unofficial flight because I figured I'd be lucky to get even one more flight in. I didn't do too badly in Payload, improving on my ECRM altitude by 20 meters or so, but still not quite competitive. My bird was launched in a gust of wind, and I felt I could get a better boost in calmer air, particularly if I used a piston.

During my shift as LCO, the clouds let loose with cats, dogs, assorted barnyard animals, and probably a few other things, to boot. (Imagine if Randall Redd had been there!) With plenty of warning, I covered up the gear at my station and turned the power off. Tom Lyon checked the weather report, and wisely decided to cancel the remaining hour or so of flying for the day. Instead, we'd move D-Dual Eggloft Duration to Friday, and dedicate Thursday to Altitude flying. We voted to allow each contestant one qualified flight in SuperRoc to insure there was plenty of time.

On Thursday, things went beautifully (aside from the donnikers, which John DeMar reported as being filled to the brim – ugh!). Ed Pearson helped out with communications, and flights went off at a much faster rate. After my early duty, I was able to get in another flight in Payload, my SuperRoc flight, two more "not-all-the-engines-ignited" flights in Cluster, and (ta-da!) an official flight. I had given up on trying to get the thermalite to ignite the core engine, so I had to concede some altitude to those who were able to air start. Dan Wolf had his rocket all set to go before his range duty shift began, so I flew his for him, too. His thermalite didn't ignite the core, either. As we both used tissue wads to hold the thermalite in the nozzle, I suspect this was the problem.

Allowing a contestant an unlimited number of flights like this doesn't seem the correct way to go. The spirit of the event is to build clustering skills, and that's not going to happen if poor clustering skills are not penalized. A flight in which all engines do not ignite should be counted as an official flight. Whether such a flight should draw a DQ or just the altitude penalty from a less than full impulse is something we can argue about later. Please, let's just decide first to stop rewarding bad clustering skills (like mine).

Just before making my final contest flight of the day I went to visit Dan at one of the three tracking stations and give him the bad news about his Cluster flight. I also dropped by Ferenc, who was at another station. In command of that station was General Terry Lee, who took one look at me and handed me the sunburn lotion. "The back of your hand is all red. . . . You missed the back of your leg, too. . . ." While his concern was appreciated, I felt I had to put him at ease. "That's not sunburn, General!" I assured him. "That's tracking powder." Ferenc and Ed LaCroix, who was also at this station, thought that was worth a chuckle, though Ed tried to sell me on a cocoon-like get-up.

Sport Flying:

Middletown Park also proved to be a great field for sport flying. I wish I had more time and bigger engines to take advantage of this great opportunity. CMASS had their setup there, with everything from 1/8 inch to 3/4 inch rods.

On Tuesday I managed to squeeze in a sport flight. My hardened Firehawk-MP was launched from the Sport Range on a D12-7. The short shock cord gave up the ghost, and I wound up with a separation. (My separation problems weren't limited to Streamer Duration.) The bottom part tumbled down just outside the rangehead area, while the nose and parachute landed on the other side of the stream. A kid on a bike picked it up and took off. Later, Chris Tavares told me his wife had seen some kids playing with what looked like my nose cone and parachute. The next morning, I went there, saw it on the ground, told the kids I'd need it back, and picked it up. I suppose they'd grown tired of it.

Thursday I flew my Stretch Initiator. Bob Sanford, who originally designed the Initiator, posed with me any my rocket. He also captured the launch on video, while John DeMar got it on stills. Apparently, Rocketflight makes two types of F50-5s; one is certified and the other isn't. Guess which one yours truly had? Chris, J. Pat, and the other officials understood this ambiguity, and forgave my transgression. Yes, Obi-wan, the lure of the Dark Side Of The Force is strong, but it's hard for an aspiring Jedi to tell when he's being tempted!

In spite of the engine mix-up, it was yet another nice flight on that rocket. That was all the Sport Flying I could do at NARAM, though, because it rained and rained on Friday. The ranges were closed.

Road Trip: Washington

We decided to head down to Washington on Friday, as it was about the same distance as Hagerstown, and possibly a little more interesting. The parking was a bear, though, and being disposed to looking at it from the Mall side, rather than the Constitution Avenue side, I was looking for the Museum of Natural History on the wrong side of the street. After a half hour of city driving without a map, we headed to the Washington Monument to park, then walked two "Indiana Blocks" to the museum. (Dan isn't the only one who knows how those roads are laid out in Indiana. "Let's see – at this corner is Eight Mile Road, so the next block will be Nine Mile Road. . . .")

Ferenc and I could only take so much of the big bones, especially when the National Air and Space Museum was just a half-klick away. So we headed there, and were the first MARS members to ignore those overrated brothers from Dayton and acknowledge the true inventors of the Airplane: The Boland Brothers. We got lots of pictures of the Juno I, Aerobee-150, Scout, and V-2 on display there. After a brief visit to Flak Bait, a B-26, it was time to catch a cab and collect the other drivers. After another wrong turn (What! You mean US 50 and the George aren't the same road?) we wound up in the infamous DC rush hour, which lasts half the day. We did make it back in time to change our socks before the banquet.

The Banquet

The NARAM Awards Banquet was the climax of the week. Who would be the champions? Who would win the meet? How had I done in R&D? Would there be any last minute surprises?

It was also a great opportunity to relax, socialize, and have a good meal. There was a huge buffet set up, and lots of trophies and prizes for later. Once again, Tom Lyon and his NARHAMS team came through superbly. The only problem was the room itself — long and narrow, the way a rocket ought to be. We were sitting at the opposite side of the room from all those prizes, and that didn't seem right!

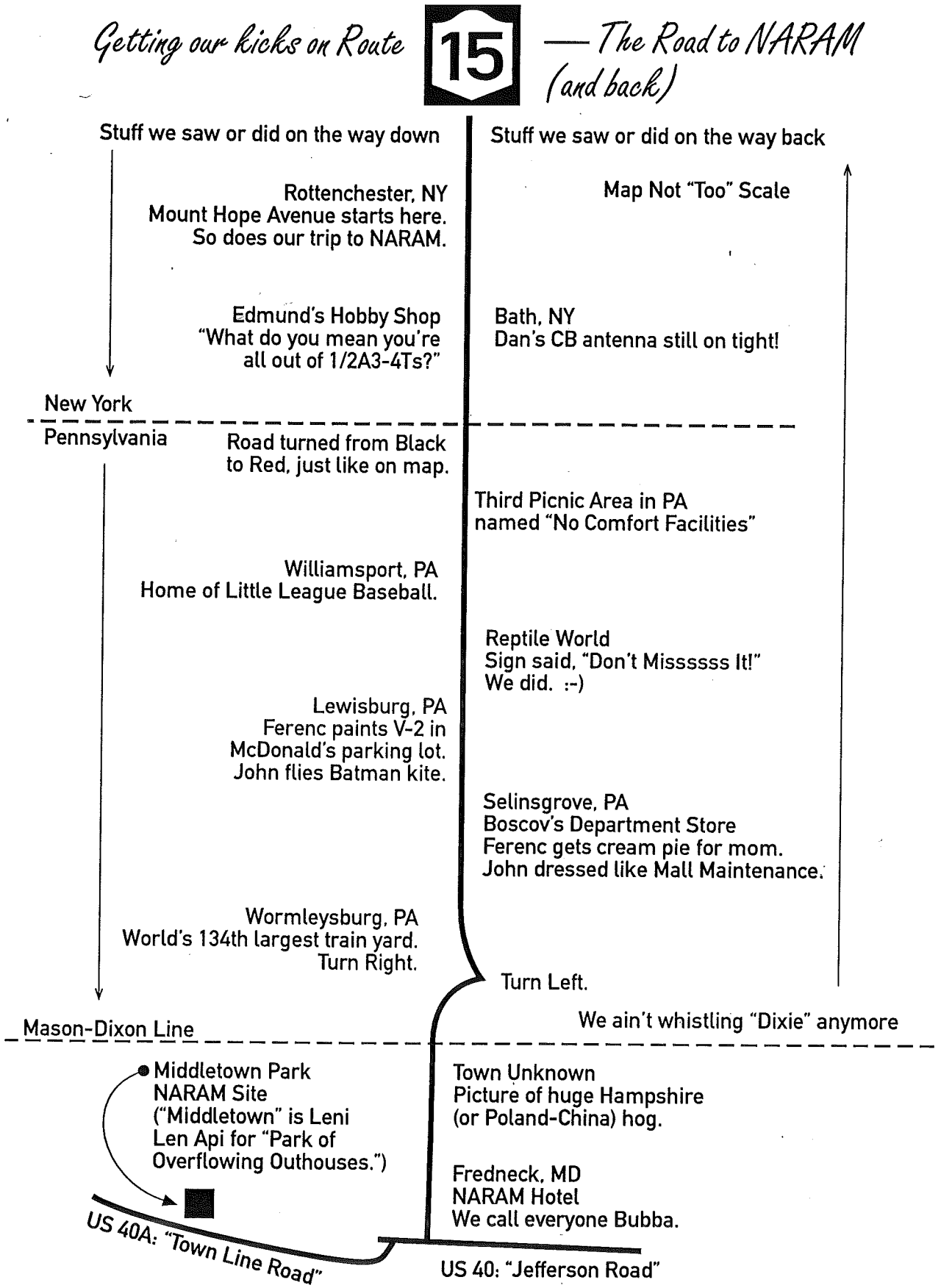
There was a couple of last-minute protests. One addressed a controversy that continues as this goes to press. Because the day's flying had been canceled, no flights were made in Sport Scale or D Dual Eggloft. Apparently, Tom Lyon had spoken with Matt Steele on the telephone, and indicated that he was going to award the trophies for Sport Scale on the basis of (and in recognition of) the static scores, but award no NAR contest points. Matt suggested that the NAR points be awarded anyway, even though there is not (nor ought there be) a provision anywhere in the Pink Book for such an action. Matt's call is perplexing; one would expect a National Contest Board Director to have better understanding of the spirit and letter of the rules. Reasoning that Matt had already ruled, which would effectively render moot any decision to the contrary, the Contest Jury reluctantly (I've been told) overruled the protest.

Aside from this blot on the evening, we had an enjoyable time. John DeMar needed all the room in his camper to take home all the trophies he won, and he got plenty of exercise walking from our table to the podium over and over again. I placed fourth in R&D, and was congratulated by several big shots of the hobby, including J. Pat, Bill Stine, and Vern Estes, who had a very nice and encouraging remark. It was worth the price of the trip for that moment alone!

Ferenc had brought a bottle of Bully Hill Space Shuttle White, and wanted to present it to Tom Lyon in recognition of a great job as CD. Dan had heard that Tom had gotten a kick out of a reference to the "Methane Men from MARS" in his writeup on ECRM. So we voted unanimously to make Tom an honorary Methane Man, and got some time at the end of the ceremony to do this.

Later, Dan and I went to Denny's one last time for a late night snack and a post-mortem, with a special emphasis on the protest issue. With a member of our club winning the meet in C Division, we saw some advantages in the "Shootout at NARAM" proposal that would base the championships solely on the performance at NARAM. However, with two of the highest weighting-factor events rained out,

(text continued on page 18)


Getting our kicks on Route 15 — The Road to NARAM (and back)
Stuff we saw or did on the way down
Stuff we saw or did on the way back
Map Not "Too" Scale
Rottenchester, NY
Mount Hope Avenue starts here.
So does our trip to NARAM.
Edmund's Hobby Shop
"What do you mean you're all out of 1/2A3-4Ts?"
Bath, NY
Dan's CB antenna still on tight!
New York
Pennsylvania
Road turned from Black to Red, just like on map.
Third Picnic Area in PA named "No Comfort Facilities"
Williamsport, PA
Home of Little League Baseball.
Reptile World
Sign said, "Don't Mississss It!"
We did. :-)
Lewisburg, PA
Ferenc paints V-2 in McDonald's parking lot.
John flies Batman kite.
Selinsgrove, PA
Boscov's Department Store
Ferenc gets cream pie for mom.
John dressed like Mall Maintenance.
Wormleysburg, PA
World's 134th largest train yard.
Turn Right.
Turn Left.
We ain't whistling "Dixie" anymore
Mason-Dixon Line
Middletown Park
NARAM Site
("Middletown" is Leni Len Api for "Park of Overflowing Outhouses.")
Town Unknown
Picture of huge Hampshire (or Poland-China) hog.
Fredneck, MD
NARAM Hotel
We call everyone Bubba.
US 40A: "Town Line Road"
US 40: "Jefferson Road"

the current approach which allows accumulation of points throughout the contest year has its advantages, too.

NARAM, Adieu!

Alas, it was time to bid farewell to our friends from other places (and that great Middletown Park, full willies and all). Our alarm clock didn't go off, so Ferenc and I were wakened by Jeff Ryan, who had generously retrieved my lawn chair from the park.

We had an interesting trip home, including a stop for a cream pie for Ferenc's mom. I was dressed like a Mall Maintenance man, so we didn't have any trouble . . . .

Hats off to Tom Lyon, Ed Pearson, Vince Sempronio, Bill Spadafora, Chris Tavares, and all the other people who worked so hard to make my first NARAM so much fun. It was thoroughly enjoyable to be with so many friends, and foremost among these my fellow MARS members and their families. ➢

As the Rocketry World Turns...

(news and rumors heard 'round the hobby)

Manufacturers News... Estes and Aerotech have both announced price increases effective Sept. first. Look for Estes prices to go up 6 to 8 percent across the board. Prices on Aerotech class C expendables increased from one dollar to three dollars. Class C reloads were also up one to two dollars. Kit prices went up to from three dollars to ten dollars depending on the kit. Class B reloads also were affected with I reloads up ten dollars. Doug Pratt has come out with a new item in his line of Nomex materials. HeatShield wadding, a reusable wadding comes in two sizes. The small size is a triangle of Nomex that you tie to the shock cord of your model rocket and put it in the model before the parachute, just like regular wadding. Doug reports that he used it in a Quest Space Clipper twice with no heat damage to the plastic chute. For larger rockets Doug has a large HeatShield that is a 16 inch diameter circle (one of his 16 inch chutes sans shroud lines?) with a Kevlar loop sewn on. Doug says to just slide the loop down the shock cord and that this size works well in body tubes from two inches to six inches in diameter. For more information, write Pratt Hobbies, 2598 John Milton Drive, Herndon, VA 22071.

Additional news about AeroTech. AeroTech has apparently announced that they have withdrawn their reloadable engines from NAR Standards and Testing and will try to have them certified "with an alternate independent testing organization." In a related move, Gary Rosenfeld has resigned as a NAR Trustee. This is all related to the failure of the reloadable motors to pass the NAR S&T certification which is basically the NFPA 1122 standards. The only motor to receive certification was the G12P reload used in the Phoenix R/C Rocket Glider kit. It is not certain why the other motors failed to pass but rumors and speculation have centered on inaccurate delay times and large variations in thrust for reloads that use nozzles multiple times (the 18mm B & C reloads).

NAR News... In NAR Competition News, the Emergency Rules Committee has brought back "B"division. Rule 8.2 of the Pink Book should now read as follows:

A Division	7 through 13 years old
B Division	14 through 18 years old
C Division	19 and older
T Division	All registered teams

A committee is also being formed to examine the possibility of changing the NAR competition from an age division system to a system based on skill level/experience level of the modelers. If you are interested in working on this effort contact Bob Hart or Mark Johnson.

Finally, the Emergency Rules Committee denied the request to lower the number of weighting factors per meet.

No official word has been given on the location and dates for NARAM 36. It has been learned however that three NAR sections in Texas are involved in the Houston bid (NHRC, Challenger, and DARS). According to Ed Tindell, the bid includes holding NARAM two weeks earlier than normal, during Spaceweek in July. This corresponds with the 25th anniversary of the Apollo 11 moon landing and the Johnson Space Center should be an interesting place to be that week.

Tripoli News... Results of the Tripoli board elections are in. Chuck Rogers remains as the board President. Bruce Kelly retained his seat on the board. New board members are Bill Maness, Dick Embry and Scott Bartel. Bill Wood was removed from the board by the membership at LDRS. Also, John Cato is the new Motor Testing and Listing Chairman and Bruce Lee is the new Tripoli Report Editor. Art Markowitz and Bruce Kelly are the Tripoli Handbook committee co chairmen. On the motor testing front, testing of motors is to begin Real Soon Now in Florida with hopefully all of the back logged motors being tested. On a related note, October 1st is now the cutoff date for flying of uncertified motors. After that date, no uncertified motors will be allowed to be flown at Tripoli sanctioned launches. Should be interesting with the Danville and Culpeper launches coming up.

LDRS News...LDRS XII was also flown in August at Argonia, Kansas. Lots of interesting flights as usual. More and more people are flying high power and more and more people are moving up in motor size, rocket size, and altitude. The big flights this year included John Baumfalk's full scale Patriot again. This year it was flown with am M, 7 K1100s and some Silverstreaks but the results were the same as last year. The rocket separated at ejection with the tail section free falling. Dennis LaMothe of "Down Right Ignorant" fame flew a full scale Aerobee 150 that weighed

over 400 pounds with an O and four Ks. Apparently the ejection timer failed to work and the Aerobee augured in hard. The rocket was completely destroyed. Finally, Dr. Frank Kosdon flew a minimum diameter all metal rocket with an O10000 motor for to an altitude of 35000 feet. This rocket had recovery failure too and was never found. Can't wait for the LDRS XIII video tape.

FAI Flyoffs... August was also the month of the flyoffs to select the United States Internats team. The flyoffs were held at AMA headquarters in Muncie, IN. Even though the NAR no longer is involved in this program the team selected consists mainly of NAR members and veteran FAI flyers. The team members are (via the unofficial results posted by David "Ducky" Klouser on Modelnet):

S3A (PD) 1 Phil Barnes
2 Dave O'Bryan
3 George Gassaway
4 Ducky (alternate)
All four maxed four rounds (4,5,6 and 7 minutes) and ended in an unlimited final round.

S4B (BG)1 Phil Barnes (maxed all 3 rounds - 3,4, 5 minutes)
2 Ken Mizoi (2:30 1st round, max 2nd and 3rd)
3 Dave O'Bryan (2:13 1st round, max 2nd and 3rd)
4 Ducky (alternate, 2:10 1st round,max 2nd and 3rd)

S6A (SD) 1 Ross Hironaka
2 Ducky
3 Dave O'Bryan
4 Phil Barnes (alternate)

S8E (RC RG) 1 Ben Roberto
2 George Riebesahl
3 Kevin McKiou
4 George Gassaway (alternate)
These four maxed the first four rounds. The final standing was determined in the unlimited flyoff round.

S1A (altitude) Phil Barnes, Dave O'Bryan and ??
Scale Altitude Dr .Bob Kruetz, Dr . Bob Biedron,
Tim Van Milligan
ScaleGeorge Gassaway, Jay Marsh ➢

Book Review

Rockets of the World, by Peter Alway
Review by John Viggiano

Nearly yesterday, it seems, a scale model rocket aficionado named Peter Alway published a book with the lofty title, *Scale Model Rocketry: A Guide for the Historian-Craftsman.* One hundred sixty pages long, it presented scale data for dozens of rocket prototypes. Sounding rockets and manned space boosters were covered. Along with dimensioned drawings and photographs of each type of rocket came a narrative, describing the role played by that vehicle, in a style that gave each rocket a character all its own. In the manner of art imitating life, these stories often captured the drama that surrounds a rocket mission.

The book was a sellout, and Peter has a new book in production as we go to press with this edition of *UR. Rockets of the World* is a book that rocket enthusiasts won't want to miss. It's more than a revision of his first book. Expanded coverage is given to some of the entries in the earlier work (such as my favorite, the Trailblazer I), while new vehicles, many from other countries, were added. The French Diamant series is quite beautiful, and the narrative on the Japanese Lambda was riviting. For the truly ambitious, scale data for both shuttles – US and Energiya / Barun – are there.

Peter's emphasis continues to be on sounding rockets and space boosters. Fin-guided sounding rockets, he points out, are good for modeling purposes; they're more practical to model. One of his priorities was to provide coverage of most rockets which are / were commercially available as kits, where practicality is very important. Quite a few are covered, from the Aerobee (offered by Model Missiles in 1958), to the Pegasus (offered by North Coast in 1992). The ubiquitous "Rubber Tomahawks" (IQSY, D-Region, and Sandia) are there, too.

An index is provided; it was one feature conspicuous by its absence in the earlier book. There's a Table of Contents at the beginning. The rockets are arranged by country, and chronologically within each country. Peter has also made it easier for modelers to locate the same documents he used in assembling the book. When known, the NASA numbers of photographs are given, allowing modelers to order copies for their scale data packs and getting the paint just the right shade.

Some of the features of the earlier work are absent. These include some of the front matter on planning, construction, and finishing, and the plans in the back for constructing models of selected vehicles whose data appear in the main body of the book. (The distinction between scale data and plan, from a scale modeler's point of view, is thus: Scale Data describe the prototype, while a Plan describes your scale model.) Peter is currently working on yet another book, this one filled with plans. Word has it they will include not only Estes and other manufacturer's part numbers, but also specifications for inexpensive custom-turned parts from Balsa Machining Service.

Available in wire-bound ($28.00) or deluxe Smyth-sewn hardbound ($35.00) editions, *Rockets of the World* is an indispensable, comprehensive, and entertaining authority for rocket enthusiasts. I highly recommend it.

Rockets of the World *is available from Peter Alway, P.O. Box 3709, Ann Arbor, MI 48106-3709. For domestic postage and handling, please add $2.50 first copy, $2.00 subsequent copies.* ➢

Sport Plan

BUCK ROGERS

REG. U.S. PAT. OFF.

IN THE 25TH. CENTURY

Ready, Solar Scouts? It's time for Buck Rogers to do combat with that deadly villain from Mars, Commodore Pounce! When we last looked in on the valiant Buck Rogers, he was guarding Dr. Huer's Uranium mines on the Moon. Buck, Huer, and Buck's old ex-space pirate friend, Barney, were repairing Dr. Huer's battered ship for the fight. Miss Fortune christened the craft "Pounce's H_2O-Loo," comparing Buck's short, cocky opponent to a short, cocky figure from history.

Here's a dandy sport plan based on this ship from the 1946 "Battle on the Moon" series in the Buck Rogers comics. Drawn by Doug Yeager, these beautiful comics were more "modern" looking than the daily strip (where the rocket ships had a rococo appearance), and were the epitome of Science Fantasy illustration.

The original was bashed from an Alpha kit I received in conjunction with a school program I was running. I didn't want to build another Alpha, so I came up with this and the opponent ship, the Octo-Jet, which will be featured in the next issue. If you're not kit bashing, use an Estes PNC-50KA and a 195 mm (7.6") piece of BT-50. You'll also need a 140mm (5.5") piece of BT-5, an engine block for 13mm engines, a CR-2050 centering ring, and 2 CR-1324 centering rings from Apogee (or from the Estes multi-purpose set).

The cockpit canopy should be copied onto bristol or other heavy paper. Cut on the solid lines and curves; fold on the dotted. It is easier to fold with the marks on the inside of the canopy. You may wish to score before folding, though mine did not require this. The shroud can be constructed of the same material. Cut it out, draw it across the edge of your workbench to curve it, and clamp it with clothespins while the glue dries.

Carefully glue the CR2050 to a CR-1324. This will provide a solid support for the shroud. Install an engine block 40mm (1.6") from the aft end of the BT-5 engine mount tube. Make a mark 96 mm (3.78") from the aft end of this tube. Glue the centering ring assembly over this mark, with the CR-2050 at the front, and the other ring flush with the front of the tube. Glue the shroud to the tube and aft ring. Be careful to keep the surface of the ring clean of glue so it will slide easily into the BT-50.

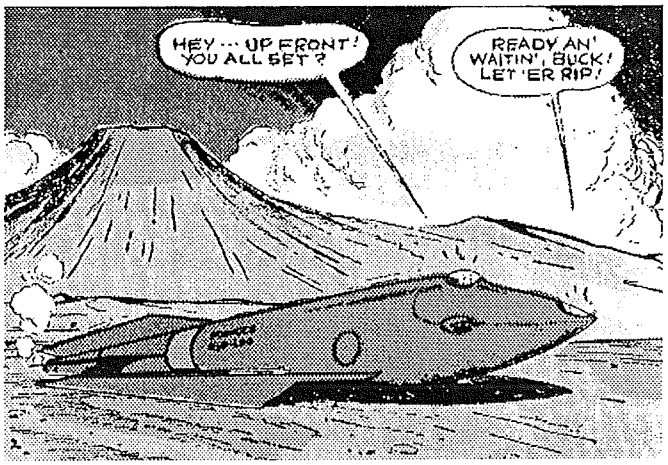
There are five fins, which is a little unusual. The fins come in two different flavors, which is perhaps even more unusual, but essential to the Buck Rogers motive. The two on the bottom, which I call "Ventral Fins," are longer and have strakes. The remaining three are referred to as "Dorsal Fins," even though I suppose only one of them is actually a true dorsal. Cut them out from 2mm (3/32") balsa or 1.5mm (1/16") basswood or ply. Ply is probably your best bet because of the high sweepback. Mind the point at which each fin crosses the tube / transition joint while cutting.

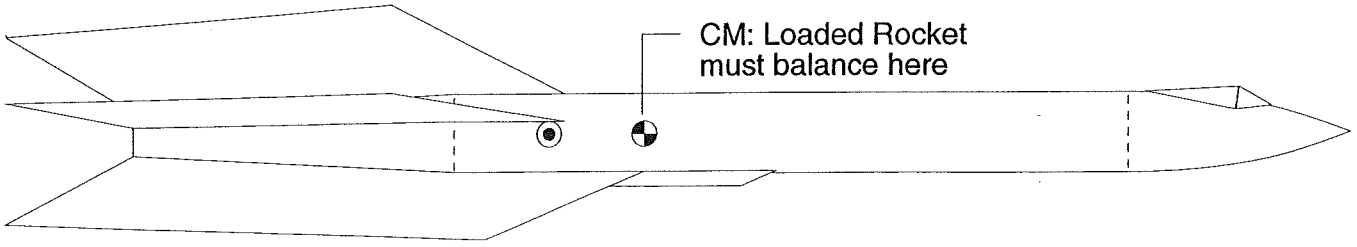
While the fins are long, they have little span, and their normal lift coefficients are small. As a result, the CP is further forward than you might otherwise expect. Pay careful attention to the Center of Mass, as shown on the diagram below. Your rocket must balance at or in front of this point with a new engine and the recovery system installed. I had to add some nose weight.

The original was Peacock Blue (Cyan). A Red band went around the rocket, starting at the leading edge of the dorsal fins, and running forward nearly to the leading edge of the ventral fins. There was a second cockpit, which was flush with the body, at the very tip of the nose. This was where the two Martian agents, Dual and Namtac, who had summoned Pounce, had a "ringside seat for the battle they promoted," as Buck put it. Of course, the name of the ship appears on the side in proud letters: "POUNCE's H_2O-LOO". Fly it with an A3-4T.

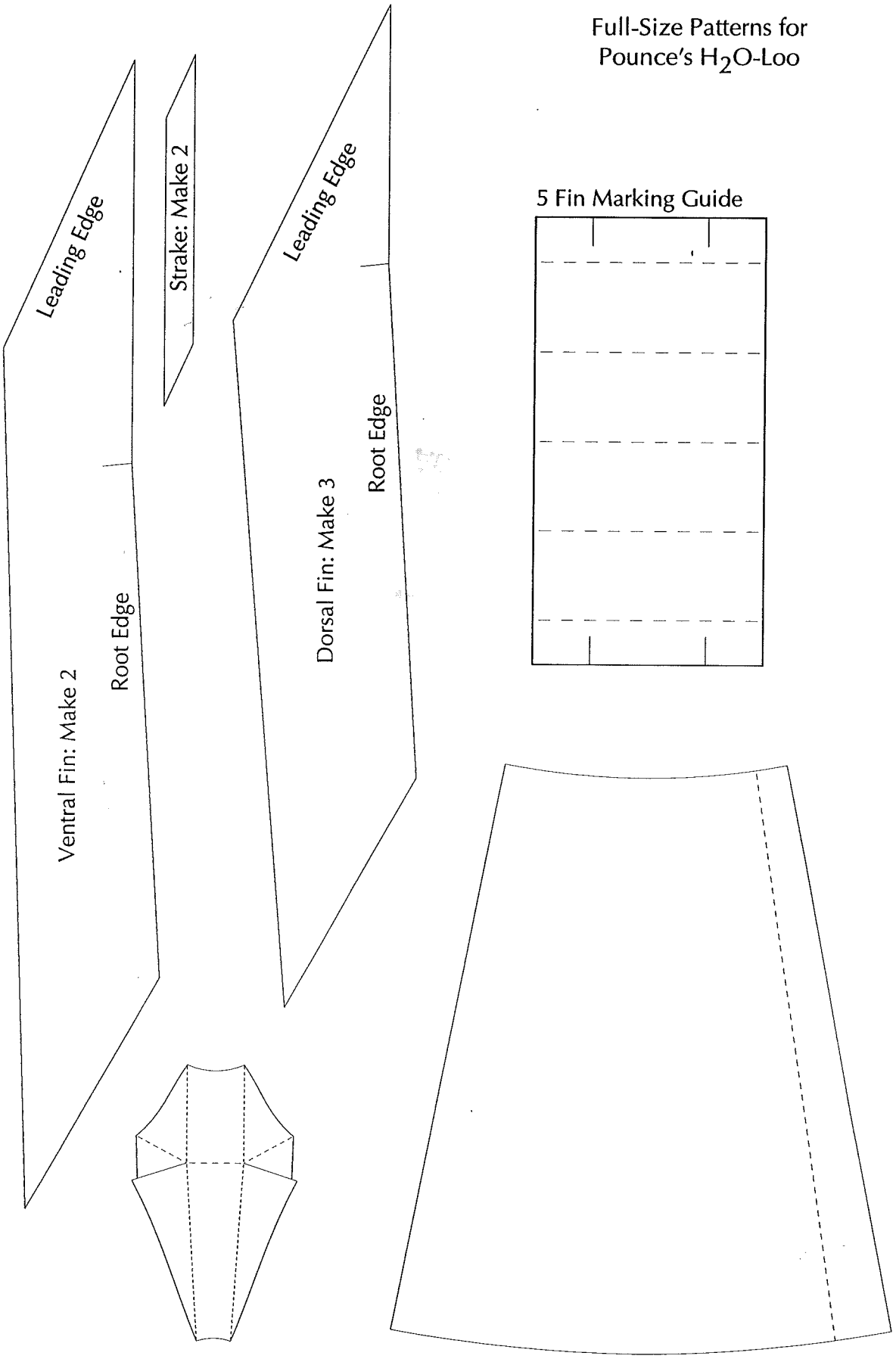
Have fun with Pounce's H_2O-Loo, and fly it high!

John Viggiano ➢





Full-Size Patterns for Pounce's H_2O-Loo



Upstate Rocketry Calendar of Events

Rocketry related events in the Upstate New York area, or of interest to rocket enthusiasts of this area, are listed below.

September 14th, MARS Club Meeting, 7:00 PM
Regular club meeting.
Note: New meeting night, 2nd Tuesday.
Contact: Dan Wolf 458-3848 or John Viggiano 359-3869.

September 19th, NYPOWER I, Waivered Sport Launch
Sport launch for area rocket flyers. A waiver has been applied for (expected to be at least 5000 feet/3.3 lbs.).
Location: National War Plane Museum, Geneseo, NY
Contact: Jay King 288-5945 or John Viggiano 359-3869

October 2nd, Club Building Session
Time and location TBD

October 8th, MARS Club Meeting, 7:00 PM
Regular club meeting.
Contact: Dan Wolf 458-3848 or John Viggiano 359-3869.

October 9-10, PARASHOOT II (Rain date Oct. 23-24)
Events: A Boost/Glide, 1/2A Rocket/Glide, 1/4A SuperRoc Duration, D Helicopter Duration, C Eggloft Duration, A Parachute Duration, 1/4A Streamer Duration. Hatfield, PA
Contact: Steve Decker, 410 W. Palmer Ave. Morrisville, PA 19067

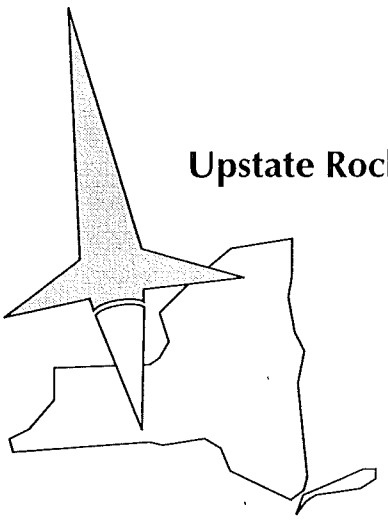
October 16-17, Finger Lakes Fall Classic III, Open Meet.
Location: Videk, Farmington, NY
Events: 1/2A Boost/Glide, 1/2A SuperRoc Altitude, B Eggloft Altitude, A Helicopter Duration, Sport Scale.
Contact: John Viggiano 359-3869

MARS Meetings are normally held the 2nd Tuesday of the month at 7:00 PM at RIT Research Corporation, 75 Highpower Road, Henrietta.

MARS Sport Launches are normally on the 3rd Sunday of the month at 2:00 PM at Videk. Located in Farmington, NY at Rt. 332 & Collett Rd, 1/4 mile south of Thruway exit 44.

☞ NOTE NEW MEETING NIGHT AND TIME EFFECTIVE IMMEDIATELY

Upsate Rocketeer
c/o Dan Wolf
235 Kislingbury Street
Rochester, NY 14613



Upstate Rocketeer