

STARDUST

September-October 1999

My NARAM-41 Story

by Peter Alway

This flatlander was utterly disoriented rolling into the NARAM-41 hotel. This 3-dimensional driving does not come naturally to a midwestern boy, especially at night. But pulling into the hotel, all the familiar faces were there. After settling in, I spotted Jennifer Ash-Poole painting a model in the courtyard. There was a motion in the bushes. Three rabbits ran from the courtyard. In the year of the rabbit, this had to be a good omen.

The next morning, followed my brother's car through the green mountains—a pleasant drive, if a little hairy for a Michigander. The park launch site was a pastoral scene—all the birds, trees, butterflies and scenic vistas a guy could want. And again, a couple hundred feet before the launch site, a little *Sylvilagus floridanus* nibbling on grass and watching the cars go by.

Four more lucky rabbit's feet.

My car was packed with three new products this year. I had just gotten the Third Edition of *Rockets of the World* three weeks earlier, and then spent the next two weeks putting together a 14-rocket supplement to *Rockets of the World*. I had set aside the last week before NARAM for building, but I was in compulsive publishing mode, and before I knew it, I was deep into putting together *Peter's Little Book of Goofy Rocket Plans*. This NARAM would be devoted to selling stuff, in hopes I could pay my printing bill.

The first two days were the sport launch. Vendor's row was off away from the sport range and the parking lot, with no shade. I didn't have a tent, so I set up under a tree. I started by flying my Zvezdotchka anti-carrot rocket on A8-3. My rabbit

rocket took off spinning, and recovered safely, to the amusement of many. It's an eye-catching little design, simple to make from Big Bertha parts. With plans in T minus 5 and my little book of goofy rocket plans, I wonder if anyone's going to build it.

I recall Saturday night was the "Old Rocketeers' Reunion." Those of us with NAR numbers under 45000 rated preferential seating. Oddly, my big brother, Bob, who taught me how to make rockets, had to sit in the back, as he joined the NAR years after I had joined, quit, and rejoined. Vern Estes and a bunch of others told us tales of the old days. Vern described the first model rocket he saw as one of G. Harry Stine's models. Stine was talking Vern into building an automated engine-making machine (Mabel). Vern tried to out-do Stine's model with a really slick job with metal fins. With all the weight at the rear, the thing went unstable and sent Mr. Estes running. That inspired the first Estes technical report, TR-1, on stability. When asked if there was anything he would have done differently, he responded "Not sold the company." The audience applauded that one.

Sunday, I happened to park next to Bill Stine. He showed me some Micro-Maxx sport models he had built. One was a little lander design built around a styrofoam fishing bobber. Bill is a heck of a craftsman. He told the story of how the Micro-Maxx

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Editor's Thermal

Wrapping up for winter



OK, as promised, here's Peter Alway's NARAM coverage. Almost like being there, minus the rocket exhaust fumes and rabbit droppings. Another feature is the survey of local rocketry sources by Eric Schadow and Wolf von Kiparski—thanks, guys!

Also, we have the results for the two late summer/early fall meets. The Plastic Fantastic meet didn't quite go off as planned. We had great weather, but a lack of participation led us to cancel the meet (only four flyers showed up for the launch, and just two of them were entering PMC). Quite disappointing.

We've got one last sport launch scheduled for October 30th, I hope you can come out and take advantage of it. It will be a looong time before the next launch next spring. With the weather closing in, folks will be turning to other activities. I'll probably be focusing on the slot cars like I did last winter. One thing that this means is that newsletter submissions from our members (like Eric & Wolf's article) will be needed all the more.

ASTRE is starting to look at planning its winter and spring activities. Maybe we'll hold some workshops over the winter if folks are interested. Next year's NAR National Sport Launch will be hosted in Geneseo over Memorial Day weekend. A great opportunity to attend a national level event in our "backyard". Our contest flyers are also looking forward to another road trip to RAMTEC in June. Amidst those events, we'll probably come up with a couple local meets and sport launches.

— Jeff Vincent

Well, at least they both have wings...

What I was flying last week



What I might be flying in a few weeks



(Continued from page 1)

rockets came to be unstable. It seems that all had been carefully CAD-designed, with center of gravity carefully controlled. But the test shots came back from Asia and they were all wrong. The mold engineers had thickened up the fins and other rear parts. The result was marginally stable rockets. Toy Biz would not allow a fix—they went to market as they were.

The vendors were better placed on Sunday. I shared a table with Blackhawk R&D and sold a few books. In the evening were the classic and fantasy rocket contests. I thought my Mars Lander had a chance in classic, until I saw a superbly finished 1/70 Saturn IB. The old models were a joy to behold. I added my childhood Astron Sprite to the lineup when I found multiple entries were allowed. The fantasy rockets were pretty neat—futuristic designs, Wiley Coyote caught in a stovepipe bound for Mars, and Bart Simpson on a rocket sled. There was even a Bender, the robot from Futurama.

Monday was for C Payload Altitude and A Helicopter Multi-Round Duration. The night before, at the contestant's meeting, Chad Ring was going on about how the standard meet payloads (19 mm x 70 mm) were longer than the old Apogee payloads (19 mm x 63 mm) and that people with short payload sections would have to modify their models. I confess I pantomimed bashing my head against my chair (to the amusement of a few) and walked out of the room, as my patience for Pink Book law has diminished (I get my fill of argument online). Back at the room, I discovered my Atlas-Agena's payload space was indeed 63 mm long, so I had to borrow a Dremel tool from Jim Fackert to make some room. I was about to concede that maybe Chad had a point bringing it up, until I saw on the field that the thing needed a new shock cord and I had to fly my backup model anyway. I hacked a hole in the back of my BT-60 GIRD 09's nosecone, and I had an instant C payload. The flight was a blast, even if the altitude was a dead last but finished 117 meters. I tried it again, on the principle that I do my sport flying on the contest range, and hit 135 meters.

For helicopter, I stuck an A3-4T into my BT-20 Black Brant VB. I replaced the nosecone with a Turbocopter cone, and launched. Worked OK, and qualified. Better than John Viggiano and his nephew, who managed to shoot their marginally stable helicopter model into the side of the returns trailer.

Tuesday was devoted to B Rocket Glide and 1/2A Superroc Altitude. The prettiest models in the glide

event were a design by Rob Edmonds. I didn't catch the name, but these bird-winged models covered the sky in graceful arcs. I don't know if Edmonds models are really the way to win trophies, but they *are* the way to get your money's worth out of a rocket engine.

I flew my desperation model—My EAC Hyperion. Without an engine, this 3-foot-long BT-50 model recovers in a backwards glide. Cheesy, but qualified. Maybe next year I'll do an R&D on the phenomenon. Unfortunately, the glide took my model straight into a tree. But as a public park, the trees are spaced apart, and nice and grassy underneath. The Good, the Bad, and the Ugly were kind enough to lend me their tree-reaching pole (a fishing pole stripped of fishing gear), and with a little help from another contestant, I was able to free the model before the rains hit.

While it rained, I took advantage of the park pavilion the host section, Pittsburgh Space Command, had reserved. The picnic tables were perfect prep tables, and I was able to install a new shock cord in my Raven so it could make my 1/2A Superroc flight. It was a BT-20 model, just over the minimum allowed length, so I was not competitive. It was still a nice flight, and with a tracked altitude, I was dead last but finished.

My life strategy is to do my sport flying on the contest range. The Moose and Squirrel Team (Rick Gaff and Mark Bundick) took up this philosophy by flying a couple sport models for 1/2A Superroc. They flew their flights in immediate sequence. Moose hardly took off before crashing, while Squirrel took off and barely ejected before a safe landing. The sprinkles were ending, so I was inspired to try my small Saturn IB as I had at Custer Buster this spring. The IB ejected in time, but the parachute didn't quite deploy before it hit hard. It broke three fins on landing, but since every fin had already broken off at least once before, this was hardly tragic.

Back at the hotel, HUVARS hosted the unofficial courtyard barbecue. We were interrupted by a little rain shower, but when a rainbow broke out, we figured it was worth it. The auction followed, with a load of catalogs and a couple Coldpower kits as highlights. High bids also went to pre-Estes Model Missiles rocket engines.

Wednesday was A Streamer duration and 1/2A Flexie. I picked out a couple little scale models for this when I packed Friday, but by this time, I had trouble remembering who was for what. My first streamer model was the OSOAVIAKHIM R-06. This little silver

model had such big, swept fins that I expected it to fall sideways under its little crepe streamer. It did just that, but hit so hard it snapped a 1/32" plywood fin. I followed it with my 1/80 scale Little Joe 1. The thing disappeared off the pad, and bonked down unharmed under its tiny crepe streamer.

Flexie was my biggest challenge. I had a competitive mylar flexie in my box, and with a little elastic, I was able to compensate for its bunged-up metal spring. But my biggest booster on the field was my BT-20 Raven, and no matter how I packed it, it was disconcertingly tight. I took it to the pad anyway, and sure enough, the glider refused to eject, and the model core-sampled. I dumped it into the trash and tried for plan B.

After an hour of shock cord repair and origami, My Atlas-Agena was ready to boost a butterfly-sized paper airplane. I consulted with the RSO to be sure it would be allowed as a flexie, and with the timers, so they know the tiny orange thing was the glider, and loaded into a pad. The 1/2A engine pop-gunned the BT-60 model into the sky, and the nose blew at apogee. The glider flew out, and settled into a perfect circling glide. The time was bad, but the flight was cute.

Wednesday night, my big panic was the manufacturer's forum. I had noticed lots of interested customers promising to get up to my room to buy in previous years, so this time, I just set up a store for after the talks. Doug Pratt spoke just before me, and as he finished, he noted his catalog was online only, declaring "Print is Dead." So I guess I spoke from the land of the dead. But I made some bucks. Enough for a nice, if not complete, payment to my printer.

Thursday was the designated easy-going day, with B Eggloft Duration only. My Nike-Yolk (a Nike-Smoke build around an Apogee egg cone) flew as it should. No special time, but a safe flight. While I was under the pavilion prepping some sport models, I heard something about Bob Kaplow's launch. I walked out of the pavilion and saw a model hanging from a huge mylar chute, maybe 50 feet in the air. It seemed magically suspended, as if a sky deity were fishing for birds. "That's Kaplow's model," Ryan Coleman informed me. "Didn't you see it launch?" "Nine minutes" a timer said.

I first met Bob Kaplow at an early HUVARS MSC^2 event at Jackson. He was showing off his fine B egglofter, made with a rolled 1/32" balsa conical tube, doped and tissueed for the optimum strength and

minimum weight. The nose was a precious Kuhn egg capsule. If the sky were your arm, Bob's B engine had barely managed a subcutaneous injection into the atmosphere in that Jackson launch, but he had injected it into the center of a convection cell, and the thermal lifted it higher, as the wind carried off to distant woods. I was in awe of the flight, but Bob was not amused.

"Eleven minutes."

This model was not drifting away. Briefly it came towards us. It even dropped for a moment. I decided to follow the model. It would only be a few hundred feet away. I crossed the parking lot, through the stand of trees full of singing birds and buzzing cicadas, and on to the next field. A figure lay in the grass, hands behind head, watching this unintended hot air balloon. It was Trip Barber. Trip is the most ramrod-vertical man I know, standing at naval-pride attention even when playing with toy rockets, so it was a bit of a shock to see him reclined in the grass amongst the birds and butterflies and the sunshine, where the rabbits had frolicked a few hours earlier.

We watched the floating model, talked about birds catching thermals and reminding us of rockets, and rockets catching thermals and reminding us of birds, and how another modeler put a glider into a thermal, and said "I've made a bird." Then the thermal picked up strength, and the model began to rise, rise, rise. A couple RC R/Gs flew out toward the model, but they didn't have the depth perception to actually approach it.

"He's not getting that back," Trip offered. I agreed and returned to the range. The timers lost track after 31 minutes. Since I met him, Mr. Kaplow has come to value a good story over a good model, but he was still checking the lost-and-found box repeatedly, on the off chance that someone stumbled across his model.

I learned later that the first place flight in Eggloft was Jim Quin's. It's always a pleasure to see a club-mate do well.

After popping off a few sport models into the air, I headed back to the hotel to judge Sport Scale. I had finished the Similarity of Outline section of B division, but I pretty much had to do the lot in 5 hours. The obvious winner in B division was Rachel Brower's Soyuz. Her previous year's Vostok was mind boggling, and her Soyuz was a showpiece as well. There were some problems, however, and as I studied the youth models I came to understand something of the nature of

youth rocketry.

As a rule, A divisioners can't muster the resources to attend NARAM. So those who make it are almost always brought along by modeling fathers. The fathers have a clear sense of what makes a good model, and make essential resources available. With guidance, spray paint, a family lathe, and access to after-market vendors, an A division modeler is limited only by his or her skill. I found two A division models I'd be happy to fly at a regional—Ellis Langford's Javelin, and Dawn Wilfong's Saturn I. I saw four models I could see myself building and flying for fun. Another half dozen looked like kids made them.

After looking up close at the Javelin and Saturn, I was ready to run screaming out of the judging room. They each showed excellence in different areas, and pretty-goodness in others. I just hunkered down category by category, and was going to ask one of the other judges to insure I wasn't being biased toward Dawn's model—a member of my section building my favorite subject. When I did the math at the end, it turned out Dawn and Ellis were tied. I'd let them fly it off.

B division modelers, on the other hand are on their own, groping in the dark for the ways to better models. They are resourceful—they managed to reach NARAM in spite of their parents, and inventive. But often they re-invent the wheel. Mostly, they don't have mature guidance in the construction phase, and devote time to making their models incredible in one aspect, and tragically flawed in another.

They will find their way in time, but their models are oddly uneven. A perfectly proportioned model (Ryan Coleman's Aeolus) might have globs of sealer under the paint, a perfectly finished model (Pierre Miller's Mercury-Atlas) may have a bizarrely misshapen nose cone, and an incredibly challenging, detailed, well-proportioned model (Rachel Brower's Soyuz) may have horrible self-adhesive decal film showing.

These B division modelers are a neat bunch of people. I had the pleasure of hanging out with some of them in the hotel lobby a couple of evenings. I hope they stay in the hobby for many years to come. I managed to finish judging just in time for the official barbecue, and then I rushed back to the hotel for R&D. This year, I did "Scale Bash," including lots of spreadsheets for Barrowman calculations to make it look scientific. The fact that I presented meant that I was in line for a place in the event, but the judges were mum about which place.

I think there were meetings and stuff after that, but I was pretty much bushed.

Friday morning I had to be at the range at 8:00 to judge youth scale flights. Bob Kaplow pointed out it was Friday the 13th, and since I didn't see any wild lagomorphs, I figured I should fly Zvezdotchka for spot landing for luck. I didn't place in Spot, but I was ready for the judging grind.

Ellis Langford flew his Javelin single-stage to an assured first place. He even did a simulated Barium cloud release for 5 bonus mission points. Dawn flew her Saturn I on a D12-5. The boost was perfect. It ejected at apogee. The parachute was stuck. It hurtled straight down toward Range Safety Officer inside the ring of launch pads. A sickening WHUMP. "You just have some building to do" her dad, Roger, assured her. She and her amigas, the Bundick Twins, would see this model fly right!

Grace Wilfong told me how her daughter had been so impressed by Rachel Brower's Vostok the previous year. Rachel won first in scale in B division in a hard-won victory following two crashes, one caused by a cato. Dawn wanted to do something just like her. But she didn't mean to be *this* much like her.

An hour or two later, the repairs were done. NARAM contestants from around the country had scoured the area of the crash and found every piece. Aside from the accorded transition, the model didn't really look so horrible. The RSO counted down, and **BANG!** The composite D catoed. A bit too much like Rachel Brower indeed. Fortunately the damage was minor, and Dawn was soon ready for a third flight.

This time, the boost was perfect, and the recovery deployment was perfect. Dawn Wilfong and the Bunny Twins let out shrieks of joy and ran like the wind that carried the model down the field. The model landed short of the trees, with just five points worth of new damage. Dawn's second place was assured.

B division had me nervous. Rachel Brower was an obvious first with her Soyuz, but she had a history of disastrous flights. Her model took off straight, ejected apogee, and two perfect 'chutes blossomed for the body and nose. I don't know if there was cheering and applause, but there should have been.

Did I mention the wind? Did I mention the trees? Within

seconds, a sinking feeling hit us all. She was going to lose the model in the trees.

It took an hour of poking and prodding and whacking, but Rachel and friends recovered the model, less a few detail parts. She only lost a few points for actual flight damage, but another problem loomed.

I'd been chatting with Ryan Coleman quite a bit this year, so I was rooting for him to do well. But after static judging, Ryan was within 95 points of Rachel. This wouldn't matter, if it weren't for the fact that Ryan's Aeolus was a 2-stage model with a seven-engine cluster in the booster. My own judging guide would give over 150 mission points for this flight. I was not looking forward to this.

Ryan loaded his model, with a tangle of wires hanging off its ass end, onto the rod. He asked for heads-up, lest the sharp basswood nosecone skewer a contestant. At liftoff, I noted a wide brush of flame coming from the rear of the model, but I couldn't count the bristles. In fact, only five engines lit. The core, which would light the upper stage, was not one of them. The model arced over, and deployed the booster parachutes. In the act, it set the sustainer free to dart into the ground within the circle of pads. THUD. Rachel's first place was safe for now.

Ryan repaired and remodeled. He returned to the pad for a single-engine flight that qualified him for 4th place.

Team division promised spectacle, but delivered only half. John Pursley's horizon-guided, 2-stage Vanguard never made it to the pad, so George Gassaway's entry had to fill the void. For half an hour George and teammates prepped while a crowd gathered.

Flight one: the nose blows off during ascent, then the SRB's. The orbiter is stuck to the tank. The whole mess of parts shower to the ground. The parachuteless nosecone justified the DQ. Much to the astonishment of all, the model was back in flying condition well before the range closed. The model actually looked nice from a safe launch distance. This time all went in the correct sequence. A big composite in the ET fired, then the SRB's fell away, and the orbiter separated. George brought in the glider under radio control of a safe landing on the grass. His first place was assured.

I was glued to the contest range for the duration of flying, so I missed what must have been Rob Edmonds's grand entrance on the sport range. And I missed what

must have been a crowd of photographers gathered around, and a lot of "Ooh, he's gonna fly this next." But I did hear the roar of a big composite, and I turned around expecting to see another three-fins-and-a-nosecone disappearing from sight.

It was this big, looming, sun-blotting, slow-creeping, canard rocket-glider. It looked like a scale-up of an Edmonds design, and I had heard Rob hint at something big. The thing looked like a high-performance rocketship, but it seemed to fly more like the Goodyear blimp. Rob piloted around a bit by RC until gravity won the war and brought it down. There was applause.

It was reputed to have a wingspan of 6 feet, and considerably more length. I never got to see it up close.

The field of C division models was impressive, and I could see that my old Black Brant IX would be a ways down in the list. I had been telling Mark Chrumka that his Aerobee 150A would certainly win a trophy at NARAM if he'd just go. The inscrutable Mr. Chrumka didn't let on, but I'm sure he was quite pleased to take first in static judging, especially after the sacrifice of scale profile he made to hold a D12-0 in his booster. Roger Wilfong was second in static with his peanut scale Saturn I. This model had won first in C division (though C and Team were combined) at NARAM-33. Glenn Feveryear followed with the Astrobee 1500 that had taken first last year. Tom Campbell entered a 2-stage Bumper WAC for 4th. Fred Williams brought a large Vertikal 1, and tied me for 5th place.

The flying scrambled things real good. Mark Chrumka's Aerobee staged perfectly, leaving him safely in first. Roger's Saturn I flew well also, keeping second place, but not out of reach of the clustered Astrobee or the staged Bumper.

Glenn Feveryear's Astrobee was huge, and a real work of art. It roared off the pad perfectly, deployed its 'chutes, and....did I mention the wind and the trees?

The booster was unrecoverable, meaning Glen lost all damage points. Combined with the added mission points, he just maintained his third place. I guess it's time he builds the Super Chief he's been talking about.

Tom Campbell's Bumper took off on a low-impulse engine, and staged horizontally. Though representative of the prototype's flight, the RSO, viewing the upper stage nose-on, was not amused, and disqualified the flight.

I brought out the old Black Brant IX, loaded a C6-3, and sent it off on an uneventful flight. I lost five points for marred paint when the nose and booster snapped together, but otherwise the flight went fine.

Fred Williams launched his ball-nosed Vertikal 1 on a perfect boost, and...did I mention the wind and the trees? Amazingly he was able to find his badly scratched model and return it to the judge at the hotel. Damage dropped him into 5th place, just 2 points behind me (I'd have been happier with a tie).

It was a pleasure to see HUVARS pile on the trophies at the final banquet. I wound up with 3rd place in R&D. I had secretly hoped for better, but my goal was to qualify in every event and place in one, so I was really over my quota. All our section's flights—Jim Fackert's, Al de la Iglesia's, Dawn Wilfong's, Roger Wilfong's, Jim Quin's, Mark Churmka's, and mine—added up to a 4th place for HUVARS overall at NARAM. We are one cool section.

Just before the national championships are announced, Mark Bundick announces the service awards. Bunny awarded the President's Award for service to the NAR to Steve Lubliner for his work on the HPR certification program and other stuff. Then there's the Galloway Award. I remember at NARAM-35, Tom Lyon dropping my name in a list of people the NAR board considered and didn't choose, so I've always listened real hard when that part of the banquet comes along. Ever since, it's gone to someone who bailed the NAR out of a real financial fix, or a regulatory fix, or an insurance fix. Once it was Vern Estes for building the NAR's new testing stand. Another time it was G Harry Stine for a lifetime of achievement just months before he died. In other words, to deserving people for making a real difference.

Bunny has a style of starting with a generality, and slowly becoming more specific, setting off a lightbulb over another batch of heads with each sentence. But he had dropped what I suspected was a hint in the judging room on Monday when he credited me in grand words for the variety of models. I kept my mouth shut.

So I was greatly pleased to hear about this modeler who had "shed darkness into one corner of our hobby" a slip of the tongue that made an ear-to-ear grin unstoppable. When he named me, I felt like Homer Hickam winning the National Science Fair in "October Sky." The ghost of Wernher von Braun could have congratulated me and I would have lost it in the fog of the moment.

I feel like a certified cool rocket guy. I am insufferably pleased with NARAM-41.

Peter "Nerd of the Year" Alway

Manufacturer News

Aerotech for sale - Aerotech and parent company ISP (Industrial Solid Propulsion) have appeared for sale on - of all places - the Ebay online auction site. The starting bid is \$500,000 and it looks legit. If you are willing to sign non-disclosure agreements and submit proof of your resources, you too can become a player in the model rocket industry!

Rumors say that the sale is the result of the founder's divorce settlement. Apparently Gary Rosenfield's ex is insisting on a cash settlement (versus interest in the company), forcing the sale.

Quest Micro Maxx availability - I've received confirmation from the NAR Contest Board Chairman that there will be no 1/8A class events in the immediate future due to the limited availability of these motors.

On October 19, I made a call to Quest customer service. The good news is that Quest is now shipping motor packs to all customers (Toys R Us, hobby shops, and individuals, versus the TRU-exclusive initial shipments earlier this year). The bad news is that all motor shipments are back-ordered by about two months. So it may be a bit longer before you see Micro Maxx motors on the local hobby shop shelf (or on the contest range in a sanctioned NAR event).

Local Rocketry Sources

compiled by Eric Schadow
and Wolf von Kiparski

Hobby Shops

1) **JP's** - North side of Route 2 east of Latham traffic circle. Rocket heaven - tons of hobby products in stock (HO/N scale trains and military models, paints, etc.) or he will order it. Paul, the owner, is very nice. Rocket stuff for 10% off list. They also have North Coast stuff (a starter kit) and a few Aerotech motors on the shelves. Even has Estes nose cones, Quest Rockets also. Great balsa selection that is properly stacked.

2) **Chizek's** - West side of Route 30 north of Amsterdam (just past Alpin Haus). Though not big into rocketry (Estes, old Quest stuff) this shop is worth visiting. It is the only place I found locally where you can ask for "contest grade balsa" and be pointed to a stack of choice wood (or they can order it). Many local rocketeers go there for a quick fix. Elliot Van Antwerp has been frequenting Chizek's, and telling them about ASTRE.

3) **Competition Hobbies** - On Route 9 just past the Century House (going north). They carry Estes and Custom model rocket kits. Not a bad selection, about 13 or so. Engines also, a little sparse though, glues and finishing stuff. They also have RC and plastic models, mostly cars and boats, however I did see a couple of jets (Skyhawk, F-104, etc.).

4) **Mohawk Valley Railroad** - Hamburg Street, Schenectady/Rotterdam border. Small selection of Estes kits, general motor selection - list prices. Great train shop and general military/plastic model shop. Now has a discount section on second floor.

5) **Hobbytown USA** - Wolf Road, Colonie. Welcome the new kid on the block. I watched and waited for the eight or so weeks when the store was being refurbished and stocked. It was "kind of" a disappointment. What did I expect? Maybe too much for a store that had just opened and hadn't had a chance to grow and establish a customer base. It's fast and convenient for me to go there to pick up some odd item. I always see changes such as a gradually burgeoning supply of goodies, particularly plastic models.

6) **Mardel's** - Altamont Ave., Schenectady. Mainly RC and doll houses. Some Estes. Will order.

General, Non-Hobby Shops

1) **World of Science** - Crossgates and Rotterdam Square malls. General motors and some kits and RTF - Blast Off flight packs - mostly list price. Usually have a 30% off sale in first week of August or so.

2) **Walmart** - Engines at list prices. Starter kits and all RTF stuff. As of about June 1 they dropped most of the kits. Usually sold at 10 to 20% off list. Motors are list but include small pack of wadding.

3) **Kay-Bee** - Mostly starter kits and some six-packs of motors. Six-packs of A10-3T's are \$10.00 (real rip-off) at Kay-Bee on Altamont Ave. in Rotterdam. Walk across parking lot to Walmart to get two 4 packs for the same price.

4) **KMART** - Some motors at list price and RTF stuff and starter kits.

5) **Michaels** - Crossgates Commons. Small rocket selection, latest list prices (C6-7's are \$5.49). See how long they last. General craft store.

6) **Toys R Us** - Colonie and Clifton Park. The local source for Toybiz/Quest Micro Maxx stuff, soon to be replaced by JP's. They seem to be getting away from kits, and only stock RTF rockets. One nice thing is the Blastoff Pack (24 motors) I once snagged for \$10. A visit on October 7 found only a couple of RTF and \$8.99 six-pack motor kits.

7) **CTRA/NARCONN launches** - Cobleskill. They always have a dealer or two on site. Ken Allen's Performance Hobbies and the Discount Hobby Center (see ad in *Sport Rocketry*) guy from Utica are usually there. You can pick up all kinds of good stuff from these guys, and if you are into high power, DHC-Utica is an in-state high power motor dealer. The BATF doesn't require you to hold a LEUP if you purchase "low explosives" for onsite use from a dealer that resides in your home state.

8) **A.C. Moore** - Route 9, Latham. They don't sell rocketry-specific items, but this crafts store is worth a visit. Better, IMHO, than the MJDesigns/Michaels variety. Better prices, better selection. Responsible for clothing the leaders of ASTRE (three for \$10 T-shirts).

Estes Industries Rocket Plan No. 15

SPUTNIK-TOO!

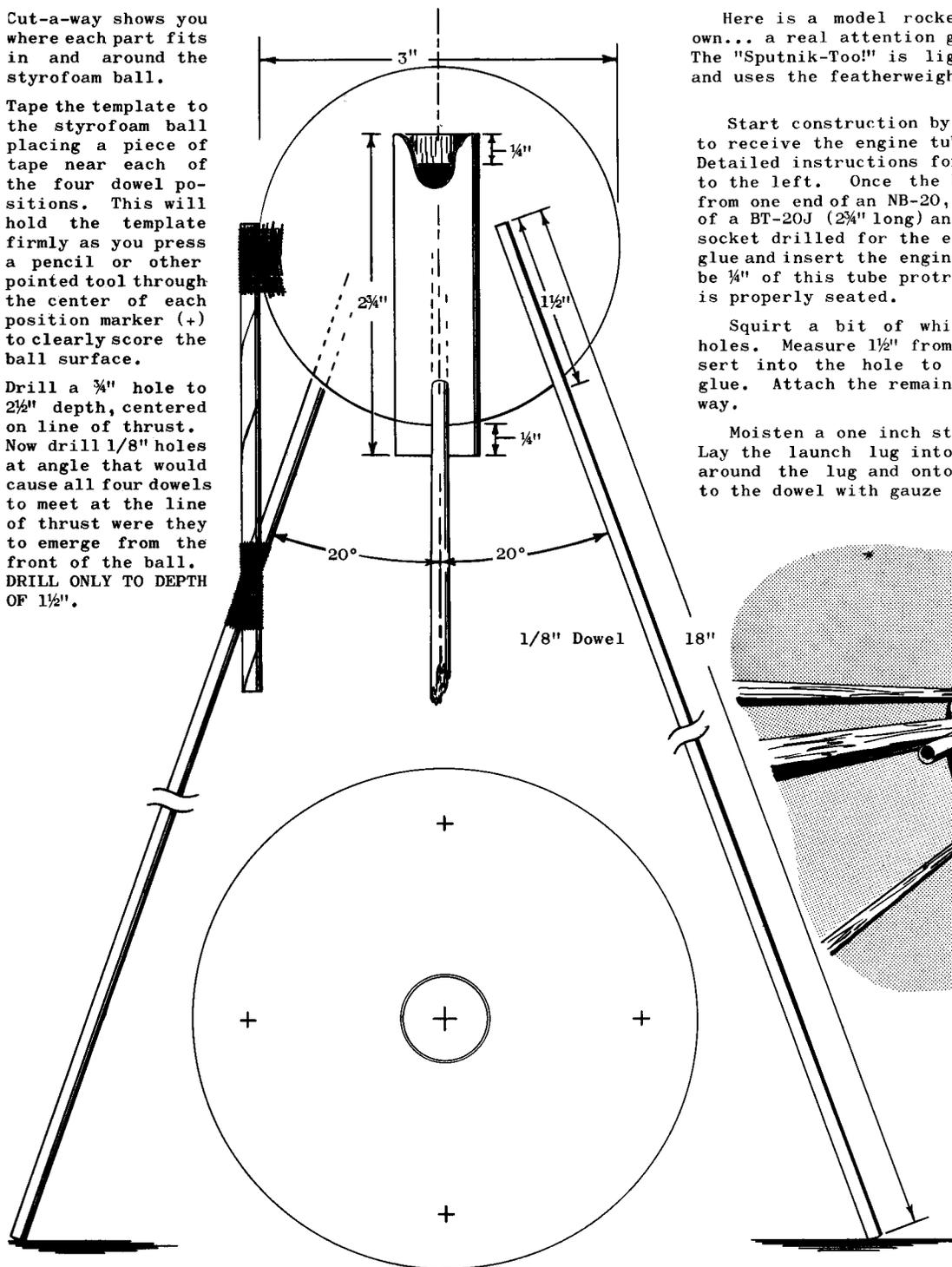
AN ODDBALL...

Published as a service to its customers by Estes Industries, Inc., Box 227, Penrose, Colo. ©Estes Industries, 1964

Cut-a-way shows you where each part fits in and around the styrofoam ball.

Tape the template to the styrofoam ball placing a piece of tape near each of the four dowel positions. This will hold the template firmly as you press a pencil or other pointed tool through the center of each position marker (+) to clearly score the ball surface.

Drill a $\frac{3}{8}$ " hole to $2\frac{1}{2}$ " depth, centered on line of thrust. Now drill $\frac{1}{8}$ " holes at angle that would cause all four dowels to meet at the line of thrust were they to emerge from the front of the ball. DRILL ONLY TO DEPTH OF $1\frac{1}{2}$ ".

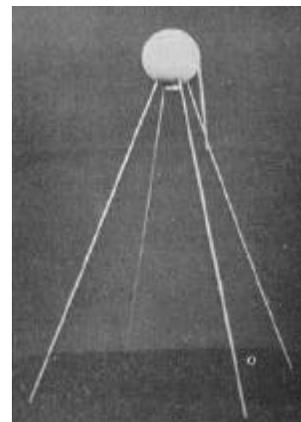
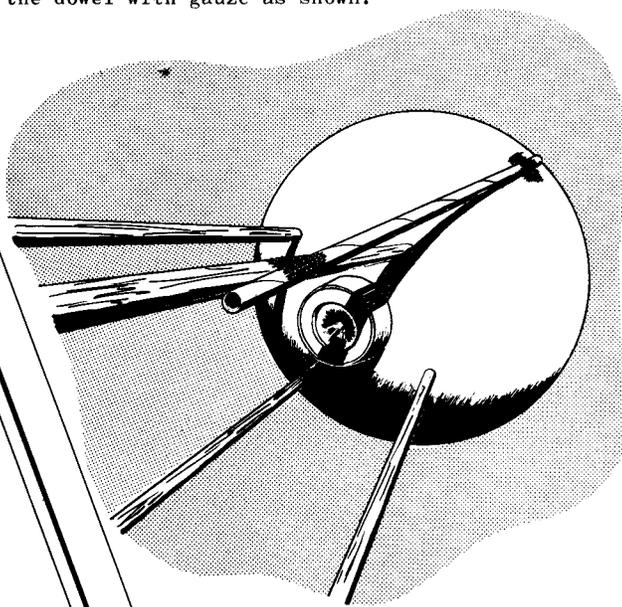


Here is a model rocket with a character all it's own... a real attention getter where ever it appears! The "Sputnik-Too!" is light in weight, easy to build and uses the featherweight recovery principle.

Start construction by preparing the styrofoam ball to receive the engine tube and dowel stabilizers. Detailed instructions for use of the template are seen to the left. Once the ball is ready, cut a $\frac{1}{4}$ " slice from one end of an NB-20, glue this slice into one end of a BT-20J ($2\frac{3}{4}$ " long) and stand aside to dry. Smear socket drilled for the engine tube with a film of white glue and insert the engine tube assembly. There should be $\frac{1}{4}$ " of this tube protruding from the ball when tube is properly seated.

Squirt a bit of white glue into one of the $\frac{1}{8}$ " holes. Measure $1\frac{1}{2}$ " from one end of the dowel and insert into the hole to this point. Wipe off excess glue. Attach the remaining three dowels in this same way.

Moisten a one inch strip of gauze with white glue. Lay the launch lug into position and form the gauze around the lug and onto the ball. Secure the other to the dowel with gauze as shown.



- 1 Styrofoam ball, 3" O.D.
- 4 Dowel, 18" x 1/8" Dia.
- 1 Body tube $2\frac{3}{4}$ " long
- 1 Nose block piece
- 1 Launching Lug, 5" long

- Part # SB-3
- " " WD-1
- " " BT-20J
- " " NB-20
- " " LL-1C

NOTE: Rather than use the 5" launching lug, you may desire to mount a short lug on the ball and another lug on the dowel. If so, use another dowel to line them up.

Kind Of Wimpy-6 Results — August 29, 1999

Results	Name	1/2A SD MR	1/2AHD	1/2ASRD	CELD
A Div.	Eades, Nicholas	12/EJ	-	1274	-
C Div.	Eades, Ed	EJ/20	-	SEP	-
	Hutchison, Heather *	7	-	-	-
	Schadow, Eric	MAX/57/MAX	-	-	62
	Vincent, Jeff	55	30/106	1300	70
	von Kiparski, Wolf	55	35	SEP/SEP	56/67

Points	Name	1/2A SD MR	1/2A HD	1/2A SRD	C ELD	Total
A Div.	Eades, Nicholas	48	0	156	0	204
C Div.	Eades, Ed	96	0	0	0	96
	Schadow, Eric	240	0	0	128	368
	Vincent, Jeff	144	380	260	320	1104
	von Kiparski, Wolf	144	228	0	192	564
Sections	Independents					300
	ASTRE, 471					2036

EJ = ejected motor DQ

MAX = 1/2A SD maximum time (60 seconds)

SEP = separation DQ

Kind Of Wimpy-5 Results — September 19, 1999

Results	Name	1/2APD MR	1/4ASD MR	1/2A B/G	SpSc
A Div.	Eades, Nicholas	9/11	DQ	-	-
C Div.	Eades, Ed	21/DQ	19	-	-
	Schadow, Eric	12/13	DQ	30/95	-
	Vincent, Jeff	MAX	DQ/14/28	56NR/DQ	575
	von Kiparski, Wolf	DQ/17	MAX/19	14	465

Points	Name	1/2APD MR	1/4ASD MR	1/2A B/G	SpSc	Total
A Div.	Eades, Nicholas	44	0	0	0	44
C Div.	Eades, Ed	88	96	0	0	184
	Schadow, Eric	132	0	340	0	472
	Vincent, Jeff	220	144	34	400	798
	von Kiparski, Wolf	22	240	204	240	706
Sections	Independents					228
	ASTRE, 471					1976

MAX = 1/2A PD maximum time (120 seconds)

1/4A SD maximum time (30 seconds)

CALENDAR						
				1	2	
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

ASTRE Calendar

CALENDAR						
				1	2	
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

ASTRE Contacts :

Wolf von Kiparski 437-9747 wolf@netheaven.com
 Jeff Vincent 439-2055 jvincent@wizvax.net
 Chuck Weiss 883-8312 cbweiss@telenet.net

How to get to Jeff's house...

Your destination is 39 Cherry Avenue in Delmar. Take Rt. 85 south/west (accessible from I-90, State Offices, Rt. 20, or Krumkill Rd.). After Rt. 85 changes from divided highway to two-way, you'll see the following landmarks (note, this is a complete list of the traffic lights you'll see):

- traffic light at Blessing Road, continue straight
- traffic light at New Scotland Road, take right to stay on Rt. 85
- traffic light at Rt. 140, take a left, follow to the end (1 mile)
- traffic light at Kenwood Avenue, go straight on to Cherry Ave.
- my house is 0.2 miles in from Kenwood Ave. It is the third house in a set of three similar houses on the right side of the street. There should be parking for 2-3 cars in the driveway, or, directly opposite my house (left side of Cherry Ave.) is Oak Street, and I believe there should be no trouble parking along the road there.

Note: ASTRE events appear in **bold type**.

For the past couple years, we have held meetings in member's

homes. The meetings are usually informal bull sessions where club business is discussed first, followed by either general "what's new," or a predetermined topic or activity. This schedule can change, and it is advisable to contact Jeff Vincent, or Wolf von Kiparski to find out about any last-minute changes.

October 30 - **Last Blast Sport Launch** - Johnstown, NY.

One last chance to fly those models before hibernating. Flying begins at 11am. Contact: Jeff Vincent or Wolf von Kiparski.

November 16 (Tuesday) - **ASTRE Meeting** - at Jeff Vincent's house, 39 Cherry Ave., Delmar, 7:00 pm.

December 11 (Saturday) - **ASTRE Meeting** - at Jeff Vincent's house, 39 Cherry Ave., Delmar, 1:00 pm.

January 15, 2000 (Saturday) - **ASTRE Meeting** - at Jeff Vincent's house, 39 Cherry Ave., Delmar, 1:00 pm.

May 27-29, 2000 - National Sport Launch 2000 - Geneseo, NY. The NAR's NSL comes back to upstate NY - a waived model rocket through high-power launch on Geneseo's 600 acre field. For more information, see NAR publications or www.nar.org

June 17-18, 2000 - RAMTEC-8 Regional meet - Center Valley, PA. Events: 1/4A PD, A B/G, 1/2A HD, C ELDur, Sport Scale. Contact: Glenn Feveryear, 717-456-5570.

July 29 - August 4, 2000 - NARAM-42 NAR Annual Meet - Canon City, CO. Contact: Ken Mizoi, 303-368-5209 or www.naram2000.org

For more NAR Northeast Region meet info, see: <http://www.wizvax.net/jvincent/nercb.html>

ASTRE Membership Application

Name _____
 Address _____
 City _____
 State _____ Zip Code _____
 Phone _____ Date of birth _____
 NAR number _____ Tripoli number _____

Membership Dues (check one):

Junior member - \$5.00
(under 18)

Senior member - \$10.00
(over 18)

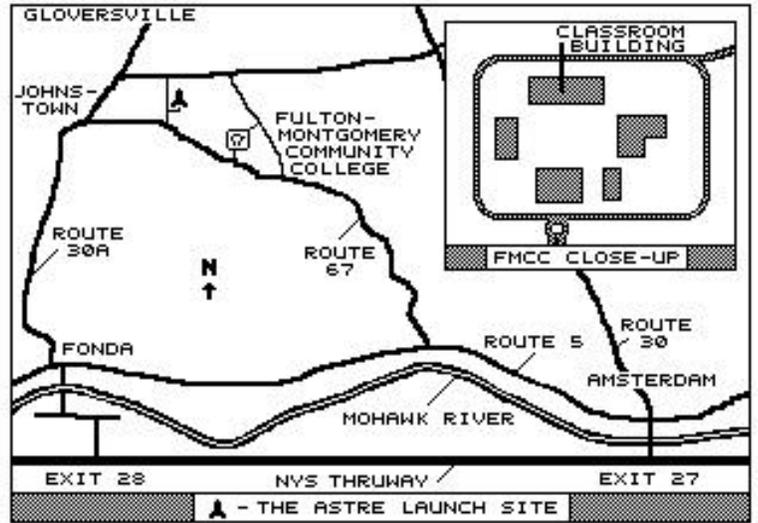
Family membership - \$15.00
Number of newsletters: _____

Send to: ASTRE
 c/o: Charles Weiss
 49 North St.
 Broadalbin, NY 12025

Please make checks payable to "ASTRE".

How To Get To The Flying Field

- From the east, take the Amsterdam exit (#27) off the Thruway
- Take a right and follow Route 30 North for one mile.
- Take a left at the second light after the bridge onto Route 5 West.
- Follow Route 5 for three miles. Take a right onto Route 67.
- Follow Route 67 for 5.5 miles. Shortly after passing FMCC, take a right onto the small road by Ed's RC shop. After one half mile you will see **JBJ Equine** on your right. Follow the driveway and park in the parking lot and walk to the range.



ASTRE's Next Launch - October 30 - Last Blast Sport Launch
ASTRE's Next Meeting - November 16 - Tuesday, 7pm at Jeff Vincent's house
In This Issue - Peter Alway's NARAM-41 report and local news

Jeff Vincent
Box 523
Slingerlands, NY 12159