



ZOG-43

JANUARY 2001

A SPACE ODYSSEY !



PHOTO: Paul Miller's "Blues Clues"

Photo By : Paul Miller

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THE ONLY NAR NEWSLETTER PUBLISHED MONTHLY !!

From the Editor:

Were now at Y2K+1 and counting. I can remember flying rockets as a young boy often daydreaming of what the future would really bring. Well I am still waiting for my flying car, personal robot and neat little gizmos ala the Jetsons. However some things have become realities to some extent. Personal telephones keep getting smaller and smaller and are starting to resemble the communicators from Star Trek. Videophones are still not readily available but are out there. The Internet has brought some amazing spectacles of sight and sound into our homes. Automobiles aren't flying yet, but have you opened the hood of a late model recently? Used to be anyone with a little bit of mechanical ability could work on their vehicle, now days, I open the hood and gawk at all the wires and parts and think to myself, not a chance! The advances in weaponry have become down right scary. Footage from the most recent skirmishes around the globe showing the "smart" bombs and guided cruise missiles with deadly accuracy from hundreds of miles away.

The satellite industry has also mushroomed into quite the business. Every other week or so, the news reports on a new satellite being launched into orbit. I know that space is a big place, but it seems to me that it has got to be getting crowded up there in geo-synchronous orbit. Yes the technology is growing by leaps and bounds, but somehow I'd hoped it would have been even faster.

As the new millennium dawns before our very eyes, hopefully within our lifetime we will see some of the technology that we've dreamed of and some we haven't dreamed of with our wildest imagination. I am sure one of these days in the not too distant future, space travel will become routine. The idea of taking an orbital trip to the other side of the world or for a visit just to see the Earth from orbit will be available to anyone who chooses to do so.

The now operational International Space Station is hopefully the first step to space and beyond. The people of the world will surely see this opportunity to nurture the furthering of our people to establish a permanent presence in the heavens.

Are you out there Hal?

Jim Filler

LAUNCH WINDOWS

NO SPORT LAUNCH

Scheduled for January.
All NARHAMS members are invited to KING ZOGS Castle for a building session to be followed by a movie session.
Bring your own chair!
Contact: Jim Filler
Jan. 13,2001 10AM-8PM
Call if you need directions 301-371-3365

SPORT LAUNCH

Middletown Park Icicle / Winter Theme
Feb. 10th 10AM - 4 PM
Contact: Jim Filler 301-371-3365
Planned Notam for up to 3.3 lb.
Limited to "G" class motors

SPORT LAUNCH

Middletown Park Odd-Roc Theme
Pot-o-Gold Spot Landing fun event
Mar. 10th 10AM - 4 PM
Contact: Jim Filler 301-371-3365
Planned Notam for up to 3.3 lb.
Limited to "G" class motors

OSTRICH-I REGIONAL MEET

Middletown Park Mar. 24th 10AM - 4 PM
Contact: Jennifer Ash-Poole
Events: OSL, C-ELD, A-SDmr, SpSc, RDD,1/2A-BG
Planned Notam for up to 3.3 lb.
Limited to "G" class motors

OPOSSUM-5 OPEN MEET

Middletown Park April 21 9AM-10PM
Will coincide with the sport/night launch
Contact: ChrisKidwell
Events are RDD, B SD, B PD, SpSc, A SRD.
Planned Notam for up to 3.3 lb.
Limited to "G" class motors

"Model" Model Rocketry

Demo's from the parking lot
By John E. McCoy Sr. NAR-15731

Here we are in the first year of the new millennium. Now would you have believed our hobby/sport would still be around and kicking. It is becoming more difficult to find and keep suitable launch fields, especially here on the East Coast. I've said for several years now our hobby is going in the wrong direction with larger/heavier models and motors in a ever shrinking real estate environment and government regulator pressure looming ever tighter.

I think I've found a great way to have fun building, flying and promoting our hobby to the public in a less than gigantic format. Last year Quest Aerospace introduced the "Micro-Maxx" series of ready to fly, tiny all plastic models and the 6mm x 25mm .20 N-sec. Micro-Maxx motors.

This started a complete rethinking of my modeling priorities. I began a quest (No pun intended) for parts and methods to convert my Micro-Maxx system to accept a wider range of size and type of Micro Models. I then began the hunt for modeling parts and supplies. Great news! We have all the stuff anyone needs to build models around the .281" O.D. / slightly over 7.1 mm Micro-Maxx bodies and models up to about 21g have been flown to date. True my 1/65th PMC Lacrosse at 17.8g only reached about 15 feet but it worked and it did deploy!

I have been working to produce a complete range of competition model rockets based on the .281" body tubes. The fleet now included designated 1/8A-1: Parachute duration model w/ 8" mylar chute & poplug. Streamer duration model w/ 2" x 24" streamer & piston launcher, 25cm SuperRoc, JellyBean "Egg" lofter, Night Flight 2000 - Led Payload model. Micro-Rose-a-roc Helicopter duration model, Micro PCS - Spot lander, 3, 4 & 8 motor Cluster Altitude models, Micro-Deltie and Ivey pop pod Boost Gliders, Micro- Nomad Rocket Glider, 90 and 110 degree Micro flexwing gliders, three tiny Scale and Sport Scale projects, Bomac, Pegasus and Arcas. a tiny flying "Scope mouthwash" bottle Odd-Roc, and a couple of Plastic Model Conversions, Lacrosse and AeroBee-Hi. I think that covers the entire gambit of NAR competition events. This set will allow me to do an entire model rocket presentation / demonstration in a parking lot setting at ANYTIME without worry about the size of the field, clearance or waivers. Most of these models have been flown at Middletown, turning in some impressive times.

As for Model - Model Rocketry I have been down sizing all of my favorite "Classic" models. This set now includes a .281" dia. Orbital Transport & gliding Orbiter, 13mm/7mm Mars Snooper, 13mm/7mm Laser-X, 10.5mm/7mm Cherokee-1/8A, 10.5mm Ram-Jet, Goblin, Der-Red-Max, X-Ray payloader and SkyDart glider, 7mm "The Point", Nova Payloader, Warp-II 2-stage, and Hercules-2 stage. I now have a 25 model fleet that should impress and interest any group, weather a static or flying demo. I have also recently completed a 6 position 36" long launch rack with controller that mounts on a camera tripod. All these gismo's give us the

ability to give a very through and interesting demonstration within the confines of very small surroundings.

Down sizing your favorite models is a little tedious and does take a bit a planning to convert tiny details to tinier parts, but it is a challenge and sure beats having to buy expensive and now harder to get, scarce parts. Another Plus for downsizing is *STORAGE*, my entire 25 model collection is housed in three 4" x 6" x 10" plastic boxes, (one is used only the PMC lacrosse on its scale duce & a half army truck launcher.) instead of the 10' x 10' x 12' shed that is crammed with my regular size models. I can't imagine where you HP guys store your rockets. I can't see any down side to Modeling Model rockets.

Here's how to get started:

- * Buy a Micro-Maxx Starter set around \$16.00 at Toys R Us. ASK about replacement motors. If we don't ask for them, They won't stock them!
- * Convert the system to 12v by adding two 2/56" x 1/2" R.H. machine screws to the contact plates and projecting them to the outside of the launcher base top. This allows you to keep the internal hand controller at 9v. Or use regular micro clips from an external 12. system to connect the machine screws to the special igniter plug-ins.
- * Convert a burnt igniter plug-in to a standard, solid wire micro-clip whip. Now you can use regular 30ga. nichrome wire as igniters.
- * Contact Totally Tubular. Buy a few 6mm, 7mm and 10.5mm body tubes. Ask around at meetings if anyone wants to go in on a tube purchase order. Bulk orders save money and shipping.
- * Buy and/or cut down some of your 1" x 1" x 12" basswood stock to 3/8" and 1/2" Squares for use in making nose cones. VHD Foam can also be used.
- * Coffee stir sticks are great as launch lugs. Sand them well before you try to CA or Epoxy them in place.
- * .030", .020" and .015" styrene is great for fins as well as .10 wafferglass and .010" calandered Lexan (Polycarbonate), 1/64th plywood, and sanded .063" (1/16") bass and balsa will also work on some of the "larger" models.
- * Use 50 to 70lb. Kevlar as your shock cords 24 to 30". No added elastic, you don't have the room.
- * If you are going to fly gliders or models larger than 5" long, buy a .041" Stainless Steel, 24" long launch rod from me. You need the extra length and Stiffness for gliders and larger models.
- * Decals can be made by Tango Papa, or myself. You can also print on special inkjet papers though I can't tell you how they will hold up.

Finally: Have some FUN. Building is what we do to get to the flying! By building Smaller, one can be challenged by the "Scale" factors and take pride in the accomplishments of converting projects

SPACE NEWS

Compiled from www.space.com

Shenzhou 2

WASHINGTON -- China has orbited its pilotess Shenzhou spaceship in a practice shakeout of hardware that will eventually carry Chinese "taikonauts" into space. The Shenzhou 2 lifted off from the South Launch Center from a newly developed rocket complex at the Jiuquan Satellite Center in Gansu province. Shenzhou rose skyward atop a Chinese Long March 2F booster. Problems in readying the space vehicle last week are reported to have delayed a January 5 liftoff.

Eurasiasat 1

The launch of the Eurasiasat 1 telecommunications satellite aboard an Ariane 4 rocket will be delayed by at least several days to permit prime contractor Alcatel Space to verify the satellite's telemetry equipment, Alcatel Space spokeswoman Sandrine Bielecki said Dec. 13. After an initial two-day delay following concerns about the Ariane 4 rocket's faring, Eurasiasat 1 had been set for launch Dec. 11 from Europe's Guiana Space Center in Kourou, French Guiana. To permit Alcatel to get at the root of the suspected problem, Arianespace ground teams have returned Eurasiasat 1 to the launch base's satellite preparation center. Bielecki said the results of the work on the satellite likely would not be known until early next week.

Eurasiasat 1, also known as Turksat 2A, is owned by Eurasiasat of Monaco, a joint-venture company owned 75 percent by Turk Telekom and 25 percent by Alcatel Space.

Meanwhile, Arianespace is preparing for its final launch of the year, on Dec. 19, when it has scheduled the launch of an Ariane 5. The heavy-lift booster will carry the Societe Europeenne des Satellites' Astra 2D direct-broadcast satellite and the Japanese government's Large-Diameter Reflector Experiment, LDREX. LDREX will deploy a scale model of a large mesh antenna to fly on Japan's ETS-8 technology demonstration satellite.

Ariane 4 and [Ariane 5](http://www.space.com/news/spaceagencies/ariane_5_000522.html) are launched from different sites at the Guiana Space Center.

Atlas 2AS

CAPE CANAVERAL, Fla. -- Blasting off with a clandestine satellite onboard, an Atlas 2AS rocket successfully ended Cape Canaveral's 2000 launch season with a light show of fire and smoke that could be seen for miles along Florida's Atlantic coast. A very public mission for the usually secretive National Reconnaissance Office (NRO) began at 9:47 p.m. Eastern Standard Time (02:47 Wednesday GMT) with the ignition of the Atlas rocket's first stage main engines and two of four solid rocket boosters.

The Lockheed Martin-built Atlas launch vehicle slowly climbed into a star-filled sky, ignited its remaining two boosters and then quickly picked up speed as the rocket turned downrange while thousands of local residents, tourists and holiday shoppers looked on.

Appearing for a short time as the brightest star in the east, the Atlas soon disappeared from view on its way to deliver the NRO-designed satellite into its intended orbit. Spacecraft separation from the Centaur upper stage occurred 29 minutes after liftoff from Launch Complex 36.

NRO officials would not comment on the Atlas' cargo, but industry observers agree the spacecraft is a sophisticated data relay communications satellite, capable of receiving and passing on signals from other NRO spy satellites in Earth orbit. Although no clever code name has surfaced for this particular payload, the spacecraft is believed to be a slimmed down version of a Satellite Data System spacecraft that was originally designed to fly -- and did -- on NASA Space Shuttles and Air Force Titan 4's. Budget conscience NRO officials now procure their launch vehicles from the commercial marketplace and have turned to International Launch Services' (ILS) family of Atlas 2 and Atlas 3 rockets to fly several missions. Tuesday's launch fulfilled the second NRO contract for ILS.

Delta 2

After a string of delays, a Delta 2 rocket successfully soared from an oceanside launch pad at Vandenberg Air Force Base on Tuesday, ferrying to orbit the NASA Earth Observing 1 and Argentine Satellite de Aplicaciones Cientificas C satellites.

The Boeing rocket lifted off with its double payload http://www.space.com/missionlaunches/missions/eo1_sat_001114.html -- a first for the launch vehicle -- at 1:24 p.m. Eastern Standard Time (18:00 GMT). The launch from Space Launch Complex 2 at the California base came during a fleeting 22-second window. The dual payloads -- plus a Swedish nanosatellite -- successfully separated from the rocket at 60, 90 and 110 minutes following launch. The two satellites lofted as the main payloads should now complement the Landsat 7 and Terra spacecraft already in orbit, flying with them in close formation as they trail one another while zipping around the globe. Indeed, from Landsat 7 to EO-1 to SAC-C and to Terra, any one member of the chain will be separated from the others by no more than 30 minutes, allowing all four to act in concert as a single virtual Earth-observing satellite.

Proton-Sirius Launch

CAPE CANAVERAL, Fla. -- Driving to work next year will become a more pleasurable experience thanks to a satellite launched from Central Asia on Thursday.

The spacecraft sent into orbit by a Russian rocket was the third of three needed by [Sirius Satellite Radio](http://space.yellowbrix.com/pages/space/coQuote.nsp?ID=space&fo und=1&scategory=Aerospace%2FDefense%3ASpace&by_name=siri) http://space.yellowbrix.com/pages/space/coQuote.nsp?ID=space&fo und=1&scategory=Aerospace%2FDefense%3ASpace&by_name=siri of New York City in order for the company to begin offering commercial-free, CD-quality radio programming to commuters and drivers across the United States next year. The first and second Sirius radio satellites were launched on Protons earlier this year and together the constellation makes it possible for a radio unit in a car or truck to receive the digital programming, no matter where you're driving in the continental U.S. When the service is declared operational, a long-haul truck driver can tune in one of 50 channels of commercial-free music -- or one of 50 channels of traditional news and entertainment programming -- and not have to touch the dial during a journey from Boston to San Diego or Minneapolis to Orlando. Rollout of service http://www.space.com/business/technology/business/sirius_business_000619.html will be gradual so that Sirius engineers can test quality and performance at every step as more and more receivers are used throughout the nation, company spokeswoman Mindy Kramer told *SPACE.com* on Thursday. The company will not release any numbers on projected sales but Kramer did say they expect the greatest volume to come later in 2001 as consumers shop during next year's holiday season.

AIAA Launch

By: Jim Berg

Our club ran the rocket launch at the American Institute of Aeronautics and Astronautics (AIAA) picnic on September 30, 2000, providing the launch equipment, performing range duties and running demonstration flights. Before our launch, the Control Line Model Aircraft group performed from 10 am till 11:30 and then allowed spectators to try their hand at control line flying. For those who didn't arrive before noon, you missed a good show. At one time they had five planes in the air, it was amazing they didn't crash into or trip over each other! They also had a four engine B-17 flying and ended their show with a dogfight.

Jennifer Ash-Poole arrived about 10:30 with the launch equipment, which she had taken home with her after the College Park demo. We were getting worried that Jim Filler was tied up and had to press Alan Holmes into performing official duties by making an executive decision as to where to set up what we had. We unloaded Jennifer's truck with the help of Allen, Kevin Johnson, Ward Poole, and Jim Berg. We were well underway at setting up the launch equipment when Jim Filler arrived with the perimeter rope and the tables for the launch controller and check-in. Set up was completed with Jim and Mike Fillers help by noon. We had a few rockets on display and Jennifer was madly prepping the power demo rockets when everyone discovered lunch was ready and went to get some. Paul Miller, Richard Hickok and Josh Russell added rockets to our static display, making an impressive display. We also had our posters: model rocket flight profile, parts of a model rocket, and model rocket engine. This was our second opportunity to use them, the first being the College Park Air Fair. Tom Bagg liked the posters so much, he asked to borrow them for his presentation to the 4th graders he is doing November 6th.

We started our demonstration with Alpha IIIs on 1/2A, A, B, and C engines. The 1/2A Alpha III flew perfectly, unfortunately the A and B engine Alpha III's had misfires. The power demonstration resumed with the C engine Alpha III, and was concluded with a 4FNC rocket with a D12 in it. All the Alpha III's were successfully recovered. The D powered rocket did end up in a tree about 15 feet off the ground, but Tom had his tree pole there and was able to get it back for us. The first rack was completed with Pauls' BroadSword for an impressive flight. The next rack of demonstration flights went off better. We had Jim Bergs' demonstration helicopter model, which deployed its blades perfectly at apogee. Jim Fillers' rocket glider, which was headed past the line of trees, but turned as Jim Berg went after it. We flew James Mehalicks' Comanche-3 with just two stages for a multistaged rocket. Thanks to Jennifers' preparation, it staged perfectly, Jim Berg reset the launch angle just prior to launch for a successful recovery on the small field. An Estes Snitch (UFO) was used to demonstrate feather weight recovery. The final rocket was Jim Fillers' Saturn V with a 2-D engine cluster, with both engines successfully igniting for a perfect flight.

Jim Filler served as RSO and Emcee for the entire launch with Jennifer doing check-in, and Ward as LCO. The rest of the crew helped in recovery of the demo rockets. After the two demo racks were launched, we opened the racks to the cub scouts and anyone else who brought a rocket to fly. Assisting the flyers with putting their rockets on the launch pad and hooking them up was Allen. We had a total of 83 flights, not counting the demonstration flights, from about 25 flyers. We had flyers from: AIAA members, Cub Scouts, Civil Air Patrol, and NARHAMS members. The most popular rocket was the Wizard on a B6-4, seems a whole Cub Scout pack had those. NARHAMS member Tom Anderson, who always seems to have a lot to fly, flew the most. It is believed only two rockets were lost, one was a multistager that drifted away, and the other was caught in a tree. Jim Berg was able to help one family retrieve the upper stage of their mongoose from a tree. It was out of reach of Tom Bagg's fiberglass pole, but we were able to get a picnic table and put a chair on top to reach the rocket. Jim Filler flew an F powered rocket and it was even recovered on the field, just over the outfield fence for a home run. We did have a some close calls, one rocket on a D managed to just miss the trees at edge of the field for recovery.

Although a small field, it was a very successful day, if we could get rid of one line of trees we would have a much bigger recovery area. The only other complaint was the bees, especially by the food, but fortunately no one got stung. For those who didn't make it I would definitely plan to make it next year, it is fun and a picnic lunch is provided so you don't have to worry about food. My wife Tracy and son Matthew enjoyed themselves too, so you can make it a family affair. A couple other NARHAMS members made it a family outing, Paul brought his wife Shirley and grandson Garrett. Alan was there with his friend, Carol Greene, and her daughter Jennifer, who flew her first rocket. They all seem to enjoy themselves, so bring your family with you for a good picnic and afternoon of flying rockets. If your kids like control line aircraft get there in the morning so they can enjoy them too.

December Sport Launch

By Carl Truszynski NAR # 74790

The weather for the December sport launch started out a bit rough as a cold blustery morning, finished up fine. Any breeze that was around in the morning eased off by noon. The rest of the afternoon was wonderful. Blue skies and calm winds. Stats for the day ended up like this: 9 flight sheets were turned in; 93 recorded flights; 97 motors used as follows:

1/4A - 2
 1/2A - 10
 A - 9
 B - 21
 C - 37
 D - 12
 E - 1
 F - 2
 G - 3

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Of the 97 motors used, we had 3 CATO's. The D booster stage of a Comanche was the first to go, quite impressive yet successful in igniting the second stage. Then there was the OY-FAT BOY! two stager. Again, it's booster stage was the culprit but it too successfully ignited the second stage. The third was the second launch of an Excocet on a G motor. Talk about impressive! Now that was a CATO to watch.

The December sport launch was billed as a "Holiday Theme Odd Roc". Well, they were out in force. Most of the candidates came from the workbench of Richard Hickok. They included the "Red Ball Express" which was a red ball shaped Xmas ornament rigged for launch. Then there was the "Fast Burnin' Menorah". It was a good replica, and stable too. The "Spirit of Xmas Present" was a favorite. As a fully wrapped Xmas gift, bow and everything, it was a sight to behold. The finale was the "Holiday Tree" all decked out with including icicles. Its first launch was spectacular, especially when it arched over, kicked the motor at ejection, and planted itself upside down lawn dart style. Damage didn't appear too bad, and everyone thought it would see yet another Holiday Theme Odd-Roc launch.

The pond at Middletown was mostly frozen over this Saturday due to the extreme cold weather the previous night. Good thing too. Two of the higher powered launches didn't fair well in that regard. A Strong-arm flown on an F25 gently settled down on the thin ice close to the quickly receding edge. Shortly after that, an Initiator joined ranks with the Strong-arm. The great thing was, the owner of the Strong-arm went back to dig his fishing gear out of the basement and returned. After rigging hook, line, and sinker, he then proceeded to exercise his casting abilities in an attempt to retrieve the ill-gotten rockets from the clutches of the cold Lake in Middletown Park. Eventually, success came through and both rockets were retrieved without much damage.

Finally, the good weather brought out any rocket gliders that happened to be on the field that day. We had 14 glider flights including a couple very memorable ones of an Estes F-22 foam brick fighter which just kept going, & going, & going!

Pink Book Online

An HTML version of the 2000 Pink Book is now available online at <http://www.narhams.org/PinkBook>

Please let me know if you see any errors or can suggest any improvements.

Webmaster Dr. Chris Kidwell

Blue's Clues Rockets to Blue Skies

Paul Miller, NAR 51615

Remember the Ole Ed Swap Meet and Garage Sale last summer? Remember Doug Pratt's basement box of freebies deposited in the corner of the meeting room? How about the mad scramble for those shortie body tubes and plastic nose cones?

Although I got to Doug's gift box well after many others, I did salvage just enough to build my grandson an exclusive Blue's Clues rocket. The best grab was an apparent Silver Comet body tube and boat tail with all four balsa fins and motor mount intact. It came with a Super Big Bertha nose cone. I also nabbed a baggy of 4/4" x 18mm body tubes and 4/18mm nose cones.

While contemplating the September Night Launch/Sport Launch, I got that (shudder) "urge to build." In a whirlwind of three days, Garrett's rocket "Blue's Clues" was ready to fly. Several days later, Blue's Clues stickers, Super Monocote, S.O.S. Sponge landing pads and Pactra Trim Tape completed the project.

Using the Silver Comet sans nose cone as the base, I added another 6" of BT-80 and substituted my last spare PNC-80K to top it off. Body fill and sand. The four 4" long-18 mm tubes were slotted to fit each balsa Silver Comet fin. The tubes were epoxied to the fins so they were parallel to the body tube. After the epoxy cured, the 18mm diameter nose cones were glued to the top of tubes mit plastik-kleber.

Two 5 cm long and 3/16" dia. Launch lugs were attached to each main body tube with CA. A 48" long, 1/4" heavy-duty elastic shock cord was secured with epoxy through a thick tag board anchor about 2" below the top inside of the body tube.

Generous fin fillets were applied and the entire rocket was sanded with 400 grit paper. After a Krylon invasion at the local K-Mart, two thin coats of #1315 white primer were followed by two coats of their white gloss. The nose cone got a good "wet" cat of Krylon light blue.

Two 1/4" strips of blue monocoat 3/4" apart were applied to the top of the body tube. Eight 3/8" Blue's Clues paw print stickers were evenly placed between the blue strips. A 3" wide band of blue monocoat encircled the rocket 10 1/2" from the top of the body tube. A 1 1/2" circle was removed from the blue band on the side opposite the launch lugs. A large sticker of Blue was trimmed to fit inside the resulting white circle (porthole).

A 1/4" band of blue monocoat was applied to the top of each fin pad body tube. Pactra's silver Trim Tape was used to border the blue bands. The Bands at top of the main body tube, Blue's porthole, and the bands on each fin pod were dressed with 1/16" trim tape. The large blue body band received 1/8" trim tape.

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The left side of each fin gained a 1" Blue's Clues paw print. Each finpod earned a 3/8" paw print facing out 1/4" above the bottom of the tube.

The top inside of the body tube was reinforced with a very thin layer of 5-minute epoxy. I borrowed a 24" nylon blue and white drogue 'chute from an HPR box and attached it 3" from the nose cone on the shock cord.

I thought Blue was ready to fly, but Garrett, the grandson, claimed she needed "paws" to pad each finpod. While cruising our Giant on a coupon run, I spotted these two-toned blue S.O.S. sponge scouring pads. Schwing, into the cart! Later 1" circular pads were cut and placed sponge side first into each tube with a liberal amount of Elmer's wood glue. Well, the "landing paws" do add to the appearance, and may have prevented damage on Blue's first four flights.

Blue's maiden flight came the afternoon of the Night Launch at Middletown. She climbed high on a D12-3 and her blue and white 'chute blossomed nicely. She later flew at Matthew-4 in October.

Prior to College Park Airport Airshow, I fashioned a one foot diameter paw print from 3/4" particleboard. I sprayed it with Krylon Silver and True Blue Gloss. Blue was a big hit on display at the Airshow.

Many thanks to Doug Pratt, Hallmark Blue's Clues stickers, the Blue's Clues Viacom people, Krylon paints, Estes, et. al. *And Garrett's super, big smile? Priceless...*

Leaping Thankful I into the 21st Century

by Ole Ed

Well here we are at last in the latest millennium, a fad that will wear off in tens of hundreds of years. The most wonderful aspect so far, and this really started more than a year ago, is that now we all know how to spell "millennium" one of those queer words that normally one sees now and then but rarely uses or spells. I'm afraid in about five years or so, "millennium" will slip back into being one of those quaint unused words and we'll forget it has two Ls and Ns.

In any case it feels odd to know you're in the 21st Century. I was just getting used to the notion of being in the 20th Century. Twenty-first, that sounds so modern, so new, it's like just around the corner we'll bump into Buck Rogers who has been waiting for us...oh the thought of finally bumping into the past future isn't that old or infrequent; this writer lived well before 1984 and watched that year go bye and meet George Orwell's "I 'll pick a year so far in the future, that maybe it'll seem plausible." And we are now running smack into Stanley Kubrick's Arthur C. Clark's 2001 so Buck isn't so far ahead. Well maybe he is, I kinda recall Buck leapt into

the 24th Century, but hey the 21st is still so new and modern...I enjoyed the 1999-2000 New Year's Eve celebrations a lot, but never considered the year 2000 to be the new millennium. Nor did I consider it really as the last gasp of the 20th Century; with all the hype it was sort of a faux 21st pretender, and it went by quick.

At this point I wanted to comment on the recent presidential elections on how it finally abated (on who won) in time for us to celebrate Christmas, and how it wasn't such a bad thing and perhaps inspirational to those who took these things for granted and how someday someone might grow up with the aspirations of becoming a Ryder truck driver. But my wife said to me, "If we're going to see that movie, we ought to go now." So you were spared my polemics.

On the way to the theater my wife was really delightful. I showed her my Gummy Alien that Alan Williams gave me for Christmas (a Bowie Mobil Gas Station special). It is translucent orange of a typical "Grey" but about 5" in height encased in a plastic cylinder. "Uh," Diane exclaimed in true astonishment. "That is funny; let's eat him." I chuckled and she continued metaphysically, "I wonder if aliens have Gummy Humans?"

We went to see Dungeons and Dragons. Not much to say about the movie, except we saw an old "friend" there. Playing the part of an elfin shaman was Dr. Who. Diane recognized him, I didn't, and she said, "Isn't that Dr. Who?" I still wasn't sure, but Diane said she recognized his smile. When the credits rolled, sure enough, they listed Tom Baker, the third Dr. Who. Hadn't seen the guy in years; think that was the most delightful surprise in the movie.

This happened to me once before recently. Was watching The Legend of Sleepy Hollow and at the beginning the magistrate was played by Christopher Lee. Jeepers I thought the guy was dead, it must have been 25 years since I saw him in a movie. He looked good. It's always nice to see these guys you've thought were long gone pop up and surprise you. For you youngsters he played Dracula, kinda picked up the role from Basil Raftbone after Basil inherited the mantle from Bela Lugosi. Lee's ascendancy occurred in the mid-60s to the 70s if I recall.

Just Another January?

Paul Miller, NAR 51615

For those who really care, we "most likely" just saw the first day of the twenty-first century. Venus was just as brilliant as it is this January! Was Venus the "Christmas Star"? Do shepherds watch their flocks in winter? Did early Christians adopt their celebration to match the winter solstice and Hanukkah to protect themselves? Did the Romans and later the papacy redefine the "calendar" so many times that no one knows when events really occurred? Time is not absolute, it is an invention of our confused civilization. Time continues to be redefined.

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According to Einstein, time is the fourth dimension. Have you ever contemplated Einstein's Clock Paradox, or his curved space? Check out the December issue of Discover Magazine devoted to "Does Time Really Exist?" Some physicists actually think that the passage of time is just an ILLUSION!

Back to artificial time - the present (a.k.a. now). Hope you had the opportunity to safely enjoy the partial solar eclipse on Christmas Day. Diffuse Flying Z clouds blocked the syzygy from my favorite eclipse. At least I didn't have to fly to Finland like I did in July 1990 to see absolutely nothing.

This January has lots to see. Jupiter and Saturn continue to dazzle in Taurus. About an hour after sunset on "NARHAMS Night" (Jan. 5) a waning gibbous Moon joins the planetary pair. Later in the year Jupiter will conclude its retrograde loop, moving onto Gemini, leaving Saturn behind. They won't meet again for another twenty years. Mars will gradually become spectacular as the year progresses. For those who can't wait until May and June, catch the red planet high in the southern sky along the ecliptic at dawn. Venus will delight observers who face to the west just after sunset. An extremely thin crescent Moon joins our sister planet Jan 25 to 28. Venus sets four hours after the Sun. Venus will be super-bright next month. Tiny and dim, Mercury will make an appearance just to the right of the nearby crescent Moon on the 25th and 26th in the southwest about 30 minutes after sunset. Look just above the horizon. I may have to drive over the Chesapeake Bay Bridge for this event. I ventured to Kent Island last June to spot the little planet, and it was worth the trip. Unfortunately, the lunar eclipse of January 9 will occur during daylight hours for Delmarva viewers. Now if you happen to be in Europe...

January 27 and 28 brings a moment of silence for ten American astronauts who perished in the Apollo and Space shuttle programs. Several of them had close ties to Maryland. Lest we forget:

Virgil I. Gus Grissom	Judith A. Resnik
Edward H. White II	Ellison S. Onizuka
Roger B. Chaffee	Ronald E. McNair
Francis R. Scobee	Gregory B. Jarvis
Michael J. Smith	Christa McAuliffe

Ad Astra...

NARHAMS Information Exchange

By: Jim Berg

At the recent AIAA picnic launch Richard Hickok mentioned to me he wanted to find out about the egroups "stuff." So I thought a little article was in order.

The NARHAMS club has several ways of sharing information, this newsletter, our meetings, and online. We actually have two

resources online, the first being the official NARHAMS web site (<http://www.narhams.org>) dutifully maintained by Dr. Chris Kidwell, and the egroups online community. The egroups online community actually has a lot of options with it, our discussion group, calendar, database, files, chat, and polls.

Lets start with the discussion group, it is also referred to as our mailing (email) list. This is basically like a bulletin board you post a message which everyone can read and reply to as they see fit. I believe when you become a NARHAMS member if you provided an email address Chris automatically subscribes you to the mailing list. If you didn't have an email address or didn't provide one you can sign up one of two ways: Go the NARHAMS web page and click on mailing list, and click on the Join Egrouops button, this is the simplest way to join. Or go directly to egrouops <http://www.egrouops.com/> and sign up. If you go to the egrouops web site you will need to search for our email group. To join our group search for NARHAMS in the Join a Group area, you will discover there are actually two, one for all the members and one for club officers. Once you find the list you can click on it and view archives of past messages, or subscribe to the email group. When you subscribe you can post messages and receive the new messages via email, and you have access to all the other features, so subscribe today! The reason I mention this second method is there are plenty of other groups you may be interested in signing up for, search on rockets and you will get other NAR sections and NAR scale rocketry. An alternative to posting new messages via the web page is to use your email tool by sending the email to narhams-members@egrouops.com

Here are a couple of things pulled from past discussions to give you an idea of what is there. A recent thread of messages was on getting clear plastic fin stock, also known as lexan. There were a few suggestions, but it looks like the best place is Read Plastics in Rockville (301-881-7900), they sell scraps so you don't need to by a whole 2x4 or 4x8 sheet. In fact Kevin Johnson reported he got a 12x12 sheet of 1/8" lexan for \$2.75, now I don't know the price of lexan, but that sounds reasonable to me. Also listed were all the hotels in the area of the NARAM-43 headquarters hotel. The message is reprinted here in edited form for those who don't have access to the internet.

----- *Message about NARAM-43 hotels* -----

Just go to Mapquest and look around there are plenty of hotels near the Ramada and one just down the street is an Econo-lodge, got to be cheaper. I think there is a Red Roof at the corner of W. Henrietta Rd (Rt. 15) and Lehigh Station Rd (Rt. 253). In fact here you go the 14 closest hotels to the Ramada, Marketplace Inn. Now the two listed in Brighton are a few minutes farther north, so I would probably skip those as the field is south in Geneseo. And all these hotels are probaly 5 minute drive from the Ramada. You can either get back on 390 S one exit to Lehigh Station Rd, or take Jefferson over to W. Henrietta and south on it.

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Marketplace Inn
NARAM-43 Host Hotel
800 Jefferson Rd,
Henrietta, NY 14623 (US)
716-4759190

Econo Lodge-Rochester South
940 Jefferson Rd,
Henrietta, NY 14623 (US)
716-4272700

Howard Johnson
3350 W Henrietta Rd,
Henrietta, NY 14623 (US)
716-4751661

Residence Inn-Rochester
1300 Jefferson Rd,
Henrietta, NY 14623 (US)
716-2728850

Wellesley Inn-Rochester
797 E Henrietta Rd,
Brighton, NY 14623 (US)
716-4270130

Dorkat Motel Inc
3990 W Henrietta Rd,
Henrietta, NY 14623 (US)
716-3347000

Courtyard By Marriott-Brighton
33 Corporate Woods Dr,
Brighton, NY 14623 (US)
716-2921000

Super 8 Motel-Henrietta
1000 Lehigh Station Rd,
Henrietta, NY 14467 (US)
716-3591630

Highland Motor Inn
4600 W Henrietta Rd,
Henrietta, NY 14467 (US)
716-3344280

Fairfield Inn-Rochester/South
4695 W Henrietta Rd,
Henrietta, NY 14467 (US)
716-3343350

Microtel Inn-Henrietta
905 Lehigh Station Rd,
Henrietta, NY 14467 (US)
716-3343400

Red Roof Inn-Henrietta
4820 W Henrietta Rd,
Henrietta, NY 14467 (US)
716-3591100

Days Inn
4853 W Henrietta Rd,
Henrietta, NY 14467 (US)
716-3349300

Radisson Hotel
175 Jefferson Rd,
Henrietta, NY 14623 (US)

Now for a description of the other features, the first is the member list, as the name suggests it is a list of the groups members. You control how much information others see about you here by changing your profile. You may want to be careful in sharing personal information, while you have to be a member of the group to see the information anyone can join the group.

The next area is files, a few of us have used this to upload digital pictures of past launches. We could share any file this way: RockSim(tm) plans, or any rocket plan; drawings, such as John McCoys' paint booth(s); or tech tips. The advantage of this file area is that any member can upload a file, we don't have to burden Chris with the task of putting it on the web site.

The next area of interest is the database area, our current use for this is a table listing area hobby shops, including a description of what they carry and any type of discount. The calendar has obvious uses, but it can only be added to by the group moderator (Chris) or the group owner (Jennifer), but it has the ability to send email reminders of upcoming events. There is a chat feature, but it is not the same one on the NARHAMS web page that is used by Chris to provide virtual access to the club meetings at College Park. The final section is polls, there is currently a poll asking with whom you launch. I don't know of any really useful polls, but as anyone can create one you might have the perfect idea.

Now for those who don't have internet access, you have a couple options, first if you have a computer with a modem, but you don't want to pay for internet access there are plenty of free services out there, you will be stuck with looking at ads, but at least you will be able to get useful information too. Another option is to go to your public library and use one of their internet connected PCs, you only be able to read the discussion group archives, but at least you'll have that.

Matthew IV Results

Full results for the NARHAMS section meet held this past Oct. will be in the next edition of ZOG-43. Quickly I can tell you the club picked up a whopping 3333 points for the new contest year. We had 25 participants including 7 that's right count them 7 teams! Hope you come out and join us for the rest of the contest year, it is going to be a good one, I can feel it my bones ! I hope you enjoyed the article selection to appear in this Millennium Edition of ZOG-43.

Jim

----- End Message about NARAM-43 hotels -----

