

### NARAM-50—Take-It/Fly-It Event

By James Gartrell



Member - National Association  
of Rocketry ("NAR").

#### Special points of interest:

- Are you a little hesitant about flying mid power rockets? That's OK, we've all gone through that stage. You're lucky though. Bob Korman has provided an article in the Mid Power column that's just for you. Page 2.
- There's a little something for just about everyone in this month's newsletter. Award winning DARS modeler, Richard Benavides, gives us some tips on building a scale model as he carries us through the build of his 1st place Mercury Astronaut model. Page 4.
- Lots and lots of new kit releases from the vendors. Page 6.
- Quest's online Model Rocketry Museum is getting bigger. Page 7.

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Models painted and ready to send in to the NARAM-50 Take-It/Fly-It event. Photo by Sam Barone.

Sam Barone, DARS Senior NAR Advisor, coordinated a build session at the May, 2008 meeting for purposes of putting some 18mm rockets together to donate to the [NARAM-50 Fly-It/Take-It](#) event. Clubs across the country were encouraged to build and send in 6 rockets to be distributed to new/under-13 flyers attending NARAM-50. Materials for flying the rockets will be handed out with the rockets, including the first motor donated by Tom Ha, long-time NARAM participant and supporter. Any rockets remaining after the event will be carried over to NARAM-51 to continue the program. John Dyer donated a number of his Free-B rocket kits, plus donations came from Quest and Jack and Suzy Sprague. A very big THANK YOU to all who helped DARS make its contribution to this very worthwhile event! See additional photos, Page 3.



L-R, Sam Barone, John Dyer, Katie McFadden, Dave Shultz, Laurie and Stuart Powley help put rockets together at the May 2008 meeting. Sam painted the models afterwards; see top photo. Nice job, Sam! Photo by James Gartrell.

## The Mid Power Pads: Getting Started in Mid Power Rocketry

By Bob Korman

So you have been flying low power and want to take the next step into mid power rocketry. Reading online rocketry forums, this is a step that can be intimidating. After all, rockets fly at 300+ miles per hour, and even a lightweight rocket can cause damage when moving that fast. Be respectful of any rocket, but fear not – you can do it!

What is mid power? Generally speaking, rockets flown on motors in the E, [F](#) and [G impulse classes](#). (Yes, technically some G motors are high power from a regulatory standpoint, and an Estes E motor is considered by some to be low power, but bright line distinctions are not important here). Typically these rockets have 29mm or 24mm motor mounts.

Mid power rockets are not unlike low power rockets – a body tube, motor mount, retention, fins, nose cone, launch lug, shock cord and parachute. In fact, many low power rockets such as the [Fat Boy](#) and [Big Daddy](#) are

commonly modified to fly mid power motors. Modification may be too strong a word – strengthen the fins, change the parachute, add a little nose weight – all things commonly done in low power rockets as a matter of course. Mid power kits usually have beefier materials than low power kits – items such as nylon parachutes, plywood fins, larger shock cords, etc.

So how do you get started in mid power rocketry? Ask this question on any rocketry forum and you'll get a wide range of opinion. Through the wall or surface mount, launch lugs or rail guides, motor retention or friction fit, epoxy or wood glue, fin strengthening methods, shock cord materials, it goes on and on and on.

My advice is – keep it simple! Don't over think it.

- Buy a rocket kit from a proven kit maker such as LOC ([www.locprecision.com](http://www.locprecision.com)), Public Missiles ([www.publicmissiles.com](http://www.publicmissiles.com)) or Binder Design ([www.binderdesign.com](http://www.binderdesign.com)). All make excellent rocket kits that have been thoroughly tested. You can argue all day about the merits of specific kit features, techniques or materials, but in the end they all can be flown successfully if you follow the instructions and build using the materials provided by the manufacturer.

- Stick with a 29mm motor mount for your initial kit. Some will advise you to go 38mm in the event you want to fly high power motors later. But right now you don't know much about flying mid power motors and you're not certified to fly larger motors! You can fly pretty high and fast on a 29mm mid power motor. Buy and fly a 29mm kit, and if you later want to get certified to fly bigger motors, buy another kit.
- Stick with single use motors initially. Keep it simple. You're new to mid power rocketry – which also means you've probably never built a reloadable motor before. Minimize the cost and complexity of what you are doing until you have more experience. You can always buy reloadable hardware later.
- There is no need to buy software such as Rocksim for your first mid power rocket. Just follow the kit manufacturer's instructions and recommendations. Rocksim is a great program and I highly recommend it, but it is not really needed for building a proven kit.
- The higher the flight, the further you will have to walk to recover your rocket and the greater the risk you will lose your rocket,



A collection of mid-power rockets greets visitors to the Korman home. Photo by Bob Korman.

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especially with the Texas winds. The more time you spend recovering rockets, the less time and energy you have to fly. Moderate heights (1,200 to 2,500 feet) make for good flights, so match your motor to the rocket to achieve an appropriate altitude.

That is it. In a nutshell, keep it simple as you are just starting out. Once you have flown and gained confidence, you can always do more.

## NARAM-50—Take-It/Fly-It Event (cont'd from Page 1) By James Gartrell



Size doesn't matter! From the Fat Boy and Big Betty shown in the other photo, to the Canadian Sprint and the 10 foot tall minimum diameter rocket shown here, all fly on mid power motors. Photo by Bob Korman.



Above—John Dyer assists Katie McFadden in the fine art of sanding.

Below—Dang it! I'm jealous. Sam Barone still has all of his hair! We also have here the best pics of Dave Shultz seen to date, his right arm—laugh out loud—both in the upper photo and below! Just kidding, Dave!

Photos by James Gartrell.



### Building Reheats Mercury Astronaut

By Richard Benavides

Some years ago I found at a local Scale Fest, an [IPMS](#) sanctioned model building contest, a copy of Reheat Models 120mm U2/SR71/ Shuttle Pilot figure. It came out so well and won many 1st place ribbons and trophies that I wanted more. One

put the helmet on.

like a panhandler. Now for painting.



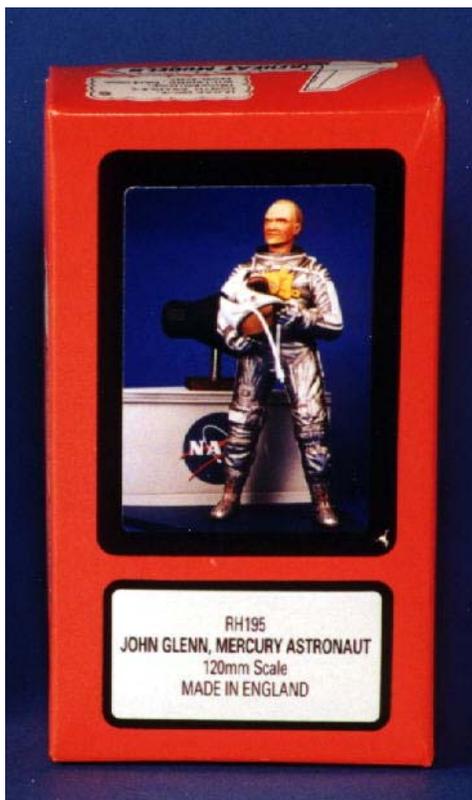
Did some grinding of the head until it just fit. I then cut his hands at the wrists, ouch, and turned them to different angles so that he didn't look

The primer is [Tamiya](#) white primer, a very fine, thin primer that does not fill in fine details. The suit base paint is Testors' [Model Masters](#) Buffable Aluminum plate, buffed using paper towels and Q-Tips to a shine. I then sealed using its brand of sealer that dulled it too much. I was also trying to use an acrylic based wash for the shadowing of folds, etc., and it just didn't have the right effect. So I put it away for awhile and did some research for different ways of 'Washing'. Bought a book on using an airbrush, mainly for the X-Wing Fighter painting article in it where there was an article on a dragon.

major problem though, Reheat is out of business last I heard, and their kits are getting rarer and harder to find.

While following a thread in Real Space Modelers about such types of figures, I asked if anyone had what I had seen in Sven Knudson's site: John Glenn in his Mercury Suit, standing in front of a desk with a large model of a Mercury capsule. It happened that one of the members had a couple and sold me one.

After looking it over I came up with the idea to do something different. Instead of him holding his helmet I thought why not the capsule. Nah, too much surgery, but I did go ahead and



There was another way of washing that I had heard of but never tried. After repainting with the Aluminum, buffing, and this time I sealed it with Tamiya's acrylic gloss clear coat, I then washed using a black, oil based paint in a tube and Turpenoid thinner, a turpentine substitute. Let dry and lightly wipe with an old T-shirt to get rid of the excess. Dry brushed the

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highlights and now that's what I was looking for.

I sprayed the helmet with enamel gloss white but through an airbrush instead of a can, as I wanted a much finer mist for the extra smooth finish. I sealed it also with the acrylic semi gloss, so that after the details I would be doing the oil wash but with less oil based paint. Most details are hand brushed using those little, bitty bottles from Testors of acrylic paints, except for the metal colors on the helmet which are enamel. The emergency pack on his chest is a lightened orange with yellow base coat then dry brushed with the yellow. The brass zippers are dry brush brass Ral Partha acrylic. All, except for the face, was sprayed with a can of Model Master's semi gloss to seal. The face got a couple of hand brushed semi gloss coats and the eyes got some gloss.

Now, unlike the Shuttle pilot, this kit did not come with any photo etch parts. So the hose out of the right side of the helmet is a piece of wire, first painted with CA to simulate the cloth covering of the line. The face shield is many coats of a clear gloss. I wanted to paint the desk and floor to look like marble but could not come up with the right effect, and I was running out of time for the local hobby store contest.

I found a chunk of walnut that was left over from another project for a base, sealed with Krylon clear, gloss acrylic—now for a label. I got the logos from the net, and using a Print Shop program made the plaque from a shipping label cut to fit then covered it with a piece of peel and stick laminate. Using a couple of stick pins, cutting the heads off, drilled and stuck them in each foot and into the wood with epoxy. We are done.

Finished just in time for the contest. Not bad, got a first place!!



Note: All photos are by Richard Benavides. I tried to fit the photos in as Richard indicated they should flow with the text, but just couldn't get them to align properly. Hopefully, all can follow the flow.

Since I had some extra room after the article, I decided to add a few more pics. Below, left, is a photo Richard sent me of one of his latest additions to his tool chest, an image maker. If you're wanting to create 1st place models like Richard does, I'm betting you really need to have the right tools. Richard has acquired a lot of specialized tools over the years to assist him in his creations. Also, as he noted, research, research, research.

I sincerely want to thank Richard for the great article. It gives us a little insight into what it takes to put together a 1st class model for competitive entry. Next time you see Richard at a meeting, say hello. He's a great guy and always willing to help out with a few pointers to those who want to create similar models.

I've added a photo, bottom right, I took of Richard at a meeting a couple of years ago so you can recognize him. The A9 model he's holding in the photo is another award-winning model that he put together and is included in a book, [Target America](#).

Richard is also an accomplished Level 2 High-Power flyer. The photo at bottom left is by Bill Gee and is a picture of Richard's custom-finished Light My Candle rocket flying on an Aerotech Redline I-218. He lost the rocket out at McGregor a couple of years ago. If you've seen it, let him know. Editor.



## Breaking Vendor News!

By James Gartrell

Anybody that thinks the heydays of rocketry are long gone isn't paying attention. I am truly amazed at all the new kits that are made available between newsletters. Unbelievable!

You can now get Semroc and The Launch Pad scale kits and Starlight baffle and motor mount kits direct from [Red Arrow Hobbies](#). He also now carries BT-70 tubes and couplers, and recently received a shipment of the new Aerotech G-76 mohave green reloads, \$10.39 each. Confirm pricing and availability before ordering.

[Apogee Components](#) is releasing the 3rd Edition of Model Rocket Design and Construction. You can pre-order your edition now at:

[www.ApogeeRockets.com/design\\_book.asp](http://www.ApogeeRockets.com/design_book.asp)

You save about \$8 with the pre-order price, which won't last much longer. Check before you order.

Aerospace Specialty Products has a [BA-349D Natter](#) w/Launch Tower (Dragon) 1/48 scale plastic kit available on their website. For you model fanatics, you'd better get your order in fast. These probably won't last long. They also have a book about V-2s back in stock, plus a lot more.

Have you seen the new line of [monocopters](#) now available at Art Applewhite Rockets? These are just too cool. Lots of different designs are available. Check 'em out!

Excelsior Rocketry has a new set of decals for the newly released Estes [Interceptor](#) and Interceptor-E that allow you to give your rocket a unique Canadian or British look. According to some of the kit reviews, you may want to replace the stock decals provided by Estes. Order now!

Madcow Rocketry has released a new 40.5 inch by 1.6 inch diameter 38mm rocket kit, the [Screech](#). Features laser cut plywood parts, heavy duty body

tube, and 18-inch nylon chute. Screamin' might be a better description as this rocket should really haul!

Pemberton Technologies has released a new 24mm kit, the Screamin' Green [Meenie](#)! This 2.6 inch diameter rocket features a unique tube/flat fin design, and a paint scheme that is very reminiscent of Mercury Engineering's Mutant Daddy. Hmm. According to PemTech, "Purchase a Screamin' Green Meenie and impress the girls, strike awe into the hearts of rocket geeks and be the envy of unfriendly nations worldwide!" He's so funny!

[PML](#) has developed a new line of motor retainers, specifically designed for use with their motor tubes or Kwik-Switch motor system. They also have added a complete line of carbon fiber products. Some great stuff!

Quest is taking orders for their limited edition reproduction of Model Missile, Inc.'s first kit, the [Aerobee-Hi](#). Also, check out the "Did You Know" article on the next page to find out what's happening with their Model Rocketry Museum.

Semroc has released two new 18mm 2-stage retro kits, the [Centaur](#), a parachute recovery carrier kit 19 inches by 1.34 inches in diameter and the [Arcon-Hi](#), a 23 inch by 1.04 inches in diameter parachute recovery model.

This is old news, but I was of course browsing the sites of the vendors to see what new lovelies they have cooked up for us and decided to scroll down through the products offered at Sirius Rocketry. I love their kits!! While the [Refit U.S.S. Atlantis](#) is a personal favorite, there isn't one kit I do not like! Anyway, I was reminded once again about what an incredible model they have available to the serious high power flyer, a 1:64 scale model of the [Saturn V](#) designed to fly on an Aerotech I motor. Wow!! I have got to place my order for one of those. Not that I am a

high power flyer, yet, but I know I will be one day and that will definitely be one of the rockets I will fly. It is a thing of beauty!! Photo below courtesy of Sirius Rocketry.



Speaking of things of beauty, Mercury Engineering has released another in their line of rockets, [Grave Danger](#). The paint scheme of the rocket looks really cool, pretty standard for ME, which is accomplished with peel 'n stick decals. It flies on 29mm motors, is over 2 feet tall by 3 inches in diameter and includes a 24-inch ripstop nylon parachute, way cool and nicely priced.

Dr. Zooch has released another rocket in their line of historic rockets, the [Soyuz](#).

K and S Rockets has also released a new kit, the [Triple Insanity](#), which is a 1.64 inch diameter 3-stage kit, 24mm to 18mm, standing just under 31 inches tall. Naturally, it recovers on a streamer. You think!

## DID YOU KNOW?

By James Gartrell

If you are interested in the history of model rocketry and haven't visited Quest's website lately, you should. They have included a number of the old letters between Orville Carlisle and G. Harry Stine, plus some great old pics and a whole lot more on their Model Rocketry Museum page. Even if you don't have a real love for the history of model rocketry, reading some of the old letters really gives some insight into our hobby. I loved this quote from Stine to Carlisle in a 3/57 letter, "**I ought to be working on a book right now, but your d... rockets have me in their clutches.**" How many of us have had that feeling? I don't know what it is about those cardboard and balsa contraptions, but they can sure command your attention. Even Orv Carlisle admitted as much. Or this quote from Carlisle in one of his earliest letters to Stine, 1/57, "**I have always felt that once the systems of parachute and booster were available, the model maker would be quick to adapt it to designs of his own.**" How prophetic is that quote? I have enjoyed rockets from the earliest time I can remember: from sci-fi in the early fifties, launching Parks water rockets in the mid to late 50's, watching the televised Redstone launches in the early 60's and then the quest for the moon during the remainder of the sixties, and then ultimately, my first Estes rocket. Rocketry is in my blood, and the Quest Model Rocketry Museum only deepens my love for the hobby. Quest has done a wonderful job with their museum. I have always felt that our hobby needed an historical museum. Their web page is the next best thing to having a physical museum, perhaps even better, because you can visit whenever you want and stay as long as you like! Check it out at:

<http://www.questaerospace.com/museum.asp>

While you're there, go ahead and put in your order for their limited edition reproduction of the MMI Aerobee-Hi kit. I bought two!

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# DARS

The Dallas Area Rocket Society is a non-profit chartered section of the National Association of Rocketry ("NAR"). Its purpose is to promote the hobby of consumer rocketry in the Dallas/Ft. Worth metropolitan area.

Membership in DARS is open to all interested persons. Membership in NAR is encouraged, but not required. Annual dues are \$10.00 for individuals and \$15.00 for families. The entire family, including children, are welcomed to the meetings. Go to the website and fill out and send an application to join or renew your membership.

The club normally meets on the first Saturday of each month at 1:00 p.m.

Visit the DARS website for the meeting location: [www.dars.org](http://www.dars.org)



Stay connected! All of us will reach greater heights with your attendance at the club meetings.

Vendor Links (\* DARS member discount—confirm before ordering)

[Aerospace Specialty Products](#)

[Apogee Components](#)

[BRS Hobbies](#)

[Dr. Zooch Rockets](#)

[FlisKits, Inc.](#)

[HobbyTown USA— Dallas, Walnut Store](#) (\* 10%)

[MadCow Rocketry](#)

[Pemberton Technologies](#)

[Qmodeling](#)

[QuickBurst](#)

[Red River Rocketry](#) (\* 8.25% on field)

[Semroc Astronautics Corporation](#)

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