BANTRAK News
A Monthly Newsletter for BANTRAK Members • Volume 36 • Issue 08• August 2023

The Engineer's Cab: Chris Quinlan

Happy August BANTRAK Team! It's hard to believe we are over halfway through the summer already. It's been hot and unpleasant in Linthicum Heights, but I've been in the cool basement working on some train stuff… when I'm not out fighting the yard, trying my best to keep up our curb appeal. Our next big event is Altoona coming up in September. That is always such a blast whether we are running trains, eating at the local buffet with "just okay" food, watching trains on Horse-Shoe Curve, or sitting in the hot tub after a long hard day of working on the 1/160th.

What are you working on? I've been going back and redoing projects that mean a lot to me, which I did in my younger years (teens and early 20s), that are just not up to my progressed skill level of today. The two big projects are Phase III Superliners and Phase III Heritage equipment, as represented in the late 80s through the mid-90s (see pictures below). The Superliners mostly just require a paint job and decals. I'm almost done and hope to have them at the next show. Before this refurb, these cars had paint irregularities, crooked decals, and some of the decals were even yellowing from insufficient or too much clear coat. My Heritage Fleet cars have always been a hot mess with bad cuts (kit-bashing), sloppy paint, and subpar decaling, so I started with fresh cars. I did a lot of kit-bashing to make the skirting and undersides look more accurate, matching what Amtrak did when they upgraded them to head-end power (HEP). I also modified windows as needed because Amtrak just couldn't leave stuff alone and decided to make my life as a modeler more difficult. Most of these cars are completed to the point of being primed. They just need paint and decals. It has been fun revisiting these projects, which represent the equipment I grew up with and caused me to "fall in love" with Amtrak and trains in general, but it also makes me antsy to move forward and do other things on my docket.

I guess that's it for now. Our next business meeting will be on 20 August 2023 at 2PM at my house (500 East Maple Road, Linthicum Heights, MD 21090). I hope to see everyone there! Until then, be safe and enjoy the hobby, your family, your friends, and everything else that brings you joy!

Amtrak Heritage Diner in Phase III trim.

Amtrak Suplerliner Sleeping Car in Phase III trim.

New Tracks Modeling Scholarship:

New Tracks Modeling Scholarship
Submitted by Christopher Quinlan

On July 25th, 2023, our very own Ethan Bernstein won a scholarship from the New Tracks Modeling Scholarship program for his modeling efforts, scholarly achievements, and involvement in our community at large. Ethan is an impressive young man, and this $1K scholarship is well deserved. I would also encourage each of you to investigate the New Track Modeling Scholarship program. It seems like a very worthwhile project and a wholesome organization.

Write-up from Mr. Jim Kello:

I have included the write-up for Ethan's award so you can get a small glimpse into what all Ethan is up to!

Ethan has completed his sophomore year at Johns Hopkins university with a 3.69 GPA. He is an active member of the Baltimore, MD, Area N-Track Club (BANTRAK). He writes:

"I am an N-Trak and T-Trak module owner and builder. I help with setup and teardown of layouts at local train shows, including the Great Scale Model Train Shows at Timonium, the Baltimore and Ohio Railroad Museum, and displays, and run trains for public viewing. I also frequently contribute to the club's monthly newsletter with modeling articles and reports from rail-fanning."

Ethan is a NMRA member where he serves on the Conformance and Inspection department specializing in N-scale equipment. He also writes reviews for the NMRA magazine. He is a talented modeler as evidenced by the two photos he included in his application:

For more information about Ethan please read the short essay he included in his Scholarship application:

"A love of tiny things. I have always been drawn towards the smaller things in life - literally. When given the option of what to buy, I would always choose the smaller item, whether it was a pocket-sized dump truck over the rideable version, or the smaller scale train over the larger size.

My interests with tiny things directly correlate with my interests in machines and engineering, where I find the cool, most complex machines to be those that are the most compact, such as the workings of a diesel engine, where lots of different small parts are required to generate immense amounts of power.

This love of "tiny things" was what called me to model railroading. When I discovered model trains in elementary school, I was immediately enthralled by the ability of such a small electric engine to haul tens of freight cars, just like the real thing. I was also amazed by the detail that could be stuffed into such small models, and the compactness of the drive mechanisms inside the locomotives. I decided to pursue N-scale modeling, one of the smallest scales of model trains, with a proportion of 1:160, meaning a diesel locomotive that in real life is 72 feet long, is a mere 5.4 inches in N-scale.

To increase my knowledge base in the hobby, I purchased and subscribed to several model railroad magazines, went to model train shows, and even joined a local model train club, known as Baltimore Area N-Track, or, more commonly, BANTRAK. I write articles for the club's monthly newsletter in which I describe how I constructed a certain model from scratch part

For example, how to make a detailed, scale-sized model airplane or train car from cheap and readily available materials like matchsticks and paper, so that other members of the club could make similar models of their own or learn from the techniques I use when building a certain type of model or working with a certain material.

My love of tiny things and my desire to have a positive impact on those around me has

New Tracks Modeling Scholarship:

guided my interests in materials science, and more specifically, nanomedicine.

I discovered nanomedicine when I embarked on a research project my sophomore year, searching the internet for a compelling topic until I finally found something which suited my interests: a tiny medical treatment with a huge impact.

Nanomedicine encompasses various forms of microscopic drug delivery platforms to treat various diseases and conditions. I was again captivated by another "tiny thing," this one with the potential to cure a problem as widespread as cancer, and instantly knew nanomedicine was the right topic for me. I have been researching nanomedicine for three years, pursuing my passion for "tiny things" in a way that could greatly benefit others.

My nanomedicine research has guided me to the field of oncology, prompting me to learn about cancer physiology as well as the workings of different systems in the human body at a cellular level, expanding my ever-growing knowledge of super tiny things. In addition to my nanomedicine research, I have also begun investigating an even newer "tiny therapy" called immunotherapy, which, similar to nanomedicine, works at the microscopic level to fight diseases.

At age eight, I would never have guessed that my new hobby of tiny model trains would lead me to later conduct research that could have a life-changing impact on people across the globe. Sometimes the most unexpected and impactful things in life are those that are the smallest."

Thank you Ethan for submitting your application and sharing your model railroading experience and educational goals with us. I know that all of our Model Railroad community wishes you great success in your future education, your professional career, and your future model railroading. We believe you have a very bright future ahead of you and appreciate this opportunity to provide some financial help as you continue to work toward your goals. Best wishes in all your future endeavors.

To say I am proud and thankful for all the support and hard work put in by so many modelers who helped make our first year Scholarship program a great success is an understatement.

However, I personally want to thank all the New Tracks Modeling volunteers whose hard work and dedication made this scholarship possible. Special thanks are given to our volunteer Scholarship Committee: Bob Davidson, Chairman, Jeff Jordan, attorney, and members Phil Edholm and Kevin Macomber. It goes without saying we also owe a debt of appreciation and thanks to the model railroaders whose financial contributions made it possible to reach our first years' goals. Rick Barton, Chris Course, Greg Cassidy, Pat Rivard, Bob Davidson, Bill Grierson, Fr. Ron Walters, Jeff Zibley, David Menard, Greg Wart, Scott Geare, Dan Dawdy, Kevin Macomber, David Schultz, Henry Primas, David Vaughn, and Larry Price. Finally I want to thank the volunteers who exhibited our promotional banners around the country, the organizations who allowed us free space at their events and those that publicly supported our efforts. Thank you all. We could not have asked for more support from both the model railroad community and the broader hobby community including the Hobby Manufacturers Association and the National Retail Hobby Stores Association. Thank you all so very much.

New Tracks Modeling is the only volunteer group of Model Railroaders who, as far as I know, is offering a National STEAM scholarship program funded by donations from todays' Model Railroad Community. We encourage clubs and other organizations to join with us to expand our efforts. Our young model railroaders deserve all the educational help we can give them so our hobby will continue to have knowledgeable lead-

New Tracks Modeling Scholarship:

ership to guide our hobby into the future.

To learn more, and to donate to the New Tracks Modeling Mentoring Scholarship, please visit www.newtracksmodeling.com/scholarship

Jim Kellow MMR
Facebook Page: https://www.facebook.com/Jim-Kellow-MMR-107123997469688/
YouTube Channel: https://youtube.com/c/NewTracksModeling
Web Site: https://newtracksmodeling.com
APMM Ambassador to Model Railroading
https://www.modelmakers.org/

Peacekeeper car: Chris Quinlan

Where the Air Force Meets the Railroad

On the 15th of July, I had the opportunity to visit the U.S. Air Force Museum on Wright Patterson Air Force Base in Dayton, Ohio, with Kendra and the kids and some extended family. While there, I had to stop by and see a railcar built to launch nuclear weapons at the Soviet Union if things worsened during the Cold War. This car represents a massive culmination of my interests: trains, Cold War history, aviation, and space. I sure am glad we never needed to use these!

The following is the narrative that accompanies this display. If you are in the Dayton area, this museum is free and a must-visit!

PEACEKEEPER RAIL GARRISON CAR

On December 19, 1986, the White House announced President Reagan's approval to develop a rail system for basing part of the Peacekeeper Inter-continental Ballistic Missile (ICBM) force. To increase survivability of this force, 50 Peacekeepers would be deployed in existing Minutemen silos and 50 more would be mounted on 25 USAF trains, two per train.

Each train would consist of two locomotives, two security cars, two missile launch cars housing the missiles, one launch control car, one fuel car, and one maintenance car. Each launch car carried one Peacekeeper ICBM, in a launch tube which could be elevated to fire the missile from the bed of the car. Overall body length of the launch car is 87 feet and fully loaded, it weighs more than 520,000 pounds.

The trains would be parked in shelters located on USAF Strategic Air Command bases throughout the continental U.S. with the missiles on continuous strategic alert. When necessary, the trains could be dispersed onto the nation's rail network, making it extremely difficult for an enermy to target and destroy them. Development of the rail garrison deployment system was terminated in 1991 as Cold War tensions eased. Major contractors for the rail garrison system were Boeing Aerospace Corporation, Westinghouse Marine Division, and Rockwell International Autonetics.

The prototype car was delivered to the Museum in 1994.

Hacking a Bachmann Heavy Mountain: Bob Bunge

A while back, John and I decided adding a Mountain type steam locomotive, a 4-8-2, to our collection of B&O locomotives would be fun and provide some operating flexibility at shows. The Bachmann Heavy Mountain had a good review on the Spookshow website, so we started looking for one at shows.

At the 2022 N scale weekend in Altoona while we were still setting up the layout, John hunted me down and pulled me across the aisle where there was a Bachmann DCC Mountain with N&W paint with a $125 tag on it. We approached the vendor and offered $100 cash, which he accepted. Back at the hotel, I realized the bell, mounted at the top of the smokebox, was missing. The next day, I put the loco on the track and found it at address 03. It ran for about three feet before the running gear on the left side fell out of the drivers. Ok…perhaps we got what we paid for! I packed it away for later.

At home, on the bench, it turned out it wasn't difficult to line everything back up and press the cranks back into the wheels. It ran a couple of laps and the cranks came out again. This time, I pressed them in really hard and they stuck.

The B&O class T3 Mountains had center mounted headlights like the model. They also have air pumps on the pilot, with a cover plate with the Capitol Dome logo on it. I fashioned a plate out of a piece of brass and glued it in place. I used acetone to remove the numbers on the cab. The tender had no paint on it. I removed the glass windows in the cab - which aligned more with the B&O prototype and taped it up to keep paint off the running gear and tender trucks.

I hit it with Tamiya gloss black with my airbrush. I already had a set of Microscale B&O steam locomotive decals from another project. I picked 5570 for the engine number based on an impressive photo of a T-3 from a B&O wall calendar. After the decals had set, it got a layer of Tamiya flat clear. I "sputtered" this on at 15lbs of air. I like the slightly rough surface this provides, which to my eyes, makes it even more flat and less "plastic" like.

I also mixed up some Tamiya black and Tamiya silver paint to match the dark gray/silver for the smokebox with the airbrush. It took some time to tape up around the smokebox, but in the end, I think it came out looking pretty good.

In the meantime, I had picked up a diesel locomotive bell from Ebay. The package had two bells, which was good because it was so small I gave myself a 50 percent chance of losing one. This glued into place where the missing bell belonged just fine. I used a brush with Tamiya Gold to paint the bell, whistle, and pops. I used thinned Tamiya silver in various places, like the air pumps and on some of the running gear to add some depth.

The prototype T-3s, since they had the air pumps up front, had flush walkways the length of the boiler. B&O also put a jacket on the smoke box, giving these locomotives a very clean, smooth look. I wasn't up to that much of a hack, so I haven't changed that part of the boiler.

I had finished the paint job the night before the fall Great Scale show. The locomotive ran great on N-Trak. On Sunday, I ran it on FreemoN, where at one point, someone asked if it was a brass model. One thing I've observed about FreemoN is you get more comments about the trains since, for adults, you can get closer to the models.

The bigger thing that bugged me was the tender. The Bachmann model came with a mid-sized standard USRA tender. The protos were built (most of the T-3s were rebuilt boilers from decommissioned 2-8-2's with the addition of a new boiler course) with either Vanderbuilt or large box tenders. To my eyes, the box tenders were very similar to the tenders on the Bachmann EM-1 2-8-8-4 models. Some digging around showed the proto box tenders were four feet shorter than the EM-1 tenders. Close enough for me.

Hacking a Bachmann Heavy Mountain: Bob Bunge

I reached out to Freddy, asking if in his searching, if he found a parted out EM-1 to let me know. He came back pointing out that Bachmann sold EM-1 tender shells and frames with trucks on their parts website. That looked interesting, except they totaled to about $100, as much as we had paid for the locomotive!

I waited and looked for several months. In the meantime, the Mountain became a favorite for John and I to run; it looked great pulling a coal drag, the WWII military train or the B&O relief train. It proved to be a good puller, and runs very smoothly. At B&O, John teamed it up with double head (sound) EM-1s to pull a 100 car train. Now wouldn't it be grand if the Mountain had sound?

While I watched and hoped for a parted EM-1, Santa was nice enough to leave a Soundtraxx TSU-1100 sound decoder and speaker in my stocking.

Finally, in the spring, I decided I was tempting fate, dreading to open up the Bachmann website one day to find either of the tender parts to be out of stock (the tender trucks are very nice kit bash material), so I ordered a set.

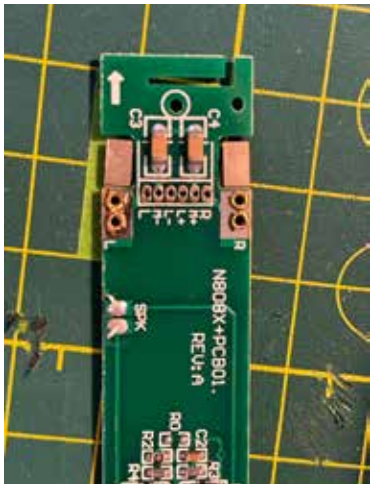
I had two surprises. The draw bar connection for both tenders were the same! It was as easy as disconnecting the old one and attaching the new one. It appears that Bachmann has standardized their drawbar design, as our 10-wheeler uses the same design as well.

Surprise number two was that the tender frame included a speaker! The speaker is large and embedded in the frame, designed to use the tender shell for the sound chamber. It didn't take long to decide to try this speaker first. The tender also came with the PCB board, but without the plug-in decoder. The PCB board was large and customized for the decoder so I removed it to free up room.

But the PCB board also supplied the tender backup light as well as contacted four power risers from the trucks. Wiring up a LED for the light would not be a problem. I soldered wire from the risers, back to front. From there it got interesting.

There are six wires, all painted black (and all blue under the paint) that come from the locomotive. A guess was two for track power, two for the motor and two for the front headlight. In the original tender, the wires ended in a female plug that was connected to the original tender's PCB. The new tender's PCB board had a similar male plug. I decided to unsolder that plug and use it as a free standing connector for the new decoder. This would allow me to in the future unplug the tender if I wanted. Actually, it would allow me to swap the tenders as well.

But what wire is to what? The new PCB had a clue. There were markings on the PCB:
R M+ L+ L- M- L



I read these as Right track, positive Motor, Positive light, Negative light, negative motor and left track. The female plug from the loco was marked "Up" on one side. So I started soldering, carefully, to the new male connector. I started with the track pins. This was the trickiest, since I also needed to connect the leads from the tender wheels. When these were completed, the simple test was to place it all on the track. The Digitrax controller beeped a track fault as soon as I turned track power on. On a hunch, I flipped the plug from the locomotive so that "up" was now "down." No more short. I desoldered the outer wires and reversed them so I wouldn't be confused in the future.

I next connected the motor leads. This was a crap shoot. To my glee, no shorts, and when programmed for 03, the locomotive moved! It was reversed, but it worked! After thinking if I should reverse the direction in the CV, I went ahead and reversed the wire leads. When it came to the headlight, wanting to avoid burning out the LED in the locomotive and having to remove the shell, I went conservative with the resistor, so the headlight is a bit dim, but looks fine.

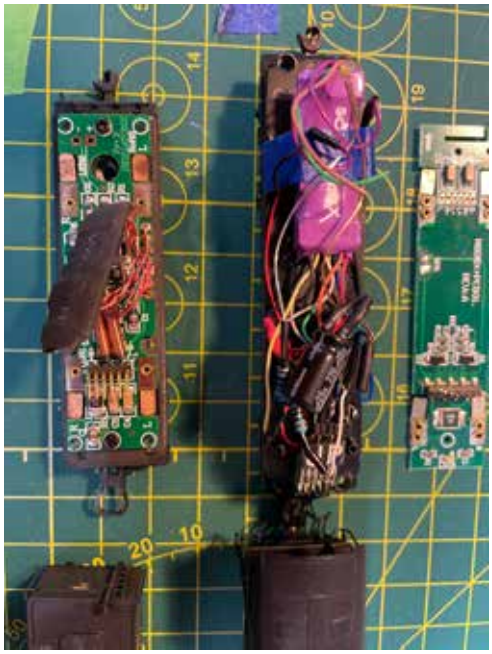
Hacking a Bachmann Heavy Mountain: Bob Bunge

I had originally intended to see if I could fit a Soundtraxx keep alive unit in the tender. I even had the cash in my pocket to pick one up from Yankee Dabbler at the last Great Scale Show, but they didn't have any in stock. The TSU 1100 comes with a single capacitor. While the instructions suggested this cap is optional, my experience with another install had shown the decoder could be flakey unless this cap was installed.

The last thing was the backup light in the tender. For this I used a pre-wired LED that I placed to point up at a light tube in the back of the tender.

Oh, test runs had shown the new tender's front truck came off the track when entering a left turn or backing over a turn out. Examination showed the truck frame had been assembled incorrectly; the piece representing the brake cylinder was pushing against the tender frame, preventing free motion of the truck. Once this was fixed, it ran fine.

The next step was to work on the tender shell. In order to match the locomotive, I first air brushed the tender with Tamiya clear gloss. After that dried, I sputtered flat clear as had done with the locomotive.



My final touch was to coat the coal pile with a 50/50 mixture of white glue and sprinkle ground up real coal (from a piece I picked up at Strasburg), followed by some wet water. This draws the 50/50 mixture up into the coal dust. I find this look pleasing and much better than the default plastic coal.

Perhaps the part that worries me the most with these installs is the final assembly. I'm not the most neat person when it comes to running wires. I'm not the best solderer, so I often leave more wire than

needed. Both of these usually result in a model spaghetti factory. Does it all fit into the shell? Will any solder joints break? Have I insulated everything so if two joints touch there isn't a short? I've had all of those things happen in the past. In this case, it all went together.

Next step was spending some time listening to the sound samples on the Soundtraxx website and deciding what I wanted to use. John and I would set these, run the locomotive for a bit and experiment until we had something that we liked.

I look forward to running this kit-bashed locomotive. I know John is looking forward to running it with the EM-1s, perhaps has a pusher on the back of a long train.

BANTRAK 2023 Calendar

September 06, 2023
Newsletter content deadline
We need content, please submit your articles by the deadline.

August 20, 2023
Meeting:
Location: Chris Quinlan's house

September 18-19, 2023
NScale Weekend
Blair County Convention Center
Altoona PA.
Cordinator:Martin Myers

Buy your ticket here:
https://www.theaamr.org/n-scale-weekend

October 14-15, 2023
Great Scale Show
Location: Timonium Fairgrounds
Cordinator:Tim Nixon

BANTRAK Membership: Al Palewicz

BANTRAK does a significant amount of charitable activity, although we rarely think of it that way because we get pleasure out of it. When you think about it, that is as it should be with all giving from the heart.

What is our charitable activity? Our major participation is in the B&O Museum's (which is a charitable organization) Annual Festival of Trains. Our display has been a major draw for people to come to the Museum for many years, both recent and in the past. There are plenty more examples, this is just one.

Please contact Treasurer Tim Nixon for more information regarding your membership status and roster questions or contact Al Palewicz with general questions.

Member Benefits:

- Sharing of your knowledge (railroading and modeling) with others of similar interests
- Access to railroading and modeling knowledge of other members
- National exposure and recognition of your endeavors in modeling
- Hands-on activities: Club modules - track, wiring and scenery. Raffle layout - track and scenery Members' layouts
- Recognition as being part of a Nationally known club.

Train Spotting: David Betz

Classic steam rolling at Strasburg. N&W 611

BANTRAK was founded in 1983 as the Greater Baltimore N-Scale Associates. Begun as a “round robin” group to share skills and experiences, we have expanded our focus to include participation in many diverse activities to promote model railroading in general and N-Scale model railroading in particular. Activities include participation in local, regional and national shows, meets and conventions. BANTRAK membership includes membership in the national NTRAK organization.

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This is ***your*** newsletter! Please send articles, photos, and suggestions to newsletter@bantrak.net
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