HUB Headlight

HUB Division Inc., Northeastern Region, National Model Railroad Association - www.hubdiv.org
Volume 41, Number 5, May - June, 2025

RAILFUN TIMETABLE

Modeling the New England Granite Industry

By Scott Jewell

10 AM, Saturday, May 24, 2025

Chelmsford Public Library, 25 Boston Road, Chelmsford, MA

Spend some time taking a look at the New England Granite Industry and how they interacted with the railroad. I will use photos, maps, and models to help tell the story of how granite was quarried and transported. This talk will have a 1920's perspective because I will be using my model railroad, the Boston Docks and Rocks, as an example of how you can model the granite industry.

Joint RAILFUN Session with the Seacoast Division

10 AM Saturday, June 21, 2025

Marion Gerrish Community Center,

39 West Broadway (RT. 102, Exit 4 off I93), Derry, NH

The last RAILFUN of the season will be another joint gathering with the Seacoast Division on Saturday, June 21, 2025.

Four clinic presentations are on tap starting promptly at 10:00 AM. **Tom Oxnard** will be sharing his knowledge of using a cell phone for taking exceptional layout photos, **Peter Watson** will show us how the new technology of wiring switch machines makes that task easier and **James Van Bokkelen** and **Bruce Robinson** will take you along on a tour of how each of their layouts were conceived and built.

After a lunch break, four layouts will be open for a tour including Jim Falls, Salem, NH, John McHugh, Plaistow, NH, James Van Bokkelen, South Hampton, NH, and Bruce Robinson, Sandown, NH.

The clinic schedule will run 10:00 AM to 12:30 PM and the layout tours will be from 2:00 PM to 4:00 PM.

Last year's joint gathering was a great success, so join us again to make this get-together another great time.

Franklin Station on Bruce Robinson's Valley Junction Railroad.
Photo by Bill Barry

The "chip" factory on Jim Falls' Stratton Valley Railroad.
Photo by Bill Barry

(Refer to Page 11 for information about RAILFUN updates and cancellations)

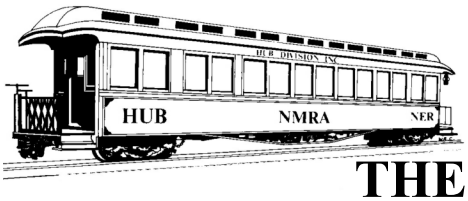
Building the EBT Mine Fan House

By Russ Norris, MMR

The original purpose of the East Broad Top narrow gauge Railroad was to transport coal to the iron furnaces at Rockhill Furnace. When the iron furnaces closed early in the twentieth century, the railroad continued to carry coal, but not to Rockhill Furnace. Coal was mined on the east slope of Broad Top Mountain, some 32-miles south of the EBT's northern terminus at Mount Union. At Mount Union the coal was washed, cleaned, sorted, and transferred to standard gauge hopper cars destined for the steel mills of Pittsburgh and Steelton.

(Continued on Page 7)

Also Inside This Issue



THE PRESIDENT'S CAR

By Manny Escobar

Happy 2025 Spring and Summer! As we go into the quieter part of our season, we start to relax and make our summer plans and projects. But in the business of our organization, we are starting to ramp up planing for the next year. I will be reaching out to the current officers and confirm appointments for the upcoming season. This will be done prior to our next and last Board of Directors meeting in June 2025. We are still in need of volunteers to step up to take over for some of the positions.

With that said, we are appealing to potential volunteers for the position of the HUB *Headlight* Editor. As we have mentioned in past issues, Bill Barry the current Editor is stepping down, so the HUB division is "STILL" looking for a *Headlight* Editor. Bill and various members had no luck in finding someone to step up and volunteer for this position. We have been blessed that our former HUB Editors had a long legacy helping out doing our newsletter. Our membership has long enjoyed issues of the *Headlight* to stay informed on the current membership projects, ideas, editorials and the calendar of events.

Bill Barry will be assisting the new Editor with the transition. The sad news is, if we do not find someone to step up and be the HUB's Editor, this will be the Last *Headlight* Newsletter until we find someone. We are reaching out to you today because we believe in the power of our membership and the impact that dedicated individuals like you can make. The HUB Division will continue working to bring awareness to this hobby and we're always looking for passionate volunteers to help us achieve our goals. Please if you are passionate about our hobby and would like to make difference, reach out to Bill Barry (editor@hubdiv.org) or myself (president@ hubdiv.org).

Last month we held our annual meeting and elections for three directors. I want to say thank you to Pete Watson, HUB Clerk for making this happen in accordance to our bylaws. I also want to thank the membership for voting and re-electing Pete Watson, MMR, and Bruce Robinson and electing new board member Sean McGillicuddy. Congratulations to all of you. I want to personally thank Malcolm Houck, MMR, for being a fantastic Vice President and asset to the Board and our organization.

Again, I want to mention that we are still in need of a facility for us to store materials and to meet and work on modules. If you know of anything, please pass it along to the Board.

One last note on volunteering. The Museum of Science (MoS) volunteers have been honored by the Museum of Science for the impact that they have had on making the display a great success. Boris and Dana, thank you very much and all our members that volunteered.

Until next, time, ***"Keep 'Em Rolling"***

2025 Election Results

The following members were elected to three-year terms on the HUB Division Board of Directors:

Peter Watson, MMR

Bruce Robinson

Sean McGillicuddy

Museum of Science Volunteer Awards

By Boris Maznek

For many years the Museum of Science has had a program to recognize their volunteer employees. Since we weren't part of the Museum's employee scheduling system, it wasn't possible for them to recognize the efforts of the HUB volunteers.

This year the Museum agreed to accept the Sign-Up Genius records going back to 2021, so these awards are based on total volunteer hours from November, 2021 to January, 2025.

What is not reflected here is the countless unrecorded hours that members including Shack, our Crew Chiefs – Pete Watson, Jeff Gerow and Gerry Covino, and many others have contributed to this event.

Congratulations and thank you.

MOS Silver pin award (over 500 hours)
- Christopher Byrnes
- Boris Maznek

MOS Bronze pin award (over 150 hours)
- Rodney Feak
- Dana Andrus
- Peter Watson
- Jeff Gerow
- Carl Gifford
- Bill Grunwald
- John Russo
- Al Doig
- Gerry Covino
- Karen Walrath

MOS Atomic pin award (over 100 hours)
- David Haralambou
- Peter Higgins
- Bruce Robinson
- Jim Woodward

HUB Summer Picnic

July 20, 2025

The Summer Picnic is tentatively scheduled to take place at Waushakum Live Steamers in Holliston, MA, on Sunday, July 20 (rain or shine) from 11AM to 2PM. Visit www.waushakumlivesteamers.org More information will be emailed, or look for further details on the HUB website and Facebook page.

Shanty Talk

By Rudy Slovacek

DCC-The Early Days

In a prior column, I spoke about the HUB's entry into the Big E and some key developments that brought us up to date. Now I'll cover some of the highlights as I remember them.

When I took over from Mark Harlow as the module superintendent, we were using two radio controlled DC units, one for the outer main and one for the inner. Within a couple years Bert Lenz donated the use of his patent for Digital Command Control (DCC) to the model railroad community. Debbie Ames, who was the authorized Lenz distributor for the U.S. helped us get set up, but first I had to go to the board of directors to propose a budget of some $4000 to cover all the Lenz equipment initially. This seemed needed. Surprisingly, the HUB board approved, with some coaxing, and we were off. Debbie even gave the module group members a generous donation of five decoders each to those who wanted to install them in their locomotives. Of course, there were some skeptical holdouts, so we had to design the power distribution system to accommodate both heritage generation DC powered locomotives and DCC. This entailed switches to source either DC or DCC to the mains and yards. There were some hiccups like someone throwing a switch, without notifying all concerned, and sending a locomotive flying through an engine house when the power was changed.

Then of course there was our prankster, George Thompson, who quickly learned that by programming someone else's engine number into his controller, he could over-ride the unsuspecting engineer's locomotive creating much confusion. We soon put a stop to that as people became more familiar with the system.

It soon became clear that running a single train on the large HUB layout meant that there appeared to be no train activity except on one side. Without movement people soon lost interest and moved on. This seemed no different from running DC so, we endeavored to put more operating trains on the layout by buying more throttles. But even with as little as two trains per main, people were experiencing many rear-enders. Some form of control by a dispatcher was now needed. This additionally required some hand-held radios from either RadioShack or Staples (more expense). Mark Harlow came up with a galvanized piece of sheet steel to which were affixed 1x2 inch scale drawings of the available modules backed by thin sheet magnets. Thus, we could change the available layout design for any given show and help the dispatcher track train location by moving a small 90-degree angle bracket with one arm fixed to a small magnet and a sticky colored page marker on the other arm with train information. Engineers were required to call the dispatcher for orders to proceed to a specific module or corner location. It wasn't long before people wanted to sign up for the dispatching job instead of just operating a train. This state of operation went on for several years, but it too was not without its problems. I remember one year, while I was the dispatcher at Springfield, when Captain Baker became confused about which handheld was the radio and which was the throttle. There he was, mashing the radio button and yelling into the throttle while his train was racing around the layout. Cooler heads prevailed and I instructed Skip Farwell to head out to the Captain's position to bring things once again under a reasonable speed.

It wasn't long after that, we decided we had the tools (two yards each with passing sidings, one in Rogers Yard and one in the HUB yard, both on the outer main) and the experience to try the foolhardy task of running trains in opposite directions on the same track! It started with me and Larrry Madson as the engineers and with Jere Ross as the dispatcher. All went well and Tim Byrne asked to join in while the dispatcher Jere agreed. I now had two trains against me. However, things continued to go smoothly when Bob Blick decided to also join the action. Our dispatcher again agreed, and I hadn't gone more than once around the layout when Mark Harrlow, the HUB yard master, yelled Stop! My train was in the HUB yard shoving another train backward while Jeff Turner was pleading with Jere to be the Dispatcher. At this point Jere, realizing the mess made under his watch, decided to go outside for a smoke leaving Jeff in the dispatcher's seat.

Another time, Bill Barry, our editor, was the dispatcher with multiple trains keeping him quite busy on both mains when, as the superintendent, I decided to run a surprise inspection leaving from the branch line and travelling through the diamond to one of the mains. Oh, but we had fun, and a good laugh in those days!

However, now I'd like to take a moment to thank Bill Barry for his great service being my editor for so many years and our trips together to conventions. I will sincerely miss our working together.

January 18, 2025 RAILFUN

Bruce Robinson gives his presentation about layout planning and operations during the January 18, 2025 RAILFUN. The session was held in the community room of the newly renovated and expanded Marlborough Public Library in Marlborough, MA
Photo by Bill Barry

Closing the Gap on the East Broad Top

By Russ Norris, MMR

The last unfinished section of my East Broad Top model railroad can be seen in the above view. To the left is the back of the roundhouse. The opening in the center of the picture is a pop-up for access to the roundhouse and the HO gauge tracks that descend below the coal mines at Robertsdale, circle around and reappear on the right. Above the HO track is the HOn3 track that allows the narrow gauge loop to access a high bridge before its descent on a long grade back to the dual gauge yard at Blacklog.

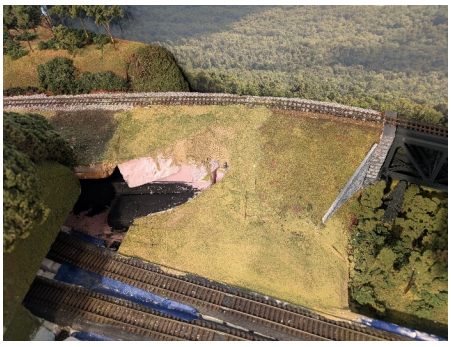
Here is a photo of the same area with the pop-up cover that holds a small church, cemetery and house in the background. You can just make out the HO tracks behind and below the church. The tracks in the upper right are the HOn3 main.

I decided to begin by adding a foam mountain that would cover the HO approach to the hidden loop. Using two-inch blue foam insulation, I cut and layered four sheets of foam, then used a saw and a Surform to shape the mountain.

The curved end of the mountain will descend to a two-track stone tunnel portal. The opposite end was cut flat to blend in with existing mountains behind the pop-up opening. The next step was to paint the foam with latex brown. I then used matte medium to glue clumps of lichen foliage to the foam. I collected the lichen from alongside a road where it grew in abundance, cleaned it, immersed it in a solution of hot water and glycerin to preserve it, finally spraying it with Aileen's Tacky Spray followed by an application of green foam.

The foam mountain was designed to cover the HO tracks that ran beneath it. Above is a view of the pop-up hatch with the mountain behind it.

And here is a view of the mountain taken from the opposite side of the layout. The new mountain fits snugly against the EBT narrow gauge tracks leading to the return loop.



The other end of the newly installed mountain was another matter. The HO gauge tracks descended to a hole under the mountain with little or no scenery.

(Continued on Page 5)

Closing the Gap on the East Broad Top

(Continued from Page 4)

I used a commercial plaster two track tunnel portal for the entrance. I sprayed the stone portal with a dark gray, then gently brushed light gray PanPastel over the stonework. The portal looked terrific, but I still had that gash in the hillside. (Did the pink give it away?) I played around with several options, but settled on wood cribbing using a resin casting.

I built up the terrain by gluing paper strips to support plaster bandage to create the hillside.

I covered the tracks with plastic drop cloth, then gently cut the plaster bandage to the proper size and draped it over the paper supports. Rather than dipping the bandage in water, which would be rather messy with all the scenery already in place, I gently sprayed the plaster bandage with water. The plaster cloth dried in place with very little plaster dust and mess to clean up.

After the plaster dried, I painted the newly sceniced area with a brown latex hobby paint.

After the paint dried, I slathered on a layer of matte medium, then sprinkled various shades of ground foam to create a landscape.

I still needed to ballast the tracks and add trees, shrubs, structures and people. Above is a long PRR coal drag emerging from the tunnel and working its way upgrade.

The upper level, which had been unfinished for years, is now endowed with a lovely gazebo, where the local German band is entertaining some of the inhabitants of Orbisonia and Rock Hill on a lazy summer afternoon. The orchestra is occasionally drowned out by the roar of a passing coal train.

Car building paralysis appeasing the influencers

By Bruce Robinson

Have you ever been in this position? You set out to accomplish something but have run into a dreaded case of mental paralysis. Yup, that is where I have found myself. Let me explain.

About two years ago I decided to pursue the Achievement Program certificate for Cars. I looked up the requirements on the NMRA website and it said that building eight cars was required as follows: four different types of cars, one must be a passenger car, four cars must be scratch-built and four must achieve a merit rating of 87.5 points. I then did a divide-and-conquer approach. Four cars were build using various kits "modified to suit" with three of them put into the contest room for judging at the Mahwah, New Jersey NER convention where they were judged and earned a point score in the high sixties. Contest room judges are known to low ball point scores whenever the word "kit" is written on the entry form, but that was fine as the divide-and-conquer approach was to get the first four cars completed so the second four cars, all scratch-built, could be attacked. These four cars need to be built to a higher standard in order to achieve merit judging points.

Enter Don Howd, MMR and former HUB Division Achievement Program chairman. I want to share this note Don sent me regarding my "need" to build cars. This note is dated January 21, 2014.

"Hi Bruce, Thanks again for inviting us to operate the Valley Junction RR. I had a very nice afternoon. As I mentioned, here are plans for a rail & tie car and a wood outside braced refrigerator. They are pretty straight forward models to scratch-build and will be two attention getters on your railroad. Regards, Don Howd."

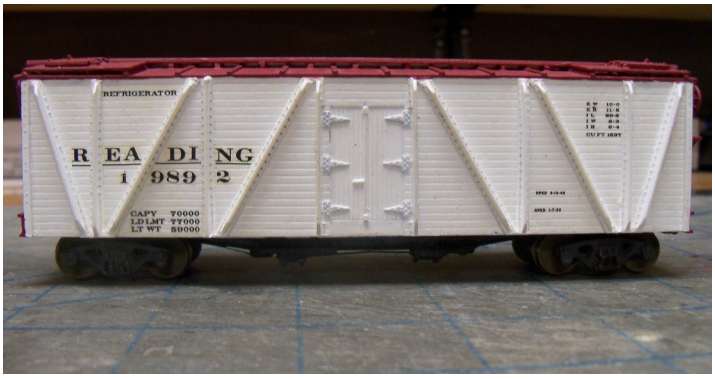
The plans Don included are from articles in Model Railroader magazine. The work car plans are dated October 1968 and the reefer plans are from the January 1957 issue. I completed the work car in February 2024, which was a fun project and is ready for judging. Then construction began on the reefer. The car was completed in April 2024 ready for paint and lettering. The painting proved to be a challenge. Like all of the "older generation modelers" Floquil paint was the norm. Having painted hundreds of models that would have been a simple process. Now, however, solvent based paints are long gone and water-based paints are used today. I have a white styrene car that needed to be painted white on the sides, red on the roof and ends and black on the underside. After several light coats of white, masking the bumpy sides and ends twice, the three colors were on the car and ready for decals. Now comes the problem.

Decals from Champ, Micro-scale and Tichy were used to letter this car.

Decaling is done on a glass top desk with a water bowl, tweezers, hobby knife with #11 blade, dividers, setting solutions and a small paint brush.

The 1957 article has no mention on how to letter this car and no reference to decals that may have been available 67 years ago. The prototype was a Reading Railroad wood outside braced car. The outside braces form triangles on the sides where the lettering has to fit. Many hours of searching decal manufacturers websites yielded no sources for this car. The car was built but could not be lettered with any modern decal sets. Frustration began to set in.

Meanwhile those "influencers" that are close to me (two AP chairs, fellow modelers and some on the VJRR operating crew) began their nudging. "How are you doing?", "How's the decaling coming along?", "Are you going to have these cars done by June?". A year slips by.



Black lettering from three sources were used to get the lettering that had to be applied to fit around the outside bracing.

A lettering set for Reading Railroad, in black, was found on e-bay. Searching through the hundreds of Champ, Micro-scale and SMP sets on hand yielded black Railroad Roman lettering that had to be cut out and applied a single letter at a time. Then more of the required lettering was found on a Tichy set (ordered both HO and N scale sets). Next were two sets of Micro-scale decals to achieve the needed black stripes and white end lettering.

(Continued on Page 11)

Building the EBT Mine Fan House

(Continued from Page 1)

By the 1950's, the Broad Top was a maze of tunnels and surface mines. Mining coal was both dirty and dangerous. Miners working below the surface needed to have methane and other toxic gases pumped out of the tunnels and fresh air pumped in. One of the few surviving structures from those days is the fan house. (An earlier photo is on Page 1 and a more recent photo is shown to the right). Constructed of cinder blocks, it contained an electric motor that drove the huge fan still visible in the ruins today.

My East Broad Top model railroad is set around the end of common carrier operations, in the late 1940s and early 1950s. The fan, located between the tipples for mines #1 and #5, is a short distance west of the EBT main line. However, there were few photos of this unique structure, and scratch building it seemed difficult at best.

Then I discovered a 3D laser engraved basswood kit of the fan house from Monster Modelworks. It was a relatively simple build with four walls and a couple of large screened openings for air, all of which created a structure only 2.89" by 3.5" by 2.65" high. Construction took just a couple of nights. After assembling the walls, I sprayed them with a dark gray color. After the paint dried, I brushed on PanPastel neutral gray shade, that highlighted the cinder blocks. The base was painted with some leftover Floquil aged concrete applied with a brush. Frames for the screens, a wooden door, and shingles for the roof were laser cut with an adhesive backing. The result came out better than I had hoped.

Another view of the fan house showing the cinder block walls and the large intact fan.

The finished model on the layout. Note the large screened openings.

March 15, 2025 RAILFUN

Tim Towle demonstrates his teqniques for renumbering cars and locomotives. This is the second time using the HUBs overhead video setup, which allowed a great view of Tim's demonstrations.
Photo by Bill Barry

Right: The attendees of the March RAILFUN look on during Tim's presentation. The St. Ann's Parish Center in West Bridgewater is easy to get to and had plenty of parking. We hope to see more of you at a future RAILFUN.
Photo by Bill Barry

Tim brought a number of engines to demonstrate his renumbering and decaling handiwork.
Photo by Bill Barry

Second Annual HUB High Green

By Bill Barry

HUB High Green was held May 3-4 with four HUB members opening their layouts to host the operating sessions.

My Son Colin (age 12) and I attended sessions at all four of the layouts. We operated at Rand Hoven's N-Scale Albany & Susquehanna railroad on Friday night. On Saturday we moved up to HO-Scale layouts. In the morning we were at Bruce Robinson's Valley Junction Railroad. Almost all of the operators at Bruce's then had a meal at a nearby diner before continuing on to James VanBokkelen's B&M Eastern route for the afternoon. On Sunday afternoon, Colin and I headed to Ipswich to operate Scott Jewel's Boston Docks and Rocks layout. Colin and I worked together to operate Scott's new O-Scale Boston Harbor layout, while Thorsten Exter operated the granite industry focused On30 layout set on the Cape Ann peninsula in the 1920s.

It was a busy and enjoyable weekend of operations on a number of interesting layouts and we added a good amount of operating time to our AP Chief Dispatcher logs. If you didn't participate this year, you should definitely consider doing so next year. You can choose to operate on one or more layouts, go all-in like we did and operate on all of the layouts.

Colin Barry looks for his train on the lower deck wye, while David Insley's train also leaves from the lower deck area on the right. Note the monitor above Dave's head shows a hidden junction and associated signals.

The operating crew at Bruce Robinson's layout including from left, Tom Williams, Colin Barry, David Insley, Bill Barry, Joe Comuzzi, Buddy Jaworski, Peter Watson and Rich Sisson.

A view of the Scott Jewel's granite themed On30 layout including the map on the wall showing the location and landmarks of the granite industry on Cape Ann. Learn more about this from Scott at the May RAILFUN.

Colin Barry operates the West Lynn Goat in the Bexley yard on James Van Bokkelen's B&M Eastern Route layout.

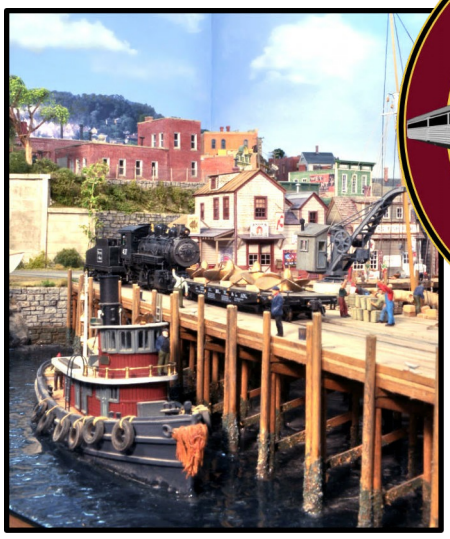
The Valley Junction crew hard at work: David works Portsmouth Yard while Bruce discusses train handling with Colin while Joe and Rich operate trains in Canterbury.

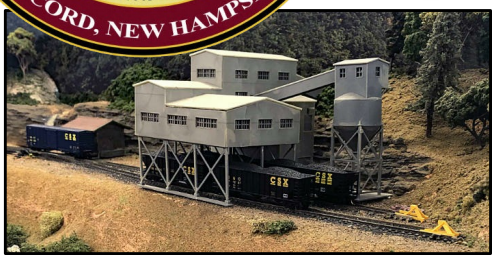
NER **2025 NORTHEASTERN REGION, NMRA MODEL RAILROAD CONVENTION**

SEPTEMBER 11-14, 2025 CONCORD, NEW HAMPSHIRE

Four Days Immersed in Model Railroading

Time to recharge your model railroad batteries? Getting a little stale on ideas to nurture your model railroading interests? How about getting out of the normal pattern? Immerse yourself in a new environment for four days with fellow modelers who have experiences and ideas that can inspire and help you recharge.





Railroad enthusiasts and their guests too, have some special treats awaiting. A variety of tourist train rides will be available, topped by the spectacular Cog Railway up Mt. Washington and the Crawford Notch train from North Conway. Consider a cruise around beautiful Lake Winnipesaukee aboard the MV Mt. Washington or visit museums, mountain tramway rides, rail-bike outings, kayak tours. Travel along picturesque auto routes - such as the Kancamangus Highway and Sandwich Notch Road. Fill out your convention day with visits to quaint country stores and covered bridges.

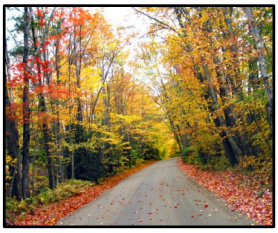


Photo courtesy of Scenic Railriders

Photo courtesy of Winnipesaukee Scenic Railroad

What is special about Concord Flyer 2025?
This convention taps into Concord New Hampshire's remarkable history of intense railroading. Our clinics and workshops will feature northern New England railroading and industries served by railroads. Our layout tours, operating sessions, and model showcases will inspire you. Our non-rail activities make this event fun for the whole family.

Model railroad clinics
Concord Flyer 2025 will feature 45 fresh and original clinics and workshops. Several will be related to northern New England railroads and the industries they served, such as lumber, paper, textiles, and potatoes. Special attention will be given to the Boston and Maine Railroad. Clinics will also be offered on the full range of traditional topics including building structures, cars, scenery, operations, electronics, photography, weathering, and overall layout design and construction.

Modeling with the Masters®
Master Model Railroaders Jim Gore and Carl Smeigh will help you expand your modeling skills. They will give you hands-on instruction and guide you through building a model during the clinic.

See nationally recognized and other notable layouts
Prepare to be inspired! Concord Flyer 2025 will feature many layouts for touring as well as operating sessions. Quite a few have been featured in the model railroad press, while other layouts are impressive in their own right.

Take part in 'Model Showcase' and 'Contests'
Plan to bring one or more of your models to exhibit in the Celebration Room. If you wish, you can ask that your model be evaluated for the model contest, too. Have you taken railfanning photos? Bring your favorite photos to be exhibited and evaluated. During the convention, visit the Celebration Room to be inspired by the efforts of fellow model railroaders.

Enjoy social hours, banquet, and awards breakfast
A special welcome event awaits you Thursday evening. A social hour and banquet will occur on Saturday evening. The banquet will include a featured speaker on this region's rich railroad history. On Sunday morning, enjoy breakfast as contest awards are presented.

Win awesome prizes
Visit the raffle room filled with donated rail-oriented prizes for you to win.

Easy to get to and affordable hotel
Concord's Grappone Conference Center is affordable and comfortable. The adjoining Concord Courtyard Marriott hotel offers complimentary parking, on-site fitness center, an indoor swimming pool, a hot tub, and a business center. The hotel restaurant, The Bistro, is convenient and offers both sit-down and takeout meals.

To learn more and see information updates, visit the Northeastern Region, NMRA website at www.nernmra.org/convention2025

Erich's Electronics Notebook

By Erich Whitney

A DCC DC Power Supply (Addendum)

In HUB *Headlight*, Volume 40, Number 1, Sep-Oct 2023, I published my design for a DCC Power Supply that provides 15VAC for DCC powering systems. Recently, I was designing a power supply for a different project, and I came across a note in the datasheet for the transformer that I thought I should write a brief addendum about, because I didn't talk about this rather fine point in the aforementioned article.

Hidden in plain sight on the first page of the datasheet for the VPM30-3330 Toroidal Transformer is a note under "Output Options" that states, "Primary and secondary windings are designed to be connected in series or parallel. Windings are not intended to be used independently." If you look at the schematic in Figure 1, you will see that on the right-hand side of the transformer the BLK and ORA wires connected as are the RED and YEL wires. In this circuit, the secondary is connected in "parallel". The same is true for the primary, WHT and BRN are connected, as are BLU and VIO. If you were to use this design in a country where the mains voltage is 230VAC, then you simply reconfigure the Power Entry Module to put the primary windings in series by flipping the fuse block the other way around. This would connect the BLU and BRN wires together and the power input would come in on just the WHT and VIO wires. Either way, the secondary stays connected as shown. If you wanted to use this transformer to output 30VAC instead of 15VAC, then you would connect the RED and ORA wires together and take the output from just the BLK and YEL wires.

However, there's something way more subtle in the sentence I quoted above, so I dug into this a bit, and I wanted to make this incredibly minor point about transformers. I looked through the datasheets for several power transformers that have a similar primary and secondary configuration, and I discovered that they all had a similar note in their datasheets about making sure that the transformer primaries and secondaries are meant to be connected in either series or parallel and NOT to be used independently. This applies not only to the toroidal type of transformer I used here but also the more common (and less expensive) laminated iron core types.

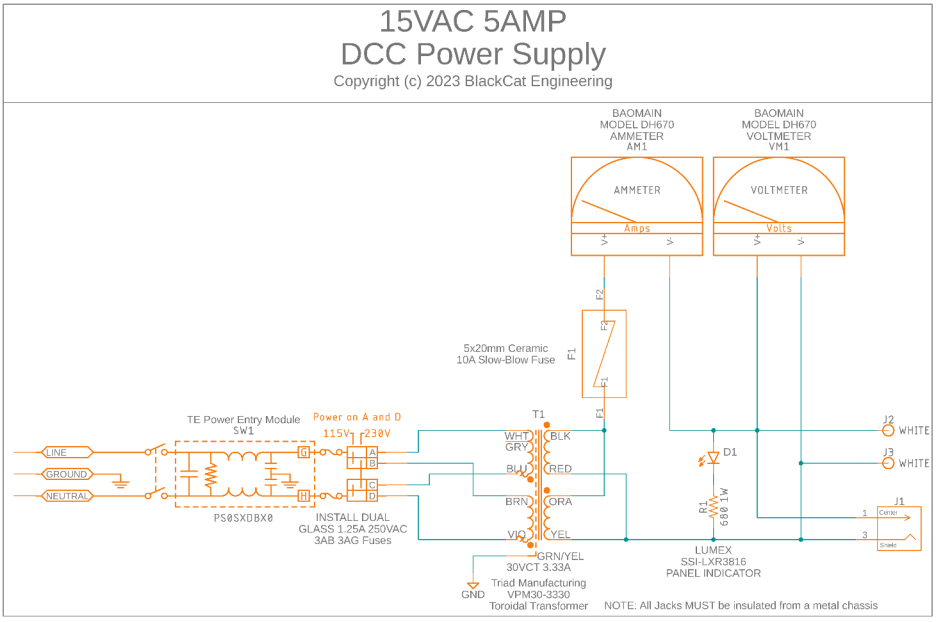
Why does this matter? Fantastic question. I reached out to one of my friends who has been designing analog electronics for decades and the explanation he gave to me was a very polite way of saying, "do not mess in the affairs of dragons, for you are tasty and go well with catsup." We are talking about the black art electromagnetism, magnetic fields, inductive cross-coupling, and eddy currents. He explained that as long as the circuit is "in balance," meaning that the current draw is kept the same, you can use the two secondary windings of a transformer independently, but this is very difficult to achieve in practice. The bottom line is, heed these warnings and use transformers in the manner for which they were intended and don't go trying to be clever. Specifically, what this means for the diagram in Figure 1, you must not use the BLK/RED and ORA/YEL pairs separately to make two 15VAC outputs from one transformer.

It turns out that I had contemplated such an act of treasonous tomfoolery only to be devastated when I discovered the crime that I was about to commit. While I do dabble in the dark art of analog design, I am very solidly in the cult of all things digital. I immediately ceased my plans and quickly fell into line. If you want truly independent voltages, use separate transformers.

Figure 1 Schematic Diagram. Note how the primary and secondary windings in the middle of the diagram are properly connected in parallel.

Conclusion

I know this may seem like an incredibly minor thing to go on about, but I've cleared my conscience and provided you reason to worry about such things. I hope you found this entertaining, if not useful. Even though I am not publishing my column regularly anymore, I am always willing to write on topics of interest to our members so if you have one of these puzzling quandaries, please reach out. In case you're curious, the project that I was working on when I discovered this little tidbit is a very handy multi-channel variable DC bench supply for my workshop. I thought I could be clever and use one transformer to give me two independent supplies. This is just not the case. While not something most modelers need for their bench, I decided I needed one, so if there's enough interest, I could publish an article about that adventure.



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HUB *Headlight*

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From the Modular Superintendent's Desk

By Bob Collins

To quote the Byrds, who were quoting the Bible, "to everything there is a season and a time for every purpose. A time to build up, a time to break down."

Now is the time for the modular group to stand down. It's been a very hectic year that began for the Thomas Division over the summer at Springfield Union Station and finished in Holliston at a special show, coordinated by Dick Ball, for the Holliston Historical Society.

Though the temperatures are climbing, and many people's focus turns outdoors there will be opportunities to volunteer over the summer for the annual rehab and refurbishment of the club owned modules.

To paraphrase another quote, there are many gifts that people have. We have a dwindling group of programming experts who have done amazing work keeping our systems up and running. Going into the next modular year we would love to have some more volunteers who feel called to share their gifts whether that is in programming, model building, wiring, scenery etc. Many hands make light work.

Time to mark off for some well needed rest. For one last song reference, "See you in September."

Car building paralysis appeasing the influencers

(Continued from Page 6)

The old Champ decals were a challenge due to their age and some dissolved in the water so were useless. At this point it would have been cheaper to purchase a modern car from Walthers or Accurail if one was available!

The car is now lettered, ending a year of frustration and paralysis. My influencers will be happy. Adding the ladders and grab irons completes the car. Last step in the AP Cars effort is to scratch-build the last two cars. This project, an MEC 40-foot box car and a 40-foot Reading Railroad box car are already in the works. June is just around the corner!

HUB Division Nametag, *Headlight* Subscription and Donation Forms, Module Kit and Branded Merchandise Store Information

Please see the March-April *Headlight* for all order forms and module kit information along with information about the online HUB Branded Merchandise store.

RAILFUN Updates or Cancellations

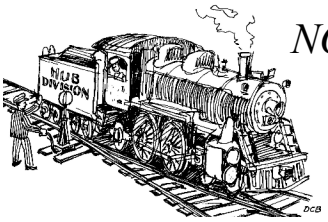
RAILFUN Updates or cancellations will be posted on the division website (www.hubdiv.org) and issued via the HUB email list and via Constant Contact.

HUB Division Calendar of Events (Subject to Change)

2025

May 24 (Sat)	HUB RAILFUN Meeting, 10 AM, Chelmsford Public Library, 25 Boston Road, Chelmsford, MA
Jun 21 (Sat)	HUB RAILFUN Meeting, 10 AM, Marion Gerrish Community Center, 39 West Broadway (RT. 102, Exit 4 off I93), Derry, NH
Jul 20 (Sun)	HUB Summer Picnic, Waushakum Live Steamers, Holliston, MA
Jul 14-19 (Mon-Sat)	2025 NMRA National Convention, Station No. VI, Novi, MI, nmra2025.com
Sep 11-14 (Thu-Sun)	2025 NER Convention, Concord, NH, conventions.nernmra.org/home/home-2025/
Sep 20 (Sat)	HUB RAILFUN Meeting, 10 AM, Location to be determined
Dec 6-7 (Sat-Sun)	The HUB-sponsored New England Model Train EXPO at the Best Western Royal Plaza Trade Center, Marlborough, MA

RAILFUN.....



NO MOTIONS.....

NO SECONDS.....

NO BUSINESS.....

NO YAWNS.....

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