

HUB Headlight

HUB Division Inc., Northeastern Region, National Model Railroad Association - www.hubdiv.org
Volume 38, Number 1, September - October, 2021

RAILFUN TIMETABLE

Presentations: What You Have been Working on During The Pandemic

By HUB Membership

**8 PM Friday, September 17, 2021, Best Western Royal Plaza Hotel
181 Boston Post Road West, Marlborough, MA 01752**

Please join us for our first in-person RAILFUN since February 2020! We'll be meeting at the hotel next to the trade center where we host the Expo show every December. The room location will be displayed when you enter the lobby. Plan on introducing yourself back to the members, letting us know your interests, aspirations and what you have been working on and/or where you've gone. The HUB Division encourages you (and your guests) to bring in your models, dioramas, track plans, or vacation itinerary. In advance, please provide pictures or pdf files to Andy Reynolds so they can be shown off in a PowerPoint presentation. Any questions, contact Andy Reynolds: Railfun.coordinator@hubdiv.org.

Presentation: A Perspective On Scenery

By Mike Tylick, MMR

**8 PM Friday, October 15, 2021, Motherbrook Arts
and Community Center, 123 High St, Dedham, MA 02026**

We will be meeting just two minutes outside of Dedham Square. There is plenty of parking in the back with easy handicap accessibility from the left rear side of the building. The Dedham Historical Society will start us off with a welcoming and brief history of the trains that ran through Dedham.

Mike Tylick, MMR, will then look at forced perspective and unlock the mystery of his award-winning train layouts. From the early Renaissance on, artists have attempted to give the illusion of depth to flat planes using graphical perspective. When these principles are applied to three-dimensional pieces they are known as forced perspective. Mike's techniques with these methods make his scenery appear to extend much further into the distance. Rather than being forced, Mike's methods have always seemed to be part of an obvious and natural way to work

Think about the "Little People"

By Bruce Robinson

I have visited and operated on a lot of fellow modeler's layouts over the years and always enjoyed the experiences. The visits pretty much follow the same theme: "Welcome, come in, look around and if there are any questions just ask" says the host. So, you work your way around the space taking in as much of the layout as possible. If this visit is part of a layout tour there are other people doing the same thing. Some of those people are families with kids. Short kids. Kids whose eyes are too close to the floor to see much.

This got me thinking. I have been a host on Tour de Chooch since 1994 and have seen a lot of families pass through the basement. There is always the greeting as visitors come into the basement, please sign the guest book, look around and if you have any questions.....you get the idea. Many families bring their "little people" with them, but hosts don't really connect with them and their difficulty in seeing the wondrous trains. Hosts get too busy engaging the adults with questions and answers and tend to overlook the small fry. Not much fun if you are only four feet tall!

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Hands-On: Painting People and other MOS Prep

By David "Shack" Haralambou

**8 PM Friday, November 19, 2021, Motherbrook Arts
and Community Center, 123 High St, Dedham, MA 02026**

This will be our second meeting in Dedham Center. Our Museum of Science (MOS) Coordinator, Shack, will give us new updates on our newly extended five-year Museum of Science project, and will then lead the crew in making preparations for the 2021-2022 holiday exhibit. The layouts will be on display from November 2021 until January 2022.

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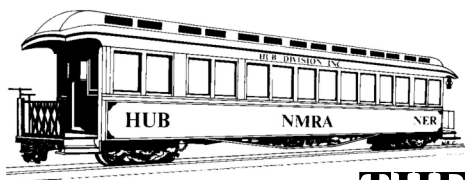
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RAILFUN Updates or cancellations will be posted on the division website (www.hubdiv.org) and issued via the HUB email list and via Constant Contact.



THE PRESIDENT'S CAR

By Manny Escobar

Greetings! As we begin to open up during these trying times, we look forward to getting together without the constant need for “virtual” meetings. I am not sure what the future looks like, but I am hopeful that we can start doing our Division gatherings, conventions and local modular displays in-person this coming fall. While “virtual modeling” has kept us in touch, I believe most of us will agree that there is nothing like meeting in-person.

“Virtual” is not gone and we should embrace both in-person and Internet gatherings. This pandemic is not over and we should be vigilant and follow state and federal guidelines while we are gathering and enjoying the hobby.

One thing is certain: in-person gatherings enable “volunteering”! This organization relies on our members helping out at our shows, regional conventions, modular displays. This is also true for our organization’s department positions. In the past I have noticed that a few members and directors have taken on more than one role. While our current leaders are doing a great job, I would like to spread these opportunities and responsibilities to other members. I know you are out there, and you will be a great help to the Division.

I am going to start a program that was presented to me during a board of directors meeting, to gather information on your individual strengths, abilities and expertise. We will then reach out for you to help our organization. YES we need volunteers, without you we cannot succeed. When I was elected president, I mentioned in the prior *Headlight* that “we needed to think outside the box,” and getting new people involved is one way to do that and make a difference. So, if you

want to volunteer and help our members and organization, please do so.

I have instructed some of our department heads to start reaching out to new prospects, especially the Modular Group. The HUB Division has four upcoming shows and displays, for which we need to get those modules ready and spiffed up. Ron Noret, our modular coordinator, needs your help to do this, especially if you are displaying and attending a particular show. We are planning a “Tune-Up” day during a weekend in September. The success of the Modular Group is very important to our fostering this hobby and showcasing it to the public.

There are a few other things that I want to mention. First, I want to thank David “Shack” Haralambou, our Museum Of Science (MOS) exhibit chairperson, for the great job he has done, and also express my gratitude to those who volunteered during the past shows at the MOS. Second, I want to congratulate Dave Insley, our webmaster, for the new website that he has developed — it is a fantastic resource for all of us in the Division.

Talking about upcoming shows and events, remember that the HUB Division is hosting the NER convention this year in October. Visit www.millcity21.org for details and registration. Our first show/modular display is also in October in Boxborough, MA. Oh, and let’s not forget our “RAILFUN” sessions — Andy Reynolds has put together an exciting program for us. We are trying several new venues, as noted on the cover page of this *Headlight*. Remember to check our website “calendar section” for the latest information on these and other activities.

Looking back, this past July we had our annual Summer Outing and it was packed, even though the weather did not cooperate. We all had a great time, thanks to Mike Tylick, Pete Watson and Dick Ball for organizing it.

These are all examples of our members volunteering and helping out at the Division level to support this hobby. My hat is

off to you all for doing such a fantastic job.

With that, see you out on the rails. Please feel free to contact me any time to discuss your ideas.

“Keep on Chugging”

New Members

The HUB Division welcomes the following new members

- Eric Elder, Brighton, MA
- Scott Oglesby, Westford, MA
- Rodney Feak, Natick, MA

Achievement



At the HUB Summer Picnic: Peter Watson, MMR (left) presents Stan Ames with his Scenery Achievement Certificate. Stan needs one more category to earn his MMR.

Photograph by Shawn Fogg

Fiscal Year 2021 Appointments

Malcolm Houck - Vice President

Gerry Covino - Treasurer

Mike Dolan - Secretary

Peter Higgins - Membership

Bill Barry - Headlight Editor

Andy Reynolds - RAILFUN Coordinator

Ron Noret - Module Coordinator

Dave Insley - Webmaster

Peter Watson - Office Manager/Clerk

John Russo - Expo Show Director

Mark Harlow - Expo Show Manager

Ken Belovarac - Librarian

Dan Fretz - Donations Chairman

Barbara Hoblit - Public Relations

David “Shack” Haralambou - MOS Coordinator

Peter Watson - NMRA AP Chairman

Erich Whitney - Online Activities Coordinator



Shanty Talk:

Return to the D&H Modeling

By Rudy Slovacek

Back in the late 70s, I had the eye-opening experience of seeing Allen McClelland's Virginia and Ohio in one of the modeling magazines. I was particularly smitten by his modeling philosophy of "good enough." While I have entered modeling contests and won a few places (enough to qualify for my achievement award in rolling stock) sometimes "good enough" is the reward itself. After all, as we operate our trains from typically distant views of 3 to 4 feet, that discrepancy in length and some details will not likely be noticed except by rivet counters and hard-core modelers.

So, it was with my modifications to a Bachman depressed center flat to produce the D&H car 16159. While the actual car is some 57'-9" over the end sills, the Bachman car measures out to 52'-9" over the end sills. When I showed a picture of my finished model to Jeffrey Tyrrell, he said I should be making models. His models of D&H prototypes from 3-D printings, at Accurate Custom Finishing, are truly excellent and I own several now.

Earlier this winter I mentioned my modeling effort for the D&H depressed center flatcar and indicated it would be nice to model it in its earlier 1957 paint scheme, from right after the GSC kit was built in Oneonta. After some consultation with Tony Hodun of the Bridgeline Historical Society I decide to do a black car with white lettering. The two separate versions are shown in Figure 1. Now, depending on whether I run the D&H in the early diesel era or post Conrail start-up time frame, I can have an appropriate model of this car in my consist.

Some of us are continually accumulating rolling stock and locomotives with the thought of modifying them to get a more accurate representation of the prototype. Thus, it was several years ago that I obtained two nice models from (I believe

Walthers) of Difco dump cars. One was lettered for UP and the other for CP. The latter being appropriate for the early 90s when CP rescued the bankrupt D&H after Guilford had its fling with ownership. I do own a few CP Alcos, so the red dump car would be appropriate for that era, and I have run them at Springfield.

I decided that my D&H work train could also use a dump car and was quite pleased to see several on the website (Railroad Picture Archives.NET (rrpicturearchives.net)). In one picture, taken on the Delaware and Ulster at Kelly Corners, the D&H RS 36 locomotive number 17 can be seen in a side-on view pulling a Difco car number 32176. By using a ratio between the car's apparent length in the picture and the length between the trucks of the locomotive (whose known prototype length is 40-ft.) I calculated the D&H car to be about 36-ft. over the end sills. Since the Walthers car is some 44'-9" over the end sills, I began by removing 9-ft. from the dump tub and from the frame. To preserve the dump cylinders and undercarriage detail I made three separate cuts to remove material but only two in the tub area to preserve the hinge spacing and the ends. This gives a car that is 35'-6" and is shown in Figure 2, where the full-length CP car is compared with the D&H car pieces.

The hinge spacing is just a tad short on one side but basically unnoticeable unless you specifically look for it. I left the horizontal bar on the tub since this detail was glued on permanently and I lacked the patience to remove it but may come back to it, at a later date. After assembling with epoxy and patching up with squadron putty, I sanded it, then reassembled it for painting a D&H Champlain Blue.

In the midst of the dump car project, I happened to be shop-

ping through the Walther's catalog and came across a nifty Old-Time Coal Conveyor kit (933-3520). I thought it might be just the ticket to go with my McKain Coal Co. truck (in the last issue) for a line-side coal dealer. The package contained three separate sprues, enough to make three separate kits, each containing parts to make a flat trough conveyor for unloading below hopper doors, either for coal or to feed from covered hoppers. It also contains the parts to a longer portable conveyor to load a truck from ground level or to be used in conjunction with the shorter unloading conveyor. It comes cast in a dark green, but I decided to spray mine with a rattle can of Krylon Ruddy Brown Primer after assembly.

The instructions are clear, but I felt a little more detailing was in order. First, the motors are represented by some square boxes, so I made up a couple cylindrical motors from round 3/8" stock. I rounded the ends a bit before gluing them to the boxes, which might be more appropriately viewed as gear boxes. Second, a tiny No. 76 hole was drilled in one end of the motor and a thin strand of wire epoxied in place. A small "L" bent was attached in a hole in the framing and some coiled wire was

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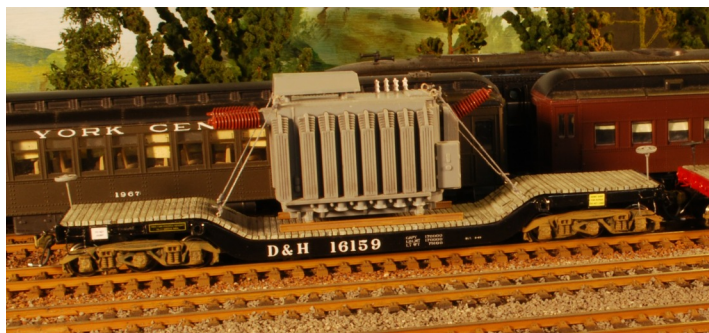


Figure 1: Depressed center 16159

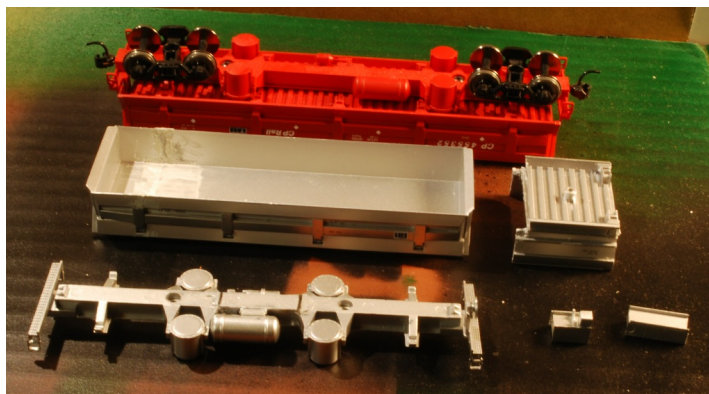


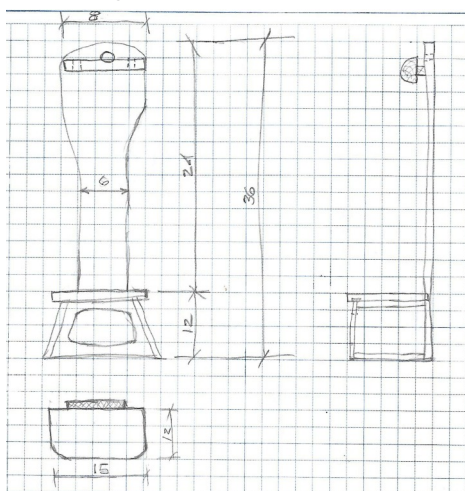
Figure 2: D&H Difco Dump car

Think about the "Little People"

(Continued from Page 1)

This year, which is the 27th year of the Tour, I vowed to do something about the problem. If you plan on hosting an open house, I hope you follow my simple solution to the "too short to see" problem.

After completing a recent cabinet building project there were a lot of scraps of 1/2" and 3/4" MDF left over and doing nothing but taking up space in the garage. Then there was a memory of a trip to see George Washington's home in Virginia. While wandering around the estate we came



The hand-drawn sketch of the initial idea.

upon the horse stables, and inside one of the stalls was a really old step-stool to help mount a horse. On comes the light bulb! Combine these thoughts and I end up with a win-win situation.

The step-stool I built is sized for my layout height and to use the scrap materials on-hand. The height came out as 36" overall with the step set at 12" off the floor. The step is 12"x16" and the base legs have a slight spread to add stability. The back piece is 8" wide with a neck-down shaped in that reduces the width to 6" in the middle to reduce weight and add some pleasing curves. A left-over piece of wood handrail with wood stand-offs attached at the top with screws makes a hand hold for small fingers to grasp. The step was painted dark green and the hand-rail was stained light oak and finished with three coats of poly, sanded between coats for a smooth surface. A photo of my completed stool and the original sketch when the idea hit me.

The step-stool project yielded two wins: little waste went to the transfer station and little folks have a convenient way to see those wondrous trains Mom and Dad dragged them along to see.



The finished stool in position within the layout.

Tour de Chooch, with its thirty-some layouts open to visit, will be held November 27 and 28, 2021. Come visit and bring the "Little People!"

The Tour de Chooch web site is www.tourdechooch.org.

Three Generations of Towles

By Dick Towle

To the Right is a photo of three generations of Towle's at a June 26th exhibition program put on by Yarmouth, Maine - based Maine Model Works. Manager Gregg McFarland worked with me and many others to highlight the hobby outdoors at their Route 1 location and will be expanding the event next year, June 25, 2022. Several clubs from the area including the Eastern Maine Model RR Club and the 470 club, who own several of the locomotives operated by the Conway Scenic, supported the project. Grandson Tim, who has started a business "Weathering by Tim," had a display and items for sale. Dick Towle joined the HUB in 1960 and in the late 60's served as its President, then moved on to NER President 1970-1972. Dick has been told I'm the oldest living NER President (still hanging around and active), something I'm pretty proud of. Son Rick has been a HUB member since 1972, when he was allowed by the then BOD (after much discussion about bringing young people into the hobby) to join as a child. Grandson Tim, now 20, has been a HUB member for several years. Granddaughter Anna is also a HUB member.



From left to right: Dick Towle, Tim Towle, Rick Towle and Diane Towle.

HUB Division Calendar of Events (Subject to Change)

2021

Sep 17 (Fri)	HUB RAILFUN Meeting, 8 PM, Best Western Royal Plaza Hotel, 181 Boston Post Road West, Marlborough, MA 01752
Oct 1 (Fri)	Submissions deadline for the HUB <i>Headlight</i> Nov-Dec issue
Oct 2-3 (Sat-Sun)	HUB Modular Railroad display at the Nashua Valley Model Railroad Association's RailFair 2021, Boxboro, MA
Oct 8-11 (Fri-Mon)	HUB-Sponsored NER Convention, Mill City 21, Westford, MA www.millcity21.org
Oct 15 (Fri)	HUB RAILFUN Meeting, 8 PM, Motherbrook Arts and Community Center, 123 High St, Dedham, MA 02026
Nov 19 (Fri)	HUB RAILFUN Meeting, 8 PM, Motherbrook Arts and Community Center, 123 High St, Dedham, MA 02026
Nov 19 (Fri)	Submissions deadline for the HUB <i>Headlight</i> Jan-Feb issue
Nov 20-21 (Sat-Sun)	HUB Modular Railroad display at the Greenberg's Toy & Train Show, Shriner's Auditorium, Wilmington, MA
Dec 4-5 (Sat-Sun)	The HUB-sponsored New England Model Train EXPO at the Best Western Royal Plaza Trade Center, Marlborough, MA

2022

Jan 8 (Sat)	HUB Holiday Party at the Common Market, Quincy, MA
Jan 21 (Fri)	HUB RAILFUN Meeting, 8 PM, Refer to future <i>Headlight</i> and website for location
Jan 15-17 (Sat-Mon)	HUB Modular Railroad display at the Wenham Museum, Wenham, MA
Jan 29-30 (Sat-Sun)	HUB Modular Railroad display at the Amherst Railway Society's Railroad Hobby Show, Big-E Fairgrounds, West Springfield, MA
Feb 1 (Tue)	Submissions deadline for the HUB <i>Headlight</i> Mar-Apr issue
Feb 18 (Fri)	HUB RAILFUN Meeting, 8 PM, Refer to future <i>Headlight</i> and website for location
Mar 18 (Fri)	HUB RAILFUN Meeting, 8 PM, Refer to future <i>Headlight</i> and website for location
Mar TBD (Sat-Sun)	HUB Modular Railroad display at the Greenberg's Toy & Train Show, Shriner's Auditorium, Wilmington, MA
Apr 1 (Fri)	Submissions deadline for the HUB <i>Headlight</i> May-Jun issue
Apr 15 (Fri)	The HUB Division Annual Meeting and Election prior to RAILFUN
Apr 15 (Fri)	HUB RAILFUN Meeting, 8 PM, Refer to future <i>Headlight</i> and website for location
May 20 (Fri)	HUB RAILFUN Meeting, 8 PM, Refer to future <i>Headlight</i> and website for location
Jun 17 (Fri)	HUB RAILFUN Meeting, 8 PM, Refer to future <i>Headlight</i> and website for location
Jul TBD (Sun)	HUB Summer Picnic, Waushakum Live Steamers, Holliston, MA
Aug 7-14 (Sun-Sun)	2022 NMRA National Convention, Gateway 2022, St. Louis, MO, www.gateway2022.org

Fall Shows and Open Houses

September 4-5, 2021 (Sat-Sun): Seashore Trolley Museum Model Railroad Layout Exhibit Days, Kennebunkport, ME. www.trolley museum.org	October 2-3, 2021 (Sat-Sun): Nashua Valley Model Railroad Association's RailFair 2021, Boxboro, MA, www.nvrra.com	November 6, 2021 (Sat): The North Shore Model Railroad Club's Flea Market (Sat), Taunton, MA, www.nsmrc.org
September 19, 2021 (Sun): The Old Colony Model Railroad Club's 21 st Annual Train Show, Taunton Holiday Inn, Taunton, MA. www.oldcolonyrailroadclub.com	October 23-24, 2021 (Sat-Sun): The South Shore Model Railway Club's annual Fall Model Railroad Show & Open House, Hingham, MA, www.ssmrc.org	November 26-November 28, 2021 (Fri-Sun): Annual "Tour de Chooch" layout tour, Southern NH, Northeastern MA, www.tourdechooch.org
September 11, 2021 (Sat): The North Shore Model Railroad Club's Flea Market, Wakefield, MA, www.nsmrc.org	October 23, 2021 (Sat): The Old Colony Model Railroad Club Fall Open House, Raynham, MA, www.oldcolonyrailroadclub.com	December 2021 TBD (Sat): The Providence Northern Model Railroad Club Open House, Warwick, RI (Club is also open most Saturdays 12-4.) www.providence northern.com

Note: These are presented here for the benefit of members. If you belong to a club and want to promote your open house or show, please email editor@hubdiv.org

Scratch-Building the Robertsdale Engine House - Part 2

By Russell Norris, MMR 638

In Part 1 in the May-June *Headlight*, I wrote about the research and construction of the building. Now we will cover the rest of the project. My super-detailing started by adding lights in the engine house. I bought a set of Miniatronix 12-volt bulbs with brass lamp shades that I thought would look nice suspended from the roof trusses. The plans indicated that the trusses did not go all the way to the peak, so there was adequate room for the wiring above the truss cross beams. I used a spare wall wart transformer for the 12V-dc. A hole was bored with a pin vice in the center of each cross beam for the lights.



At night, with the room lights off, the effect was even more spectacular. I was really pleased with the result!



I ran the leads to the end of the structure furthest from the doors, where it is almost impossible to see the wiring. I drilled a hole, large enough for a piece of plastic tubing, in one corner of the engine house floor and the 2" foam base on which it sits. The wires from the transformer were threaded up the tubing into the engine house and connected to a two prong mini plug. The wires from the lights were similarly connected to the mating plug.

I wanted to super-detail the shop area in the rear addition. Though I had no interior photographs, the plans clearly showed that the tracks ended just past the rear wall of the engine house itself. That left almost 40-feet of space for shop equipment and supplies. Since the roof was removable, I decided to set up a small but adequately equipped machine shop for light repairs. Shelving from Rusty Rail castings was placed against the wall farthest from the aisle, so it would be clearly visible. I had a small HO-scale collection of typical machine shop tools, including a sheet-metal brake, punch, grinder, lathe, even a small steam hammer. I placed these around the floor with a variety of workers.



The four 12-volt bulbs shed sufficient light inside the engine house to be visible even in daylight. Note the studs visible on the inside wall – a detail often omitted by modelers. The light really makes them pop.

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Scratch-Building the Robertsdale Engine House - Part 2

(Continued from Page 6)



There were a few small details left to add to the main building. I cut the smoke vents from 5/16 square styrene tube, added a small square cap on top, and painted the vents black. The vents were located in the front of the engine house, near the doors, indicating that locomotives would have had to back into the building. The plans also clearly showed three brick chimneys along the peak of the roof. I used castings from Tichy for the chimneys, then added metallic flashing from B.E.S.T. around the base of each vent and chimney.

All that remained was to add scenery. I had painted the immediate area around the structure black. I brushed on matte medium, then sprinkled finely sifted cinders that I collected on previous trips to the East Broad Top. This gave a typically grimy appearance to the surrounding area and along the two sets of tracks. Since I model late summer on my railroad, beyond the cinders I used a light yellow static field grass, along with various kinds of ground cover and trees. Steps were constructed from ties soaked in brown Hunterline weathering mix and placed at the two side doors. I added a variety of weeds from Noch, trees, old ties, barrels of grease and oil and trash cans here and there. The result was, one might say, satisfying.



Gas Meter, What Gas Meter?

By Bill Harley

This is the latest addition to my COVID Yard. The building's name will appropriately be "Bostongas" as soon as I find a decal or dry transfer set with upper- and lower-case letters. The building has no back end as it will have to be removed at least every seven years for meter replacement.

The gas meter was like having an elephant at the entrance to the yard without a good solution to hide it. ITLA Scale Models came to the rescue with the release of their modular building parts. For anyone not familiar with ITLA – the buildings are all laser-cut and go together quite well.



Painting was with spray can. The aged concrete is from a Rust-oleum camouflage khaki spray can. A very light wash of india ink diluted about 50-1 was used to tone down the paint.



I am looking for some suitable printed building interior shots as there is no room for any other building interior with the gas meter taking up the elephant's space inside.



A Regional Convention in Our Own Backyard

By David Insley

Have you ever been to a Regional Convention? If you have, you know all that they have to offer. In fact, it is often the case that you must make some hard decisions as to what activities to partake in, since there are so many things to choose from. If you have not been to a Regional Convention, then now is the time to check it out. The HUB Division is hosting this year's convention in Westford, Massachusetts, October 8 through 11. This marks the first time in over 15 years that a Regional Convention has been hosted within the boundaries of the HUB. Think of this as a golden opportunity to get continuing education credits in a hobby we all enjoy. As a bonus, you will get to do it with a whole bunch of folks that have a similar love for this hobby and you may come away with some new friendships that will last a lifetime.

What all is there to do at a Regional Convention, you ask? The highlight for many is the clinics. Think of these clinics as master classes in every aspect of the hobby, from operations, to scenery, to electronics and everything in between. These classes are going to be taught by some masters of our hobby. Tony Koester, NER Region member, and noted Model Railroad author, will be presenting a clinic on Timetable and Train Order operations, explaining how you can get from Here to There on your model railroad. Master Model Railroader and HUB Division favorite, Mike Tylick, will be showcasing his techniques for coloring rock walls, and you will get to bring home your handy work. Master structure builder, Andy Reynolds, will be teaching you techniques on how to build a laser-cut wood kit. Bar Mills has graciously donated Magee's Tire Repair kits so every participant at Andy's clinic will get to take

one home with them. Our own Erich Whitney, master of all things electronic, will be teaming up with Kaylee Zheng to present a university-level class on DCC. You can also learn how to assemble resin car kits and make oak trees that you will be proud to put in the foreground of your favorite scene. These are just a few of the 57 clinics on offer. Check out the complete lineup and the schedule on the Mill City website at www.millcity21.org.

Another fantastic opportunity available at regional conventions is the ability to tour home and club layouts. While we are blessed to have some annual layout tours of many fine layouts, you will be sure to find a few hidden gems that has not been open before. Many of these layouts have been featured in the model railroad hobby press including Bob Gurley's beautiful rendition of the Boston & Maine. Speaking of backyards, our convention layout tour includes several outdoor railroads depicting scenes from narrow gauge favorites. You can spend the entire convention touring the more than 20 layouts that will be open, starting on Friday and running straight through Monday.

But why just be content with looking at layouts? Why not try your hand at operating them too? We have over 200 operating slots available for everyone from beginner to seasoned pro. This year marks the introduction of a new mentoring program that will pair up beginning operators with experienced volunteers willing to help you out. This is the perfect time to give operations a try if you have not done so before. It is also a great opportunity to learn what other people are doing and bring ideas back to your own layout and increase your enjoyment of this hobby.

Anyone that has ever gone to a convention will tell you that while all of the clinics, operating sessions, and tours are great, it is really the interactions with people from around the region that sets conventions apart. As we emerge from one of the worst pandemics in recent times, this feature of our convention will take even more importance as we come back together for the first time in two years. Do not miss this opportunity to get together with friends old and new. You might even learn a couple of things to enhance your modeling. See you in Westford in just over a month. I know I can't wait.

HUB Summer Picnic

The HUB Summer Picnic was held at Waushakum Live Steamers in Holliston, MA, on Sunday, July 18. Though there were some rain showers, everyone appeared to have a good time at our first in-person activity since the February 2020 RAILFUN. Several members were recognized as shown below. Peter Higgins also shared a nice thank-you card from his wife Michelle.



Peter Watson, MMR (left) presents James VanBokkelen (right) a plaque commemorating his six years of service as HUB Division President. Photograph by Shawn Fogg



Peter Watson, MMR (left) presents HUB Headlight Editor Bill Barry with the Don Pierce Award recognizing his long time service to the Division and promotion of model railroading. Photograph by Shawn Fogg



Peter Watson, MMR (right) presents HUB Membership Chairman Peter Higgins with the Don Pierce Award recognizing his long time service to the Division and promotion of model railroading. Photograph by Shawn Fogg

Reflection on 20+ Years of RAILFUN at CSW

By: Andy Reynolds

Last year's Covid pandemic has taken a toll on the world and our group's ability to meet in person at our train clinics, events and modular shows. Hopefully, we may be able to get back to a somewhat normal existence soon but keep reading for more on this later.

For March 20, 2020, Bruce Robinson was scheduled to show off his PowerPoint clinic at The Cambridge School of Weston (CSW) about a track plan and layout he had completed of his rendition of the Stratton Valley Railroad. Ken Belovarac was putting his final touches on a hands-on clinic regarding hand-laying Fast-Track® turnouts to be presented in Barnstable on May 9. As Covid-19 started spreading quickly, I received an ominous call from CSW that our monthly scheduled clinic had been canceled indefinitely. The school has now reached out to say they were re-evaluating their facility rental position that allows off-campus rentals of their boarding school. The board is in the process of securing a new long-term arrangement elsewhere.

After recovering from this shocking news, I began to reflect upon those happy days when we all got together. Back in 2002, almost twenty years ago, I was the Business Manager for CSW, Mark Harlow was HUB president and Rudy Slovacek was RAILFUN Coordinator. Mark and I signed the lease in March for what would become our monthly Friday night meetings at CSW, after holding them for many years at the Wellesley Congregational Church. Our first meeting that March featured Bill Moll lecturing about "The Art and Science of Dispatching," followed in April by Larry Madson's "Building Occupancy Detectors" and my demonstration in May on using Joel Bragdon's "Lightweight Foam Scenery" that I had used that past winter with Gerry Covino on the Tipple HUB module and previously on my Stuffy's Brewery module. Now, 172 clinics later, we saw Erich Whitney's "Module Group Signal Update" on Zoom.

We've had quite the array of programs coordinated with three program managers

— Rudy Slovacek, Ray Barry and myself. Let me reminisce. How many can you remember?



The June 2010 Railfun was a hands-on soldering class led by David "Shack" Haralambou. Jerry McDonald and Gerald Abegg are working on their soldering skills.

Photograph by Diana Walsh.

I reviewed my list with Pete Watson, and we have unfortunately tallied seven CSW clinicians who are now deceased. There were presentations by Dick Johannes (signaling, track layout methods, selecting a theme and design, adding prototype signals and freight far weathering); Harvey Humphrey (Alco history); Bill Powers (ABS signal applications), and Don Howard (achieving Master Modeler, operations on the Atlantic Shoals & Dividing Creek, the NMRA Achievement Program, scenery and scratch-building an HO shed).

Other speakers who are no longer with us were Gerald Abegg (a fast, inexpensive way to make trees), Sam Berliner III (boxcars and the first oil electric diesels, the Long Island Railroad, Marion River Carry Railroad, modeling a "vest-pocket" railroad and NY Harbor rail-marine operations). I particularly enjoyed Jack Alexander's November 2002 slide show "Through the Rockies" on the big screen in the comfy theater seating in CSW's Mugar Center. Thanks to the contributions of these HUB members, many of us were motivated to become better modelers and earn an MMR.

According to my calculations we've had a dozen or so clinicians affiliated with, or employed by the train industry. That would be Gary Paulino, James Lincoln, Jim Tylick, Jeff Turner, Jerry Kelly, Ken Belovarac, Mike Clements, Peter Watson, Preston Cook, Scott Jewell, Stan Ames and Ted Anderson. From dispatchers and office personnel to civil and train engineers, these people brought valuable

insight into the inner workings of how things really run.

We've welcomed manufacturers like Bar Mills, Fine Scale Miniatures, Northeastern Scale Lumber and Rapido Trains. They all have taught us how to incorporate their products into a number of our modules and home layouts. It's difficult to single out any of these as they all contributed to our journey. The broad exposure of live demonstrations, including Rapido's Zoom presentation, gave us a better perception on how and why things get built. These folks have contributed an enormous amount of time to the hobby that I know I've taken for granted, until recently.



Retired CSX Conductor James Lincoln speaks at the November 2011 RAILFUN. Photograph by Bill Barry.

For me, as the RAILFUN coordinator, I get excited about our membership turnout. Finding a motivating clinician is one thing, but then rallying the membership from a Friday night family dinner to attend is also a herculean responsibility. The HUB surveyed its members last year (I published an in-depth analysis last summer in the *Headlight*) and determined that a large majority had interest in more than just one of the eight clinics offered. This tells me we have a diverse group at different experience levels. So, while a voltmeter or simple GIMP interests some, more were interested in something like air brushing, soldering, line-side signals or layout design. Keeping it "simple but interesting" is paramount to a happy group. I concluded that technical subjects are important, but lose audience interest, and may be better suited for Spring training events or presented in a smaller venue.

Another memorable RAILFUN event was in February 2018 when Dick Towle took us on a virtual "Trip Down the Tracks—1955 to Present." We packed the house with 70 people, which showed that

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Reflection on 20+ Years of RAILFUN at CSW

(Continued from Page 9)

members just loved good old-fashioned steam in the New England landscape. Another popular series of clinics was presented by James VanBokkelen who, from 2002 to 2014, gave eight talks ranging from air brushing and voltmeter usage to travel adventures on the Chinese steam railroad in Manchuria. Also, Rudy Slovacek, while RAILFUN Coordinator, gave eight hands-on clinics about dioramas, weathering railroad stock, and modeling Alcos with sound. David “Shack” Haralambou has done six clinics for us as well, including soldering, DCC and weathering summer figures into winter clothes. Many have told me that his most recent Zoom clinic on lighting was the best, and it can now be seen on YouTube via our website. I certainly need to include Doug Scott, a noted railroad photographer for his four slide/music tours of railroads around the globe.



Dick Johannes demonstrates the Ballast King car at the September 2012 RAILFUN. Photograph by Bill Barry

Thanks to newer member/presenters like Geoffrey Graeber (dry decal techniques) and Malcolm Houck (steam engines), and to Steve Erickson, George Landow, and Bob Peters – all from the Little Rhody Division. Taking advantage of Zoom during the pandemic has expanded our distance-learning opportunities including tree-making clinics by Lou and Cheryl Sassi (in North Carolina) and John Burchnall from the Cincinnati Division. Also, in March 2021, project managers Bill Schneider and John Sheridan from Canada-based Rapido brought us inside their manufacturing facilities in both China and Canada! We’ve also had standout shows from Erich Whitney and Bruce Robinson,

who both joined the HUB Division because they were impressed by our knowledge base and programs.

A RAILFUN theme resonating throughout the past two decades also has been the NMRA Achievement Program and other awards. In addition to the presentations mentioned above by Don Howard and Gerald Abegg, other speakers on the subject have been Mike Tylick and Pete Watson. — All are MMRs. John Doering, NER President, gave us the challenge of increasing the number of Division members earning their Golden Spike Award. Most recently, Russ Norris gave us an impressive Zoom show: “How I Decided to Go for My MMR” that has been recorded and is a must-see.



Folks await the start of the February 2014 RAILFUN presentation by David “Shack” Haralambou about module scenery. Photograph by John Doehring

Sorry if I’ve missed people, but it wasn’t intentional! I love being part of everyone’s Friday nights, as well as some sprinkled trips to Cape Cod, with hands-on programs and layout tours. Many of us learned a lot and many assisted newer members with their knowledge and guidance in the tradition of our mission statement. We all have missed the camaraderie of an early evening dinner out, the coffee breaks, and visiting layouts along the way



Jim Kerkam asks questions about Mike Dolan’s custom crossover at the September 2016 RAILFUN. Photograph by Andy Reynolds.



A number of HUB members work on painting figures for the MOS layout at the October 2019 RAILFUN. Photograph by Andy Reynolds.

to meetings. We all miss the information-gathering of club gossip, cheering on new AP Certification awards, and the volunteer sign-up sheets for modular group shows.

Our current plan is to meet and greet again this year in Marlborough next to our winter Expo facility at the Royal Plaza Hotel on the third Friday of September (the 17th) at 8PM. Bring what you’ve been working on so we can all see. In October and November, we will be meeting up at a new location in Dedham. If you have ideas for a new venue, let me know. Again, this is your organization and we want to hear from you. See you in September!



Russ Norris looks on as Dick Towle and Bob McCauley work on weathering at the April 2019 RAILFUN on Cape Cod. Photograph by Andy Reynolds



Members listen to a presentation at the June 2019 RAILFUN held at Bar Mills Scale Models in Maine. Photograph by Andy Reynolds

Treasurer's Report Fiscal Year Ended: June 30, 2021

By Gerry Covino

To say this past year was different would be an understatement. I hope all of you are well and continue to practice safe measures as we all to monitor CDC guidelines and Commonwealth of Massachusetts directives.

We are looking forward to a more functional year with the planned resumption of the New England Model Train EXPO (NEMTE) in December, along with modular group activities, in-person RAILFUN meetings and hosting the Northeastern Region Convention, MillCity21 in Westford on Columbus Day weekend.

We did conduct activities this past year in support of our members and some of our Train Hobby partners. We successfully held online RAILFUN meetings using the ZOOM platform, but our biggest challenge was supporting the Museum of Science (MOS) "All Aboard Trains" exhibit. There was a three-week interruption right at the height of Christmas and we had limited volunteer participation due to member's health concerns along with restrictions imposed by the Commonwealth and the Cities of Cambridge and Boston. Even so, we still delivered a viable exhibit that helped the Museum have a limited, but successful financial year. The exhibit involvement did help our Division meet financial needs for the year by only tapping modestly into our reserves to meet the Division's operating expenses. Unfortunately, even with our limited activities we still have fixed expenses that must be satisfied.

Looking forward to this fiscal year, we hope to see a return to our strong financial support with increased programs. Dan Fretz continued to be busy during the pandemic securing additional items for the donation table, which we hope will have a successful return at the NEMTE. Speaking of NEMTE, we are seeing a strong desire from vendors to be at the show and we anticipate many modelers, closed out of shows this past year, will anxiously return.

Dave "Shack" Haralambou will continue in the role of MOS Coordinator and has successfully negotiated a five-year contract with the museum that allows the Division to maintain its presence at the MOS while supporting the model train hobby and promoting our activities.

With the return of in-person RAILFUN activities, the pandemic has brought a new challenge and opportunity. The Cambridge School of Weston has decided to not rent their facilities to outside groups in this post-pandemic era. Andy Reynolds, RAILFUN Coordinator, is in the process of searching for other locations in the Division area to host these meetings. We have secured a location for the September meeting at the Best Western Royal Plaza Hotel in Marlborough. The October and November meetings will be at Motherbrook Arts and Community Center in Dedham. Watch your emails, the website and the *Headlight* for subsequent RAILFUN meeting locations.

Finally, the Board urges each of you to make, or continue making, an annual financial contribution to the HUB Division and consider leaving part of your railroad collection to the HUB. The HUB Division is a registered 501(c)3 non-profit organization that can accept donations,

which might be tax deductible. You will find a contribution form later in this issue of the *Headlight*.

You also have two other ways for contributing to the Division:

1. When making personal purchases over the internet using PayPal, you consider designating and adding a small donation to the HUB for its continued financial success.
2. Use Amazon Smile for your Amazon purchases and select the HUB Division as your non-profit choice. Amazon Foundation will contribute to the Division at no cost to you.

Your financial support as well as your volunteer time will continue to ensure the ongoing success of the organization and the programs offered to you. The Board greatly appreciates your generosity.

We hope this year will mark the return to a very enjoyable and successful modeling season.

Account Balances Year-Ended June 30, 2021

Checkbook	\$ 909.10
General Savings Account	538.44
Reserve-Life Savings Accounts	55,238.44
Restricted Savings Accounts	3,094.13
Program Checking Account	237.05
PayPal Account	722.94
USPS Permit Account	2.49
Total Funds Available	\$ 60,742.59



Support Your Division!

Shanty Talk

(Continued from Page 3)

hung from the hook as if it were an electrical cord. A drop of epoxy beaded on the end served as the electrical plug. The conveyor trough and bars were painted with a combination of silver for bare metal and rust. The chutes and wheel rims were painted silver to also give the look of exposed metal. A thin coat of 1/2 dilute white glue was painted on the trough and sprinkled with some finely

crushed coal dust. Not enough to cover, but enough to settle in the corners. I also made a sheet-metal collector hopper for the long conveyor to catch the short conveyor pitch or any material that might be hand shoveled on to the conveyor (Figure 3). These are the kind of details I enjoy dressing up to make a scene more realistic. They

will be a part of my clinic on "Details" in the upcoming Convention this fall.



Figure 3: Conveyor Kit Assembled

Erich's Electronics Notebook

By Erich Whitney

HUB Module Tester

I've decided to take a break from writing about modular signaling to introduce a project that I completed about a year ago. This is an idea that I had rolling around in my head for quite a while, and when I suddenly found myself stuck at home with no model train activities in the foreseeable future, I decided to it make it happen.

On a very important note, and timely with this discussion, I'd like to point out that we have published a new release of the HUB Module Specification, which includes all of the updated wiring diagrams for the most recent module wiring harness. This update includes all of the changes I could track down from the past 12-years since the previous version was published. Please take a moment to visit the new HUB Division website and check out the HUB Module Group section. I know that the module section of the website needs a lot of updating and if anyone is interested in helping with the content, I'm sure our Webmaster, Dave Insley, would appreciate the help.

The current module wiring harness has 82 connections. While it is certainly possible to test these by hand, I'm basically lazy, so I came up with what I think is a pretty clever device to test these connections. It's self-contained, portable, and really easy to use. The brain inside this device is an Arduino Mega 256 computer board, which is very common in the electronics hobby, and it can be used for so many fun projects! All of the tests are written in software (using the Arduino C programming language). The nice thing about doing things in software, is that I can easily adapt it as the module specification evolves. The tests

are actually described using an Excel spreadsheet that shows by color where each wire goes. I then wrote a Python program to convert the spreadsheet into the Arduino C language. This was an incredibly fun project to do and admittedly a little overkill. This implementation demonstrates some creative Arduino programming examples, but I'm not going to get into the programming details in this column. However, if you're interested and want to learn more, I will publish the design on GitHub so you can download the entire project and look through code, schematics, parts list, etc. All of the information for this project is open source and free so I'll put a link to this on the HUB module group website when it's available. As we gear up for showing our modules again, I'll do my best to let HUB module group members borrow the tester, or if we can meet in person, I can walk you through the testing process.

Module Wiring Tester

The tester is the device that does the testing and the module being tested is called the DUT (Device Under Test). This tester is designed to only test modules (DUTs) that are completely disconnected from any other modules and there can be no sources of power connected to the module (no batteries or other power sources). When you think of testing a wire, the first thing that probably comes to mind is checking whether or not the wire is connected. But it's possible that a wire can be connected, but to the wrong place. The tester exhaustively tests all of cable connections between both ends of the modules as well as all of the connections to the track segments that make up the outer main, inner main, and local track. It also tests the module network connections (those white and blue RJ45 jacks). The only tracks tested are the ones that are specified in the HUB Module Specification and thus are the only tracks the tester is concerned about. Anything outside of these three tracks is left up to the module owner to test; however, if any of these tracks cause a short on one of the three tracks, it will be reported.

The tester has a 4x20 LCD display, a 4x4 keypad, and a red reset button. I like having a reset button — it's there for when the software goes terribly wrong. At the bottom of the tester are the power and USB jacks. There is no power switch, just plug it in.

(Continued on Page 13)



Figure 1: HUB Module Tester



Figure 2: Tester USB and Power



Figure 4: West/Left Harness Connector Jacks



Figure 3: Back of Tester RJ45 Jacks and Center Track Segment Harness Connector



Figure 5: East/Right Harness Connector Jacks and Center Track Segment Harness Connector

Erich's Electronic Notebook

(Continued from Page 12)

Since the LCD display is so small and the Arduino needs the USB plug for programming, you can optionally connect the tester to a laptop which gives you the option of using the Arduino debug window that has room for more verbose messages. However, I didn't want to require the use of a laptop in order to make the tester usable, so I tried to make the messages simple enough to read on the small screen.

Module Wiring Configurations

Modules can be wired in one of two configurations: Passive modules are wired to pass along the signaling system's block information, but the module does not contain a signaling node. Active modules are wired to provide block detection and connect to the signaling system with an active signaling node. Note that this tester does not directly test any signals, however, it does test the wires that provide the connections between the signaling nodes. Signal tests can be performed by using the JMRI and/or CATS software. But that's a topic for another column and I said I was taking a break from those...

There are 16 connectors on the west (left) wiring harness, 16 connections on the east (right) wiring harness, eight connections on each of the west (left) RJ45 jacks and eight connections on each of the east (right) RJ45 jacks. In addition to the wiring connections on the west and east side of the module, there are nine track segments that are connected to rails on top of the module. Each of the three tracks gets a pair of alligator clips connected to the west, center, and east track segments. In addition to testing the module wiring, the tester has a built-in loop-back test mode so it can test the test harnesses to make sure the tester is good. I also built a small board that emulates all of the active and passive wiring connections to test all of the test modes and it provides a good way to demonstrate how the modules should be wired per the standard. I used an actual wiring harness and terminal blocks from a module kit so you can see the wiring without having to look under a module.

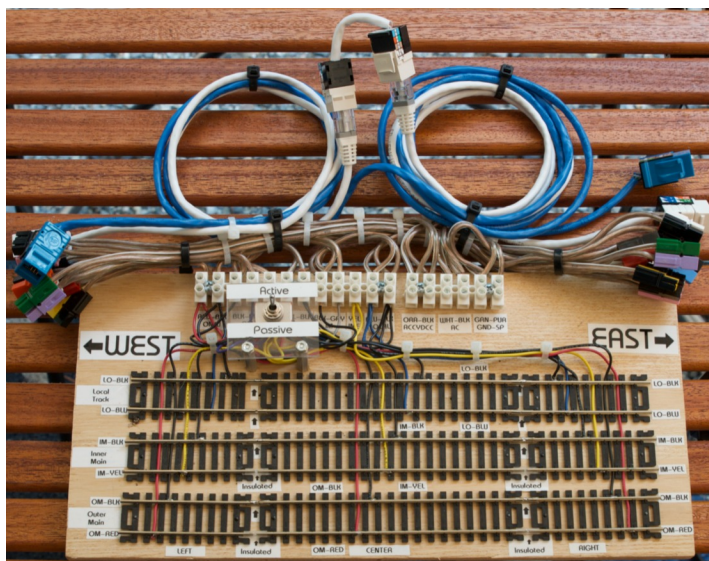


Figure 6: HUB Module Tester Test Module

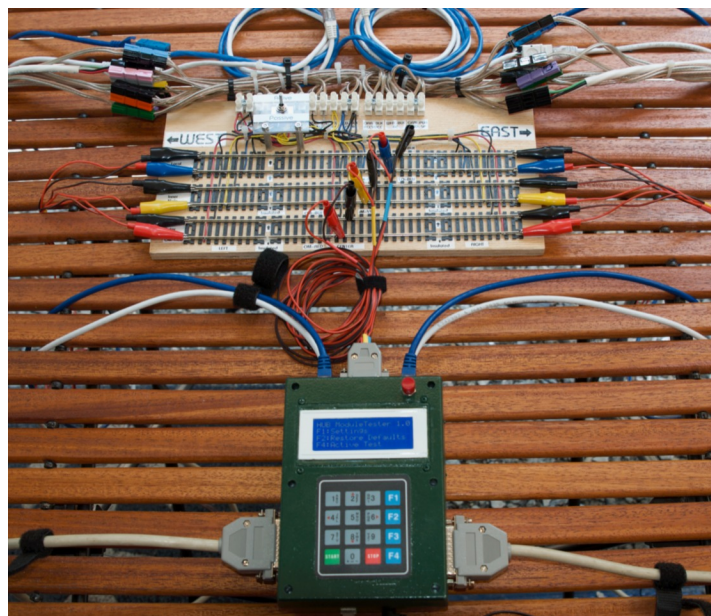


Figure 7 HUB Module Tester w/Test Module Connected

How the Tester Works

Since the tester uses a computer to test the wires, the only thing the tester uses for measurement are the logic levels zero (0 volts) and one (5 volts). When the computer tests a given wire, it puts a logic level (0 or 1) on that wire, and it reads the value of all the other wires and checks each value it reads against a table of expected results. This is what the spreadsheet is for. The spreadsheet contains a large matrix of every wire, one entry per row and one entry per column per wire. Every place a wire is connected to another, there's a '1' in the matrix. Everywhere else, there's a '0'. So, the computer knows that for every connection, it should only see a connection where a '1' is shown in the matrix. In addition to testing for open or shorted wires, the tester tests with both '0' and '1' values for each connection in order to be able to detect what are called stuck-at faults. A stuck-at fault is a fault where a wire is stuck at '0' or '1' and thus won't change value. These faults can be caused by a short to some other wiring connection and are probably rare, but it literally added two lines of code to run them, so I figured, "why not?"

There are other more subtle conditions that the tester software accommodates in the "F1: Settings" menu shown in Figure 1. One option you need to specify is whether or not there is a local track. Even if you don't have a local track on your module, you still need to make sure the local track connectors on the west and

(Continued on Page 14)



Figure 8: Tester Ready to Start Loopback Test

HUB Headlight

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Erich's Electronic Notebook

(Continued from Page 13)

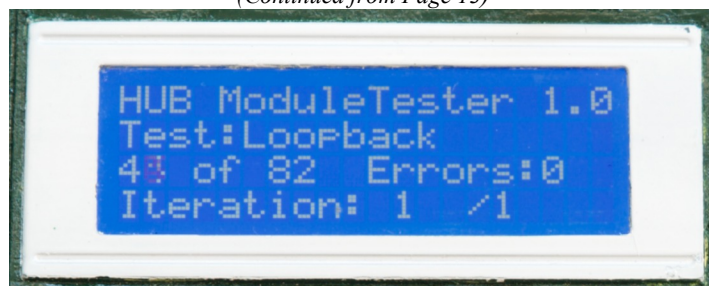


Figure 9: Tester Running Loopback Test



Figure 10: Tester Loopback Test Completed Successfully

east side of the module are working, but there won't be any local track connections so the tester will ignore any error that's telling you the local track isn't connected on the top of the module. Another condition has to do with the AC accessory bus. If you connect a load to those pins, they may look like a short circuit so you can mask those connections — just make sure you check them manually with a proper ohmmeter.

Testing a Module

The procedure for testing a module is fairly straightforward:

1. Make sure the module is completely disconnected (no power, batteries, etc).
2. Connect all of the test harnesses to their corresponding module harnesses.
3. Connect the alligator clips to the nine track segments (west, center, and east segments on each of the outer main, inner main, and local tracks).
4. Plug in the tester power
5. Select the module type (active or passive) from the "F1: Settings" menu
6. Select Start

If there are any errors found, the screen will show you the first error and you can use the keys to scroll through each error. Note that the tester will simplify the list of errors to remove redundant entries. For example, if one of the wires on the left harness is open, it can show up as an error for every wire it connects to. But you only have to know that one of those tests failed so the tester reports the first one it finds and doesn't make you scroll through all the other errors caused by the same fault.

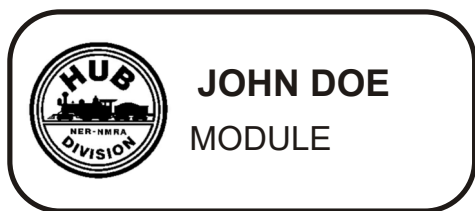
Conclusion

This was a really fun project to build, and I hope that if you have a module, you'll want to test yours! Keep an eye out for future HUB events where I'll bring the tester and we can hopefully get back to the business of displaying our modules.

Make checks payable to:
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YES, I am happy to support The **HUB Division, Inc.** to foster railroading through displays, modeling and educational opportunities to members and the public at large. I show support with the enclosed gift.

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The HUB Division offers to its members a complete packaged module kit for \$155. The kit has everything you need, including all pre-cut lumber, hardware, a complete wiring harness for the DCC and inter-module connections, a panel-jack and wire, and even the roadbed and track! A module is the perfect solution if you do not have the space for a full-size layout or just want to experiment or learn new techniques without committing the time and money to a larger setup. Please contact Mark Harlow at modulekits@hubdiv.org with additional questions and to order the module kits.

By Barbara Hoblit

To order HUB Logo branded merchandise, the HUB Division is partnering with Queensboro to bring you a personalized shopping experience. Within the HUB store you will find shirts, hats, outerwear and accesso-



ries in an array of sizes (men's, women's and youth) that you can purchase directly online and have sent directly to you.

In order to access the merchandise for ordering, please visit the website at:

<https://nmrahubdivision.qbstores.com/>

Create a log in with your personal details
and start shopping.

Each week, Queensboro will send a promotional email to all registered HUB Online store users with special pricing on selected sale items. Sale periods normally run for about three days.

Shipping rates to the contiguous US are always a flat \$7.95

Please reach out to me at PRDirector@hubdiv.org if you have any questions or concerns.