HUB Division Inc., Northeastern Region, National Model Railroad Association - www.hubdiv.org Volume 32, Number 1, September - October, 2015

RAILFUN TIMETABLE

Presentation: Digital Command Control (DCC)

By David "Shack" Haralambou & Dick Johannes 8 PM Friday, September 18, 2015, Cambridge School of Weston

Come join us at our season-opener as two of the HUB Division's DCC experts will each discuss aspects of DCC and various applications of it on home layouts.

For the first half, "Shack" will review the various components that comprise a DCC system for small layouts to large layouts. DCC has advanced beyond controlling sound-equipped locomotives. There are now DCC modules for controlling switch motors, semaphore signals and crossing gates, sound-equipped freight cars, turntables, etc. Your operational desires, creativity and budget all dictate how far you automate your layout using DCC. For those with a small layout, you can add a starter DCC system for about \$200 to control DCC-equipped locomotives. You will also learn about how to operate a DCC throttle and practice controlling a locomotive on the Modular Group's test track.

For the second half, Dick Johannes will discuss how you can extend the functionality of DCC by using the free Java Model Railroad Interface (JMRI) suite of software programs. DecoderPro is used to configure your locomotive DCC decoders and to keep a roster of your locomotives. Layout Automation is used to automate your layout by controlling signals and throwing turnouts. PanelPro is used for operating US&S-style-based CTC control panels that reflect the real-time status of your layout and control it like a prototypical dispatcher. The CATS extension to JMRI can be used if you prefer a modern CTC panel.

Presentation: NY Harbor Rail-Marine Operations II By Sam Berliner III 8 PM Friday, October 16, 2015, Cambridge School of Weston

As a follow-up to February's presentation on the Brooklyn Eastern District Terminal (BEDT), Sam Berliner, III, will return to give a well-illustrated presentation on the famed CNJ Bronx Terminal along with lesser-known Erie and Lehigh Valley terminals and several others. Modeling in HO, N, and Z (1:220) will be covered as well.

If you attended Sam's February 20th Railfun Presentation, you will remember that one of the final slides showed the Round (29-sided) Freight House. Fast Track's Tim Warris has been building an HO-Scale model of the CNJ Bronx Terminal that was on display at the last Amherst Railway Society Railroad Hobby Show.

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The map to Cambridge School of Weston appears on page 14.

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Leafing Trees by Jeff Gerow

A clinic given at the 2015 Spring TRAINing in Taunton, MA

This started when I was innocently purchasing new versions of "leaves" at the Scenic Express booth. Peter Watson was standing next to me and asked how I used them. I gave him a short version of what follows. He asked if I would do a clinic and I knew I was stuck, I mean, he was right there... and if he thought people would be interested...

(Continued on Page 8)

What I learned about the NMRA and the MMR By Andy Reynolds

had some confidence that my years of craftsman kit buildings and scratch buildings were good, but I never thought about entering anything into a contest. Everyone told me "You should have your MMR!" To me the NMRA and the MMR were secret codes, known by the elite, and noted all the time in various publications. I had gone on the NMRA website many times, but mainly to take a look at Photo Galleries, as my interest has always been with a fine eye to details. Granted, I had clicked on "Education" with its Beginner's Guide "Introduction to Model Railroading." I then pondered though track basics, wiring basics, scenery and structures, scales, rolling stock and so on. The list and links just kept rolling!

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THE PRESIDENT'S CAR

By James VanBokkelen

Hello, members of the HUB Division and readers outside our group. I hope you're all having a pleasant summer; I'm enjoying a good fruit crop and weather pleasant enough that I'm still able to work on my attic HO scale layout.

The most important thing the HUB Division does for its members is organize interesting activities. Besides our regular menu of Railfun night activities, over the past few months we've had a Dinner Train on the Cape Cod Central Railroad, a special visit to George Selios' renowned Franklin & South Manchester layout and a cookout for members at the Waushakum Live Steamers.

Ever since it was first organized over 25 years ago, the HUB's Module Group has been a big draw for a variety of members:

- Some bring equipment to operate.
- Some only have a place in their current life for a small piece of a model railroad.

- Some are gaining experience towards launching construction of their own layout.
- Some like sharing the activity with their children.
- Some like acting as the model railroading community's ambassadors to the general public.

When the Module Group first started out in the late 1980s, we only did a few shows per year. By the mid-1990s, we could put together a layout reliable enough, large enough and good looking enough for the largest shows, owned and operated by a crew that delivered what show managements needed. In 2000, we were invited to travel overseas for the first time. Since then we've set up many times, sometimes in unique locations in New England, the Midwest, Canada and Europe.

Our Module Group schedule has been pretty stable in this decade, returning to familiar venues in familiar seasons. Recently, we've had a little trouble getting enough modules for some of the smaller shows. I'd like to hear from the HUB membership in general:

- What do you like about the Module Group and its activities?
- Is there anything we're doing that's made you less interested?
- Is there anything we should be doing that would get you more engaged?

Email me at president@hubdiv.org, call me at (603) 394-7832 or catch me at a HUB event to talk about this in person.

Until next time, High Green!

Fiscal Year 2015 Appointments

David "Shack" Haralambou -Vice President

Gerry Covino - Treasurer Barbara Hoblit - Secretary Peter Higgins - Membership Bill Barry - Headlight Editor

Ray Barry - RAILFUN Coordinator Dick Ball - Module Coordinator

Peter Watson - Office Manager/Clerk Dick Johannes - Expo Show Director

Mark Harlow - Expo Show Manager Ken Belovarac - Librarian Rudy Slovacek - Donations Chairman Gerald Abegg - NMRA AP Chairman Tim Garner - Public Relations Director Dan Fretz - Webmaster

NER Convention

The NER is not hosting a convention this year, and instead is working with the MER to attend theirs. Please see the latest Coupler and the convention website at www.delawarevalleyturn.org

Member Update

Longtime Hub Division member and module group activist Bill Goldthwait reports that he's still in therapy for his leg problem. Good luck, Bill; we hope to see you at some of this Fall's events.

May Railfun



Attendees at the May Railfun look at Mike Tylick's lighting setup. Photo by Bill Barry



Gerry Covino and Rosemary Mezzocchi enjoy the train ride. Photo by Mary Reynolds

Cape Cod Dinner Train



Mary and Andy Reynolds are all smiles. Photo by Mary Reynolds



Shanty Talk Winding Up or Down By Rudy Slovacek

It's hard to believe but at the time I'm sitting down to write this, the summer will shortly be half over. We were begging for summer during our blizzards, and now it's here. Although somewhat cool, we just completed a stint of three hot days to qualify as a heat wave. It's the perfect time to retreat into your cool basement for some modeling, reflection in the shade or lounging at the shore. Funny title for the column, you may be saying, but it's not really.

In the space of less than one year, I've been contacted by no less than four people who want to downsize or find a good home for their train collections. This does not include those who passed on, leaving their relatives to deal with their stuff. Ever since Bill Parker passed on and left the HUB a sizable collection,

I've been involved with the disposition of the items donated to the HUB. I'd like to take a minute to distinguish how our donations table differs from the White Elephant table. Members and the public can place items for sale on the White Elephant table after they've affixed a tag with their asking price and their name. If sold, the HUB collects the money from the buyer, deducts a handling fee and pays the former owner at the end of the

the manpower to do this at our two-day fall show in December. It is a service we provide both to the public and to our members.

The donation tables work differently, in that the system is similar to the Salvation Army. At any time, during the year, an individual can arrange to have their donated items picked up. As long as they provide an itemized list with their name and address, they will receive a receipt that may be used for a tax deduction on the donated items. The HUB Division can do this because it is considered a charitable organization by virtue of its 501(c)3 status with the government. Then once a year, at our fall show, we make the donated items available for purchase at some very good sale prices. Both modelers and dealers alike have come to expect some very fine bargains at our donation table. The HUB's objective is to move all the items in a single weekend because we really don't have a place to store things long term. All transactions are cash only and prices are set by fixed color stickers. There is no paperwork to fill out and the money goes straight to fund our various public activities.

If you're looking for some extra cash, the White Elephant Table is for you. Alternatively, if you could use a tax deduction, then you should consider the donation route. I mention these two approaches here as we begin the model railroading season this fall. I actually participate in both venues. Like many modelers over the years, I've collected more stuff than I'll ever use so I sell it at the White elephant table. I would rather see it used than collecting dust so I usually let it go for a song.



not model railroaders and are ill equipped, are sometimes left to dispose of large model railroading estates. In

this case I run the donations table differently. With a little advance planning our younger and financially strapped hobbyists can find some treasures to build their railroad empires. Think about it and start planning now. Whether, you are winding down your involvement in the hobby, or winding up your involvement in preparation for a move and change of life style, the process can be fun and rewarding either way.

Okay, now that we've looked at one side of the equation that may benefit you as a HUB member. What about the other side? Our donation program makes it possible for us to raise money for a number of our public programs. Where else can members and the public learn about all types of modeling topics, from signaling, weathering, freight car fleets, new building materials and others at our free Railfun nights? Also, our free website, www.hubdiv.org, provides all kinds of information on upcoming activities and links to sites with technical information, not to mention free access to downloadable versions of our HUB Headlight publication. (Yes I said free!) By making this information free and available, the HUB Division is one of the few NMRA organizations to keep our membership statistics at about 400 members. Some other Regions and Divisions have suffered declines over the years, but I won't go into it now, suffice it to say we must be doing something right. I would suggest that if you have a friend who has expressed an interest in your model railroading

> hobby, that you bring them to a Railfun night, so they can discover for themselves the appeal of the HUB Division.

Finally, and most importantly, I get to be a part of a process that takes those wonderful cherished hobby items out of basement, attic or boxed storage and, for very reasonable prices, puts them in the hands of new, young and old modelers, just like you. Stop by the donation The HUB supplies the tables and RS3 hauling coal down the mountain. Photo by Rudy Slovacek tables at our New England Model Train Expo in December and say

Often one's family and friends, who are Hi. Better yet, volunteer to help out, and learn how you can get more out of being a participant in this great hobby.

HUB Division Calendar of Events (Subject to Change) 2015

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	2015
Sept 18 (Fri)	HUB RAILFUN Meeting, 8 PM, Cambridge School of Weston, Weston, MA
Oct 1 (Thur)	Submissions deadline for the HUB Headlight Nov-Dec issue
Oct 4 (Sun)	HUB Modular Railroad display at the Pepperell Siding Model Railroad Club Show &
	Open House, Pepperell, MA
Oct 16 (Fri)	HUB RAILFUN Meeting, 8 PM, Cambridge School of Weston, Weston, MA
Oct 22-25 (Thur-Sun)	
Nov 7 (Sat)	HUB Modular Railroad display at the Wellesley Community Center, Wellesley, MA
Nov 20 (Fri)	HUB RAILFUN Meeting, 8 PM, Cambridge School of Weston, Weston, MA
Nov 21-22 (Sat-Sun)	HUB Modular Railroad display at the Greenberg's Toy & Train Show, Shriner's Auditorium, Wilmington, MA
Nov 24 (Tues)	Submissions deadline for the HUB Headlight Jan-Feb issue
Dec 5-6 (Sat-Sun)	The HUB-sponsored New England Model Train EXPO at the Best Western Royal Plaza Trade Center, Marlborough, MA
Dec 12-13 (Sat-Sun)	HUB Modular Railroad display at the National Heritage Museum, 33 Marrett Road, Lexington, MA
	2016
Jan 9 (Sat)	HUB Holiday Party at the Olde Colonial Cafe, 171 Nahatan St., Norwood, MA
Jan 15 (Fri)	HUB RAILFUN Meeting, 8 PM, Cambridge School of Weston, Weston, MA
Jan 16-18 (Sat-Mon)	HUB Modular Railroad display at the Wenham Museum, Wenham, MA
Jan 30-31 (Sat-Sun)	HUB Modular Railroad display at the Amherst Railway Society's Railroad Hobby
	Show, Big-E Fairgrounds, West Springfield, MA
Feb 1 (Mon)	Submissions deadline for the HUB Headlight Mar-Apr issue
Feb 19 (Fri)	HUB RAILFUN Meeting, 8 PM, Cambridge School of Weston, Weston, MA
Mar 18 (Fri)	HUB RAILFUN Meeting, 8 PM, Cambridge School of Weston, Weston, MA
Mar 19-20 (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 Headlight May-Jun issue
Apr 3 (Sun)	The HUB-sponsored Spring TRAINing show at the Embassy Suites, Winter St., Waltham, MA
Apr 3 (Sun)	The HUB Division Annual Meeting and Election - following SpringTRAINing
Apr 15 (Fri)	HUB RAILFUN Meeting, 8 PM, Cambridge School of Weston, Weston, MA
Apr 20 (Sun)	HUB Modular Railroad display at the Lions Club 20th Annual Model Train Show,
	Hooksett Cawley Middle School, 89 Whitehall Rd., Hookset, NH
May 20 (Fri)	HUB RAILFUN Meeting, 8 PM, Cambridge School of Weston, Weston, MA
Jun 17 (Fri)	HUB RAILFUN Meeting, 8 PM, Cambridge School of Weston, Weston, MA
Jul 3-10 (Sun-Sun)	2016 NMRA National Convention, Indianapolis, IN - HUB Modular Railroad display?
Jul 15 (Wed)	Submissions deadline for the HUB Headlight Sep-Oct issue
Jul TBD (Sun)	HUB Summer Picnic, Waushakum Live Steamers, Holliston, MA

Fall Shows and Open Houses

September 20, 2015 (Sun): The Providence & Worcester Railfan Club & Museum Annual Model Railroad Show, Charlton, MA, www.pwrfc.net	November 27-29, 2015 (Fri-Sun): 21st Annual "Tour de Chooch" layout tour, Southern NH, Northeastern MA, www.hubdiv.org/ tourdechooch.htm	
September 27 2015 (Sun): The Old Colony Model Railroad Club's 15th Annual Train Show, Taunton Holiday Inn, Taunton, MA, www.ocmrrc.com	Railroad Museum Holiday Open House,	
October 4, 2015 (Sun): Pepperell Model Railroad Club Show and Open House, Pepperell, MA, www.psmrc.org	Northern Model Railroad Club Open House,	

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

Lessons Learned with HUB Division By Rich Pitter

Left Massachusetts four years ago to retire in Eugene, Oregon. The move was a difficult decision to make because of the many enriching experiences I had had with the members and activities of the HUB Division.

I rejoined the NMRA in 1999 after talking to people who were running the modular layout at one of the local train shows. I started attending Railfun meetings, and in 2001 took over as Editor of the HUB Headlight. My reason for doing so was, in part, self-serving. I am hard of hearing and was feeling left out of Railfun meetings in the echoing church social hall, back in those days. I figured that if I became Editor, I could get to know members better as we worked to get their articles ready for the newsletter. It worked; I learned tricks and techniques from several fine modelers that way. Most of those ideas made it into the newsletters.

I never did become a regular with the modular group, but I admired the group spirit and appreciated the need for standards. I was also awed by the modular group's forays into foreign countries with their modular layout.

During Rudy Slovacek's time as Railfun Coordinator, I gave one talk and three hands-on clinics; I also gave a clinic at Spring TRAINing in 2009. Although many members do not feel confident standing in front of a group and talking about something, preparing such talks is, for me, an excellent way of learning the subject even better. Also, I've learned things during the clinics themselves, either when something didn't work as I had expected or when someone in the audience volunteered a better way of doing things.

Presently, I am the Superintendent and Editor of First Division, Pacific Northwest Region. The division covers southwest Oregon, an area the size of South Carolina that holds fewer than 100 members. It is



called "tunnel country" by local model railroaders, and the division consists of many pockets of 2-20 modelers in a valley; transportation between valleys is iffy during the winter because of high passes and likelihood of rain with significant probability of snow.

So, from eight Railfuns annually, I'm getting used to two gatherings. Needless to say, many modelers prefer to join local model railroad groups that do things more often, and some figure they aren't getting enough value to renew their NMRA membership. Taking a cue from another division in PNR, I am encouraging the concept of sub-divisions. I'm taking the lead for the Eugene sub-division, holding monthly meetings at my home or in my community center (did I mention that I live in a retirement community?). I am also falling back on my HUB experiences and promoting

building of a modular railroad layout. We're small now, but hopefully we'll gain members (NMRA of course), by operating in public places and train shows. We're building Free-Mo modules, so at Regional and other gatherings, we might team up with other groups.

Another lesson I've learned from HUB Division, and Art Ellis in particular, was to get on with my home layout. Sometimes I put it off for awhile, but a thought keeps gnawing at me: If not now, it will be never. I have named my layout Shadow-Ft. Mills so that its heralds state "SFM," to remind me that I'm shooting for the moon. I am building a two-level HO scale layout in an 11'-0" x 12' 9" spare bedroom, with an 1875 western mining theme. It includes DCC, aisle space for people with wheelchairs or walkers (remember: retirement community), provisions for visitors to run trains with their smart phones if they choose, two non-intersecting continuous routes for visitors (or their grandchildren), a four-track double-ended staging yard, and more. I'm writing this before the PDX 2015 National Convention in Portland, OR, but I'm hoping to learn enough about LCC to also incorporate that into my layout. I've intentionally limited lines of vision so that operators and visitors will focus on the local scene. but I need to know that the main line is clear to the next passing siding before sending the train forward. I am designing upper quadrant semophores, somewhat anachronistic for my era, to accomplish that, and LCC may be the way to go.

In Memoriam David C. MacDonald

We have lost another long-time member of the HUB Division. David MacDonald passed away the morning of June 9, 2015, at the age of 85. Dave was one of the founders of the HUB Division, and served as the first HUB Division President. He was also the first recipient of the Don Pierce Award. David was a veteran of the U.S. Navy, serving aboard the USS Vulcan. A lifelong resident of Weymouth, he owned and operated the South Shore Hobby Shop in East Weymouth for many years. He was also a member of the Wiscasset Waterville and Farmington Railway Museum.

Donations may be made in Dave's memory to the Wounded Warrior Project, PO Box 758517, Topeka, KS 66675,



Dan Fretz was railfanning in Harrisburg, PA in mid-July and saw this locomotive painted in a special scheme by Norfolk Southern to honor the First Responders on 911. It was crossing the Rockville Bridge headed to Enola Yard.

HUB Division Signaling Committee Update

By Dick Johannes & Gerry Covino

The members of the signal committee felt it would be valuable to L provide an update to our HUB membership on the status of the Signaling Project. This project began five years ago with a fact-finding mission to the NMRA National Convention in Milwaukee, Wisconsin. Since then we developed a design, implemented it (with continued testing & debugging,) and presented it twice at NMRA National Conventions in Grand Rapids, Michigan and Cleveland, Ohio. In addition, we showed the signaling operations at the National Train Show in Cleveland using the HUB modular railroad. We have all learned a great deal as we translated an idea into a working solution. Signaling remains one of the more uncommonly implemented features on model railroads. It might be more appropriate to describe signaling as "one component" of the rules of train movement.

Jeff Gerow and Dick Johannes were the committee's designated attendees at the Milwaukee convention. Dick attended all 20 of the clinics on signaling and several of them more than once. To this day, Dick recalls ideas from a "panel of experts" session and still refers back to that handout to refresh his memory. One of the things taken away from that session was that all the presenters stressed developing your signaling to be as close to the prototype as possible, just as one does when modeling a locomotive, a structure or a piece of rolling stock. To that end, with the exception of the LIRR, operating using TT&TO on a 2010 era modern layout is a bit like having the roads on that layout filled with Grandt Line horses and carriages.

From the beginning of this project, the hope was to provide members with:

- 1)An understanding of how prototype railroad signals are used,
- 2)An operating example on the Modular Layout,
- 3)The requisite knowledge to perform installations on their own home layouts.

The plan also included using the spadework on the modular layout as an educational or training phase for this project.

As we embarked on this project, it became evident that a "Bus" standardization similar to that completed with DCC would be essential, especially for modular railroads. The "bus" in this case is usually referred to as an "automation" or "layout control" bus. However, progress on this front has been slow. Recognizing the work developed so far by the HUB Division, Dick Johannes has been nominated to represent modular railroad interests, similar to the HUB Division's, as a member of the committee CMRI SIG that is vying to become a ratified "automation" or "layout control" bus standard for the NMRA.

As we move into the operation of the Hoosac, Upton and Boston in the 2015 season, it is the committee's hope and intention that the focus shifts from wiring and methods, to actually being able to take advantage of the system operationally, and of course, having fun as we play with the trains.

Model railroad operations have definitely become a more prominent aspect of the hobby. Besides simply running our trains, we are trying to give the movement a rationale and purpose. What is quite surprising to many is that operations can happen on remarkably compact and small layouts, including shelf layouts. The rules for operations vary and to some extent are dependent on both the layout's locale and era. Era is more important from an operations standpoint, especially as it relates to signaling.

Remember, signals were a later development in railroads. The LTC Rolt's Ball signal was developed in 1840 and the semaphore, a year later, in 1841. Integration of signals had to await the invention of the track circuit by William Robinson in 1870. The widely visible triangular G-type signals didn't come about until 1925.

An early form of operations was Time Table and Train-Order (TT&TO) operations, facilitated by the advent of the telegraph in the 1850s. While considered anachronistic on a modern railroad, the LIRR continued its use until September of

2012. TT&TO is perhaps still the most widely used in model railroading. There are very detailed books on this subject, and a very concise and informative description can be found in the second edition of Tony Koester's book "Realistic Model Railroad Operation" [Kalmbach]. Also, the "Operations Road Show" of the Grand Rapids modular group is a tremendous opportunity to learn highly prototypic TT&TO operations on a single track segment of the Wabash RR, which is available to members at the NMRA National Conventions.

As Robinson's train circuit and signals become more prevalent, and the ability to avoid trailing and opposing movement collisions advanced, both Automatic Block Signaling (ABS) and Absolute Permissive Block (APB) disciplines came on the scene. These signaling advances provided spacing and train safety, but did not authorize actual train movements. Where trains either crossed or diverted, we found stations or towers. Their "levers" controlled both the turnouts and signal heads, or semaphore arms, and required railroad personnel to operate them. These have come to be known as control points. Sedgwick Wright then had the ingenious idea that multiple control points could be centralized and controlled from a single location. Centralized Traffic Control (CTC) was born. On the evening of July 27, 1927, the first CTC installation, on a 40-mile stretch of track with 12 interlocking plants, allowed two moving passenger trains to pass without written orders. This occurred near Fostoria, Ohio, on the Toledo and Ohio Railroad, a wholly owned subsidiary of the New York Central.

CTC was originally handled by physical CTC panels like the ones built by the General Signal System or Union Switch and Signal Company. Today, those panels have been replaced by computer generated graphics.

This brief history is valuable. First of all, much of the growth of signal technology and CTC owes its very existence to reliable train detection. That is true for the modeler as well. The approach to prototype and model detection is similar, namely to detect current flowing across

(Continued on Page 7)

HUB Division Signaling Committee Update (Continued from Page 6)

one rail, to the other, by way of the axles of a train. On the prototype, the axles are metal and conduct current without modification, but on the model, we want current flow, but very little of it, so as not to cause a short circuit. To this end, unlike the prototype, we modelers have to modify most of our equipment. Any equipment with lights or a motor is fine, as current flows from one rail to other allowing for detection. However, more ordinary pieces of rolling stock will go undetected without adding a high resistance short across one or more of the axles. At first, one might think that if the engine and caboose were detected that would be all that is needed. However, both on the prototype and on the modular layout, block size might be quite small and the engine, the intermediate rolling stock and the caboose could all be on three different detectable blocks

This is illustrated in Figure 1. Each of the four panels shows the location of the train and the appearance of the CTC panel immediately below. In this example, the engine is powered and the caboose lighted, but the intervening cars have no resisted axles, and are thus "invisible." At Time 1, the entire train is in Block 1, and all is well. However, as the train advances to Time 2, the locomotive and caboose are detected in Blocks 1 and 3, but the intermediate cars go undetected in Block 2. Not only are signals inappropriate, as the yellow signal protecting entrance into Block 2 should be red, but the CTC panel makes it appear as though two trains are following one another with one block of spacing. At Time 3, it now appears that the trailing train is gaining on the lead train but will stop appropriately at the front of Block 3. Of course, this doesn't happen as can be seen at Time 4. The dispatcher shrieks in horror as a train has now run a red signal into an occupied block and a rear-end collision appears imminent. Fortunately, it's only the lead train's own caboose, but the problem raised by undetected cars should now be more understandable.

It would be great if all cars had a resisted axle, and I suspect that will actually be true one day. In the interim, we just need

to live with odd signals occasionally, and/or just operate most of the sessions without heeding them. I would suggest, however, that we consider reserving a time slot at most setups where only trains with resisted wheels run and during that period, we would, in fact, heed the signals.

The other tool to maximize the utility of the signal system, be it ours or that of any other railroad, is communications. There was a time when we used hand-held walkie-talkies at almost every setup. Adding voice communications between vardmasters and the dispatcher is critical, and communications to the engineers would be a good idea as well.

TT&TO operations have a lot of forms and paper to fill out. Modelers tend to ignore a good deal of it, but you can't ignore it all. CTC has minimized the paperwork, but a bit still exists, and for good reasons. It is noteworthy to me that one of the forms that goes way back, and is still in existence today, is the Form A, or clearance form. This is the form that defines a train as a "real" train and not just a timetable entry. It is also the form that allows the train to exit the yard of origin onto the mainline. This form is basically the data on the sign-up sheet, plus a few other details, such as the number of the lead engine, the number of cars, and where it will originate (e.g. Upton Yard, Boston Yard, etc.). I can't tell you how much help

it would be to the person trying to dispatch, to know a train is about leave Boston Yard, prior to noticing the occupancy on the mainline. If the Dispatcher knows what the train is, he or she can make that appear on the dispatcher panel and know what train, with what engineer, is where. That is precisely what a dispatcher panel is designed to accomplish.

Finally, it is important for many more modular members to become comfortable with being the dispatcher, or at least understand the task. To this end, we are constructing a learning test track. It will support a 1950's style US&S lever-operated CTC panel as well as a modern computerized display. We hope to use this at a variety of settings that might include Railfun, Modular setups and signal committee meetings. This will help interested members see what a dispatcher faces and how they do their work on a CTC panel. This testbed will also support an electrically operated locked turnout. Operation of these turnouts on the mainline is also a highly protocolled activity and worth emulating as a learning activity.

The effort to get signals onto a modular layout has been long task, but those of us on the signaling committee are ever grateful to the support and patience from the HUB BOD, and even more importantly, the Hoosac, Upton and Boston modular members themselves.

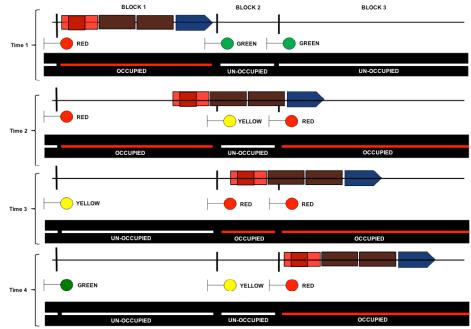


Figure 1: Effects of unrecognized occupancy on the CTC panel and signals.

Leafing Trees (Continued from Page 1)

I've had some Noch Elm Leaves in my drawer for quite some time - it seemed like a neat idea, and they looked like leaves in the container. But using the normal ways of attaching foliage (matte medium, white glue, hair spray or even spray adhesive) only left clumps that looked more or less like ground foam, so no real benefit.



Parallel story: I got some Woodland Scenics (WS) Hob-e-Tac® adhesive, thinking it was Scenic Accents® Glue that I actually wanted. They both

have the ability to hold a figure in place - but also be removable and movable. So I had this Hob-e-Tac \mathbb{R} that



and movable. So I had this Hob-e-Tac® that "stays tacky forever" and happened to look at the label where it says "For Trees; Apply to armature ends (let dry)..." and I thought, maybe this would be good for my foreground SuperTree® full size trees. I tried it out on a couple of small trees near my new station, and it looked great. I need a couple of full-size trees on my layout and I was going to make them after I had finished the rocks where they were to be "planted." Now my

schedule would be moved up a bit as I needed a couple to demonstrate.

These trees start as sage brush branch "armatures" with SuperTrees[™]® (from Scenic Express). You can purchase the sage armatures from several sources now, such as Scenic Express. I got them the more fun way, while visiting the Southwest, I pulled off the side of the road and went out into



an adjacent field and harvested some. I packed them into a box and sent them to me (they weigh practically nothing). I am getting near the end of my supply so I have an excuse to visit again soon. An alternative is to contact a fellow railroader in the Southwest and plead.

SuperTrees[™] are available widely. They are wonderful, natural-looking, scale trees and/or branches. I used most of the more bushy "trees" in a value pack (\$30 list) to make the two big trees I'm showing.

Here's how to make the trees. First rinse off the chosen sage armature and let dry.

You will need a lot of SuperTrees® so pick out the "fattest" ones as they will have the best, most complicated branch structure that will fill out the tree fastest.

Links to Scenic Express Products: http://www.sceneryexpress.com/SuperSage-Material/products/1012/ http://www.sceneryexpress.com/SuperTree-Material/products/1007/ Look closely at the SuperTrees® and remove all the pods you can find (the neat little "scale" branches seem to pop out of pods that sometimes fall off and sometimes don't). The pods look like 1/2"- 3/4"long, narrow scoops and will be noticeable on your finished tree.



You will need to soak the SuperTrees® in matte medium so they will be more flexible and able to withstand being on a layout, and gluing. I soaked the ones I used for about 30 seconds, twice; with drying "upside down" in between. I rigged some clothespins over my basement work sink for the drip-drying. The matte medium was diluted at least 5:1, and perhaps as much as 8 or 10:1



Once the parts are ready, you can begin attaching branches – you may want to look at a real tree or a picture of one while you're doing this. The intent is to use the "branches" of the sagebrush as the core of your tree and make the SuperTrees® into the smaller branches and twigs. Some good SuperTrees® "trees" can become whole branches, branching off the sage branch. Other more sparsely foliated SuperTrees® are ripped apart and the branches applied singly or in bunches (if they're really sparse...).

(Continued on Page 9)

Leafing Trees (Continued from Page 8)

To attach the branches, I use hot glue. I was using normal (high) temp glue, and some of what I say here may not be with low true temp hot glue. Grab the branch or group of branches with tweezers. Push out a little



ball of hot glue and stick the end of the branch or branches into it. You would like to have a little ball of glue on the end of the branch with none on the sides (it's possible, but requires attention). You also want to break the little thread that is following the drop of glue onto your branch. I found on my gun that passing the glue bubble over the tip again would often melt the thread. Anyway, once you have the hot glue happily on the branch, move it quickly to the spot you've already chosen (yeah, that quickly). Then you have to hold it for 15-20 seconds or so to make sure it's cooled down enough and holds. This is very time consuming and literally a pain in the back, but well worth the effort.



What you end up with is a big tree with many smaller branches leading out to twigs. Unfortunately there are shiny clear threads from the hot glue. If you use back light (look through the tree at a light) you

can see them well – they are easy to remove with fingers or tweezers. Make sure to remove them or you will have vines growing in your tree.

Hopefully you've been a bit random with your branch placement, so it looks like a real tree, but the wrong color! Super-Trees® are generally too light to be used as is. I mix some twig color paint, starting with



some craft store white to which I add black and brown in small blobs until I get a color that, when painted on an armature's thin branch, disappears. I thin it a bit for my airbrush and try to get every angle.

Now you get to use that Hob-e Tak® that "stays tacky forever". You want to paint a small glob at the end of each Super-Tree® "twig" on the outside of the tree, or anywhere



the sun would get to, if your armature is as split as mine was for this finished tree. Take your time and even go over some areas twice, you really don't want to miss any spots. You now have to wait for the glue to dry to clear, the bottle says 15 minutes but it will actually be much longer - but it's OK remember "stays tacky forever"



Finally, the really fun part. I loaded the color of leaves I choose for this (medium green) into a cinnamon shaker (that I had scarfed up earlier when it emptied). I shook and shook the shaker and leaves over the tree -- from every

angle - all over a plastic tub to save the unused leaves (the ratio seemed to be about 1:10, there was a lot to recover).



And that's it, a truly beautiful tree that will even stand up to close-up photography. This one's about 85 scale feet tall, perfect for the foreground rock face I plan for it.



What I learned about the NMRA and the MMR

(Continued from Page 1)

I noticed there were links to "Why Plan Ahead" - the Achievement Program. I was able to sort out that there was such a thing as a Master Model Railroader. but as I prodded though the various tabs, I began to think there was just way too much information, and I simply became confused with the terminology. It seems like a major sensory overload. I simply couldn't figure out where to start! I then began to hear various members talk about how easy it was. They'd say things like, "Just go to the website. There's plenty of information there. You need this and that. You probably are almost there with all the work you've done."

It was like I was hearing mumbling at the end of a tunnel, but I still couldn't make out what I needed to do, or how to start. I jumped back onto the NMRA site and then looked at the "Golden Spike Award." What was that? The site recommends starting here, but then it goes on to say, "Although not an actual AP category, its requirements are structured along the same line." This seemed ambiguous. So it won't get me to the MMR?

I found more pull down menus and application forms. Golden Spike requirements included rolling stock, structures and scenery, and civil & electrical engineering. I had questions, but seemed to lack any guidance. The Golden Spike link states, "...this is the easiest, and for most people, the first AP award that they earn." Hmmm... Is that so? I didn't know anyone personally who had this. I also had heard things like, "If you use this here, you won't be able to use it over there." So I was concerned that just maybe, if I got credit on these. I wouldn't be able to use them where it counted in the real AP categories.

I had had similar experiences in looking at contests, where I had emailed someone, and then I would either not get a response or get referred to someone else. A recent example was when I went 700 miles to an NMRA convention in Cleve-



The "Wolcott Meat Company" diorama as it looked when it was submitted for judging

land with a module, and found out there up, and proceeded to the judging room. that I needed a paper in front of it the next day to be judged. I just never seemed to know when and how to qualify. I wanted recognition, as well as feedback, so I could do better. I lacked something, but couldn't see though the crystal ball.

I decided the next thing I'd do, would be to go to another convention. A regional one was just a few months away! I admit, I could have spent "more time" going back to the NMRA and NER websites. I did poke around. I saw the application forms, but I felt so insecure

and so confused. I then got cold feet. I wasn't going to I felt sorry for enter! myself. I knew I was good, and I had many things to show. What module? What diorama? What building? "No", I said to myself. "I iust can't do it."

I packed my River Plate Station module that was just a modular group necessity, and as an afterthought, 3I ran down the stairs to the basement and pondered again. Which of you shall I take? I grabbed the Wolcott Meat Company diorama and put it in my car and then went online and printed a blank NER Contest Sheet. Hooray! I did it...!

Upon arrival at the convention, I still didn't have a clue what I should do.

I had been told before that paperwork was important, but I had a blank entry form. I was hoping, I think, to get some guidance when I got in the room. Silence. So I filled out the entry form, now known as #211, with the keen interest at purging my soul of the intimate knowledge of my diorama that I still clutched in my sweaty hands. I started filling out the form. It seemed to go well. I started feeling confident, I filled in all the lines. Finally, I saw other people bringing in items and I started feeling like I belonged.

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Andy's entry form. Note the score for each category annotated in the left margin.

Where do I go? Do I go at all? I nerved

(Continued on Page 11)

What I learned about the NMRA and the MMR

(Continued from Page 10)

Rolling forward, through the weekend and to the awards dinner, I couldn't believe it when I heard my name. "Andrew Reynolds - First Prize -Diorama Category." I received 88



points. Conformity to a prototype - 14 of 25 points. Construction - 33 of 40 points. Details - 19 of 20 points. Appearance - 18 of 25 points, and then Scratch Building - 4 of 15 points. Boy was I happy! My first contest and I had won. Won what? I wasn't sure, but I won. There was a speech about AP and MMR, and that a couple of people had done enough to get their MMR. Next, all the Master Model Railroaders at the convention became real. They gathered at the ceremony line and welcomed the "Class of 2014 MMRs." Everything clicked. Here were the people I realized I should be looking up to. These were the people I needed to talk to for advice. I got it – finally...



The Judges said my structure was too small for a slaughter house and would not have had missing roofing.

I realized afterwards that a diorama didn't count towards an AP, now known to me as an Achievement Program. What I realized now was "I need seven I simply took for granted, should have of eleven Achievement Certificates" to get to my NMRA Master Model Railroader title.

This breaking of the ice was crucial. People in the past said they'd be willing to help, but I see now that it didn't seem real to me until I saw a group of people, no different than me, who had done it.

My next challenge was to create a PowerPoint presentation for a clinic at a RailFun meeting, and show people my award as well as the critique from the judges. Also, I needed to explain to others the importance of having mentors to guide us on our way to MMR. I know many of us in the HUB division are proficient enough to earn the title, but just need a helping hand to get through the quagmire of paperwork.



Judges said my track needed more ballast and the tops of the rails should be shiny.

At the Railfun presentation, we reviewed the NMRA Modeling Contest procedures by examining the grading and judge's comments. We had several people who were MMRs, NMRA judges, or Achievement Certificate holders at the meeting. By sharing what I did, and what I didn't do, I hope I closed the gap on the mysteries. I realized I could have done better by probably carefully explaining how I had done things that showed on my earlier slide presentation. I realized after the fact, that I could have and should have attached a paper and written my heart out about all I'd done and why I chose not to do things on the diorama. I thought they wanted short answers on the short blank dashes. I recognized that I may have done better by just being judged on a building instead of the entire scene. One judge said that some items

been mentioned, since the judges couldn't tell. That's where a mentor would have helped me do better.

I hope I have helped just a few NMRA members to get a grasp on what this award of Master Model Railroader means to our hobby. I feel our organizations can do a better job at reaching out as mentors not only to new members, but also to those of us who need some guidance. There are more people out there like me, who have all the skills and craftsmanship, people who have been volunteering at shows for years, who just need a bit of guidance. We just need a push to get through that tunnel, and help us throw the right road switches to move us to the MMR junction. I know they are out there. I've seen them, and I've heard their voices.

I will start mentoring now. For those of vou who don't know what judges look for, here were the Judges' Comments on my first place winning diorama:

Conformity

- Missing fencing, wires hanging down - not connected.
- Structure too small for a slaughter house & would not have missing roofing.
- Track very few spikes, rail tops not shiny, no ballast.
- No cooling.

Construction

- Structures Excellent! Might have scored higher as individual structures.
- Track and ground surface could be improved.

Appearance

• Nice job -Watch color separation shine on sides of rails.

Scratch-Built

- Nice Diorama.
- Judges could use more information.
- Interior Detail would enhance your model.



Treasurer's Report Fiscal Year End; June 30, 2015 By Gerry Covino

hanks to our dedicated volunteers, our Division continues to provide quality programs supporting the Division's mission. We continue to maintain a solid financial position as seen in the statement presented here. We did this thanks to the time commitments of our volunteers, the exceptional success of our donations table at the NEMTE, and the many numerous small donations from friends of the HUB Division. The programs we offer continue to provide revenue that helps offset the costs associated with their success. The Module Group delivers enjoyment to many modelers, and our Railfun meetings continue to educate and entertain members.

Our major fundraising event, the "New England Model Train EXPO," was again financially successful even though we did not see an increase in paid admissions this past year. The event provides financial resources that fund a major portion of the Division's programs. Our show management continues to control costs to help raise the most revenue. The Division leadership is extremely grateful and thankful for the effort and support you provide with the many volunteer hours required to staff this two-day

event. The Division asks that you support both days of the show by volunteering a minimum of one hour each day. We thank you for your time by providing you admission to the show.

As mentioned above, the donations table provided the HUB with unexpected revenue this year. The Board is extremely appreciative of the work performed by Rudy Slovacek to promote, collect, value and oversee the sales of the many donations at the NEMTE.

Thanks to Manny Escobar, our past President, for his effort to raise funds for a new modular group trailer. Through that effort we received slightly more than 50% of the total required for the trailer. The HUB has procured a new 16-foot, all aluminum trailer, that members will see in service this fall. Manny's campaign was to raise 100% of the needed funds so that none of the HUB's reserves would be spent. For members who have not yet made a donation, please feel free to donate what you can. Please mark on the check restricted funds for new trailer.

As we begin our new fiscal year, the Board has approved a balanced budget. We encourage everyone to enjoy the upcoming season and to be an active participant in all the HUB's programs.

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. This means your contributions to the HUB, as with other non-profit organizations, can be tax deductible on your federal income tax return. You will find a form in this issue of the Headlight that you can use to make your contribution. Your financial support, as well as your volunteer support, will continue to ensure the ongoing success of the organization and the programs offered to you and to new members. Your ongoing generosity is greatly appreciated.

Have a great modeling year.

Account Balances Year-Ended June 30, 2014

Checkbook	\$	617.52
General Savings Account	2	2,635.69
Reserve-Life Savings Accounts	35	5,871.65
Program Checking Account		429.98
PayPal Account		894.33
USPS Permit Account		1.83
Total Funds Available	\$ 10	0,451.00
		,
Value of Club Car Inventory	2	2,040.20
Total Value of Cash and Assets	<u>\$ 42</u>	2,491.20



Debbie and Stan Ames (left) Gerald Abegg and Rick Murray (right) pose with George Sellios (center) during the June 20, 2015 Railfun - an open house at George's famous layout, The Franklin & South Manchester Railroad. Photo by Ray Barry

Railfun Events "On The Road"



It takes a lot of folks to run the Ames' massive garden railroad. The HUB operating session at Stan and Debbie's SJR&P Railroad on May 2nd was one a follow-up to the March 20th Railfun Photo by Peter Higgins



Seacoast Division Activities

Model Railroading Night

- September 11th
- October 9th

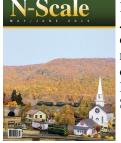
Meetings are Friday night at 7 PM in the Marion Gerrish Community Center, 39 West Broadway, Derry, NH.

Fall Event

Saturday, October 17th, 10 AM to 2 PM at the Stratham Firehouse, Stratham, NH

See http://www.seacoastnmra.org for info.

Cover Worthy



HUB Member Ernie Johansen's layout of the Rutland Railroad was featured on the cover of the May-June 2015 N-Scale Magazine.

RAILFUN TIMETABLE

(Continued from Page 1)

Presentation: Achievement Program Night By Gerald Abegg, MMR

8 PM Friday, November 20, 2015, Cambridge School of Weston

The November Railfun will feature the AP program with three special events:

The first event will be the judging of cars and structures presented by members who wish to have them judged for Merit Awards. This session, which will be done in a separate room, will engage four qualified judges using the standard AP evaluation procedures.

Simultaneous with this judging, Gerald Abegg will give a presentation on how to do the AP application process. He will explain which certificates do not require judging and how to complete the necessary documentation for those certificates. He will also explain the process for submitting materials that require Merit Awards and the best strategies for gaining maximum points.

After the break, the judged models will be presented and the judging will be discussed. Everyone will have a chance to examine the models and receive comments from the judges.

The goal of the evening is to give everyone an opportunity to really understand the Achievement Program and see how it can help each of us become a better modeler. It will also provide an opportunity for some of our modelers to earn Merit Awards without having to enter them in an NMRA model contest.

Order Form - HUB Division Apparel

Short Sleeve Shirt and Sweatshirt Available Sizes S M L XL 2XL 3XL

Short Sleeve Shirts - Ash color Shirt with HUB Division Size: Quantity: Amoun	•
Circle ONE With Pocket Without Pocket Name on Shirt	Т Р.
Sweatshirt - Ash color with HUB Division Logo - Sizes a 8.002 Weight \$25.00 each Size: Quantity: 9.502 Weight \$30.00 each Size: Quantity: Quantity: Name on Shirt	_ Amount \$
T-Shirts - Ash color Shirt with HUB Division Logo - \$18 Size: Quantity: Amoun Circle ONE With Pocket Without Pocket	.00 each qu
Long Sleeve Shirt - Heather color Shirt with HUB Division Small to XL \$30.00 each Size: Quantity: 2XL to 5XL \$35.00 each Size: Quantity: Name on Shirt — (If you wish to have it mailed to you add \$5.95) —	Amount \$ re Amount \$ yo
Total Check (Payable to The HUB Division, Inc.)	Amount \$ ca
Your name: Phone or email:	Ti in

Mail to: Gerald Covino, Treasurer The HUB Division, Inc. P.O. Box 672 Hollis, NH 03049-0672

Orders must be received by Oct. 1, Jan. 1 or Apr. 1. You will be contacted if there are any questions with your order and you will be notified when your order arrives. People may pick up their orders at RAILFUN meetings or shows to avoid the additional mailing costs. If you request mailing, please provide your mailing address.

To purchase using your credit card, email your order to Treasurer@hubdiv.org and an invoice will be sent to you.

Volume 32, Number 1 September - October, 2015

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Headlight Printers

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Directions to Railfun Meetings

Railfun is usually held at the Cambridge School of Weston (CSW) in Classroom G6 on the second floor of the George Cohan Building. The school is located at 45 Georgian Road, Weston, MA 02493.

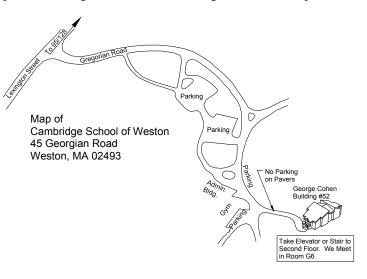
From Route 128 / Interstate 95:

From the North, take Exit 27B towards Winter Street.

From the South, take Exit 27A-B for Third Avenue toward Totten Pond Road/Waltham. Take Exit 27B towards "Winter Street" Bear right onto Wyman Street and continue to the traffic light. Take a right onto Winter Street at the light.

Continue on Winter Street to the second traffic light. Turn left on West Street, which becomes Lexington Street as you cross the Weston town line. At the crest of a small hill is Georgian Road and the CSW school sign; turn left on Georgian Road into the CSW campus.

Follow Georgian Road. There is a parking lot on your right, or you can park along the left side of the road and down the hill by the gymnasium. Please do not park on the stone pavers leading to the Cohen Building. See detail map below.



RAILFUN Weather / School Closure Note:

If the school is closed, we will NOT have Railfun that evening. School closings are broadcast over the radio at WRKO 680AM and WBZ 1030AM, and on TV Channels 4, 5 and 7. The Cambridge School of Weston recording is at 781-642-8600. Check the radio or TV stations early on the morning of Railfun! You can also check www.hubdiv.org and we plan to post notices on Facebook and Twitter.

JOHN DOE MODULE GROUP	Badge and first line o Each additional line is lines on your name ta	NAME TAGS With magnetic holders Badge and first line of printing is \$11.30, plus \$3.00 S&H. Each additional line is another \$2.00. You may have up to three lines on your name tag.				
First Line	vision, Inc. Send completed nc. STREET	ine)\$16.30 (2 lines)\$18.30 (3 lines)				
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The Hub Division, Inc. P.O. Box 672 Hollis, NH 03049-0672 It Takes All of Us Working Together! () \$25.00 () \$50.00 () \$100.00 () Other \$ YES, I am happy to support The HUB Division, Inc. to foster railroading through displays, modeling and educational opportunities to						

Also, the *Headlight* is always accepting photos and articles relating to model and prototype railroading. Articles about model building or home layouts would be appreciated.

Please email editor@hubdiv.org.

to future issues.

NAME			
ADDRESS			
CITY	STATE	ZIP	
To make a donation using your cre		<u> </u>	div.org.
Please make your check payable to) "The HUB D	ivision, Inc."	
Send your payment to the address	above.		

members and the public at large. I show support with the enclosed gift.

HUB Module Kits Available

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 roadbed and the 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.