

HUB Headlight

HUB Division Inc., Northeastern Region, National Model Railroad Association - www.hubdiv.org

Volume 40, Number 2, November - December, 2023

RAILFUN TIMETABLE

Build a Low-Cost Static Grass Applicator

By Manny Escobar and other HUB members

12 PM TO 2 PM Saturday, November 11, 2023

Chelmsford Public Library, 25 Boston Road, Chelmsford, MA

Interested in building your own static grass applicator? Well, you're in luck. In this clinic you will learn how to convert an inexpensive electronic fly swatter into a device to apply static grass. Reservations will be required (limited to 24) to make sure we have enough supplies. We will be looking for a donation of \$5.00 towards the supplies. Make reservation via email to president@hubdiv.org, prior to Wednesday, November 8, 2023.

Before the clinic gets started, Bruce Robinson will do a short presentation about the recent NER Cannonball Express convention that was held in Long Island in early October.

After the meeting, you can head over to nearby Tewksbury for a tour of Rand Hoven's large double-deck N-scale layout.

The Albany & Susquehanna RR

Rand Hoven's A&S RR is an N-scale railroad depicting rolling stock and operations of the Delaware and Hudson RR in upstate New York during the 1970s through the 1990s. The railroad is double-deck without a helix. The grade between the two decks is double-tracked and represents three major grades on the main line; Belden Hill, Richmondville Hill and Mt. Ararat. Using the grade multiple times the railroad has 14 scale miles of main line track.



(Continued on Page 9)

Getting Started in 3D Printing

By Dave Insley

10 AM Saturday, January 20, 2024

Chelmsford Public Library, 25 Boston Road, Chelmsford, MA

Come and explore the world of 3D Printing. We will look at the various printers on the market today, discuss how they work and the steps you need to take to get started with these wonderful tools. We will discuss the various materials that can be used for printing and the considerations you will need to make to get a quality print. If you have never used a 3D Printer before then this might be a perfect opportunity to get the information you need to get over the hurdle of starting out. If you have already been using a 3D Printer, then bring along some of your prints and be ready to share how you were able to get your prints to the next level. If time permits, we will explore some of the available 3D modeling software to make your own designs.



The 2023 National Narrow Gauge Convention in Denver

By Russ Norris, MMR

Some 1200 narrow gauge enthusiasts assembled in Denver from August 30 to September 2 for the 43rd National Narrow Gauge Convention. This year's convention was one of the largest in recent memory, with 80 vendors and 60 clinics, not to mention 44 home layouts and museums open to convention goers. The convention followed the format of previous events, with clinics and vendors open mornings and evenings, leaving the afternoons free to visit area model railroads and other attractions.

I arrived a day early, rented a car and drove into the mountains to visit with a friend from Minnesota who has a cabin on the South Platte River. The road between the cabin and the river was originally the main line of the Denver, South Park and Pacific Railroad. Just a stone's throw from the cabin stands a log depot, which once served the narrow gauge DSP&P.

(Continued on Page 4)

Also Inside This Issue

Page 2.....The President's Car,
RAILFUN 2023: A new program

Page 3.....Shanty Talk

Page 7.....HUB Holiday Party
NEMTE
Back to the Museum

Page 8.....Erich's Electronics Notebook

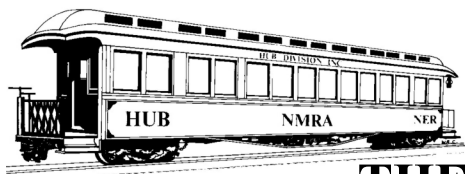
Page 10...Cannonball Express contest results

Page 11...HUB Leadership

From the Module Superintendent

Page 12...Calendar of Events

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



THE PRESIDENT'S CAR

By Manny Escobar

As I write this installment of President's Car, there is a chill in the air. Brings back memories of when I joined the organization in the spring of 2005. I was so excited to help out, volunteer and learn all the new aspects of the hobby with new friends on that coming Fall season. Today I am still learning and meeting new friends, and enjoying the particulars of the hobby; DCC, sound decoders, track gauge, how to weather rolling stock, locomotive, scenery and so on... With that said, next month is slated to be "Model Railroad Month" by the National Model Railroad Association. So, promote the hobby with your friends, family and colleagues. Bring a model train to work, bring them to our modular display showings, or RAILFUN. Promote the hobby!!!

RAILFUN 2023 a new program

By Bruce Robinson

Saturday, September 23, marked the start of the new RAILFUN program. With declining attendance since the beginning of the Covid issue and a lot of discussion at the HUB BoD, attention to what to do turned to revamping the HUB's premiere member activity. The result of these discussions came out in an outstanding new venue at the Chelmsford Public Library. The library is easily accessed from route 495 with plenty of parking and has a very supportive staff that had the screen and overhead projector up and running for us. The screen dropped down from the ceiling and I thought I was at the local drive-in movie!

President Manny Escobar welcomed everyone to the new program at the 10 AM start time and we were off and running. Peter Watson had a few announcements and introduced the first clinic presentation.

This past September, RAILFUN was held Saturday at Chelmsford's Public Library followed by a trip to Stan and Debbie's layout [Editor: see Bruce Robinson's article starting on this page]. The October RAILFUN was held online via ZOOM. The November session we will be back to Saturday at Chelmsford's Public Library (November 11 12 PM to 2 PM). As the year progresses, the division will refine or enhance the RAILFUN program. We will be sending out email notifications for the future programs and locations.

We need your help to rekindle our Division, so please volunteer to be a department coordinator or volunteer to assist the department heads. We need our members to step-up and help make the organization function and to grow this fantastic model railroad hobby.

Upcoming events include our "New England Model Train Expo" December 2 and 3; Our Holiday Party December 16, and our Christmas display at the Museum of Science, Boston /Cambridge from Mid-November to Mid-January. Please volunteer for these events or tell your friends to come. It's a great way to promote the hobby to others, plus is the holidays !!!

I had the honor of doing a PowerPoint presentation describing the mountain of overly complicated paperwork (do you really believe me?) used on the Valley Junction's operating sessions (if you can read and tell colors you're in!).

Peter Watson did the second clinic with a hands-on demonstration on how to build sub-roadbed using the spline method. This system yields beautiful curves with easy transitions, so check this system out.

At noon the activity shifted to Deb and Stan Ames' home on the other side of



The author giving his presentation.

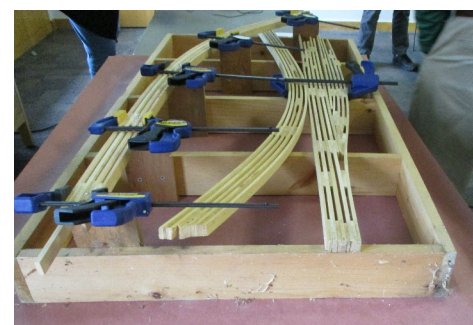
Please check out our event calendar in this issue and on the website for other important dates and events.

One last item that I want to mention. The HUB Division in past years has been blessed by members that gratefully help out sharing their facilities to store items and host hands-on workshop functions. Unfortunately, we are losing access to one of these facilities. It is time to determine if we can rent, lease or buy our own space. If you know of a space or property that could accommodate us, please contact one of our Board Members or myself (president@hubdiv.org) with any lead you might encounter or hear about.

Thank you for everything you do for the HUB Division and the organization.

Please stay safe and healthy during the Holiday Season.

"Keep 'Em Rolling"



The demonstration spline roadbed on the left, clamped while the glue dries. The sections to the right were examples Peter had made up ahead of time.

town. With everyone gathered around Deb's kitchen the boxes of pizza were attacked, devoured and enjoyed. Then it was instruction time and assignments to the various trains to be run through the rock-studded piney woods of the Ames' back yard. With Fn3 Colorado themed narrow gauge trains winding their way over almost 5,000 feet of track, each operator had to pay attention to the dispatcher's instructions to successfully complete their runs. The light rain that was part of the afternoon just heightened the feeling of "real world railroading". (Hiding out in the shed with the dispatcher kept me out of the weather!)

(Continued on Page 10)



Shanty Talk:

By Rudy Slovacsek

Fun Facts Part II

Today I'd like to continue my Fun Facts Column of May-June 2023 before I forget the topic. Speaking of prototypical conditions, locomotives have "Tractive Effort" ratings which are used to indicate what a locomotive can safely pull. For my modular layout I use the value of five cars per locomotive axle. Thus a 20-car train can be moved about on my level trackwork by a single RS unit though the 22" radius causes some friction. Similarly, a six-axle locomotive can handle 30-cars and so on. As I go above these haulage specifications, I can often observe wheel slippage, especially with a heavily weighted or loaded train. Thus, I have a working formula to calculate the tonnage all my locomotives will handle.

Since my railroad is based on the D&H, which for a time had over 100 ALCO diesels in the form of S-2s, S-4s RS-2s and RS-3s leading into the 1960s, I set the actual reported Tractive Effort of 52,500 lbs. equal to the observed maximum loading of about 20 cars or five cars per axle for an RS-3 (see for example table I). This loading can then be normalized by the actual TE for any given locomotive type for this time period. For example, a six axle SD-40 having a TE of 82,100 would be able to pull $(82,100 / 52,500) \times 20$ or about 31 cars. Thus, my formula is $(TE / 52500) \times 20 = \text{locomotive loading in number of cars}$.

CONDENSED GUIDELINES FOR MAXIMUM RATINGS OF LOCOMOTIVES				
DIESEL	MODEL	TE lbs	AXLES	Car Loading Frt. or Pas.
EMD	E-7	18,400	6	7P
EMD	E-8	23,500	6	9P
ALCO	S-2	29,000	4	11
EMD	NW2	31,000	4	12
ALCO	PA	33,000	6	13P
ALCO	S4	34,000	4	13
ALCO	RS-1	34,000	4	13
EMD	F-7, GP-7	40,000	4	15
ALCO	FA-1 RS2	48,000	4	18
ALCO	RS-3	52,500	4	20*
ALCO	RS-11	53,000	4	20
ALCO	RS-36	53,000	4	20
ALCO	C420/424	53,000	4	20
GE	U-25	53,000	4	20
GE	U-28,30	55,000	4	21
ALCO	C430	55,000	4	21
GE	U30C,33C	92,500	6	35
EMD	GP-35	51,700	4	20
EMD	GP-40	51,250	6	20
EMD	SD-40	82,100	6	31

* TE/52500 x 20 = loading

Early passenger locomotives in which the center axle, of a six-axle truck, was unpowered had a lower rating due to the tractive effort being lower. They were built for speed. It is interesting to note the Great Northern (GN) resorted to geared-up F or freight units instead of the popular E units most railroads used to pull their passenger trains. The reason was the need for more tractive effort to address the mountainous grades.

Likewise, the lower tractive effort of the switchers also limited their pulling power for at least long runs, though they could handle short bursts of power without traction motor burn-out. Thus, it made sense then, that the D&H quickly got rid of their S-2s and S-4s in favor of the RS

units for local switching duties as well as mainline service.

Now back to the model work as promised in last month's column. My kit-bash of the D&H Diffco car is coming along slowly but you can see in Fig 1 the removal of the hinges in the middle of the car and small struts have been inserted in the slots carved as in Fig 2. When the weather stops raining, perhaps I can put a coat of primer on, followed by a coat of the D&H blue. Until then I'll just have to be content with my NYC caboose project (a Funaro and Camerlengo kit) and catching up on my model railroad reading. Sorry to cut this column short but it's due to the editor and I want to catch Doug Scott's presentation online for RAILFUN this month.



The Diffco dump car stripped down



The Diffco dump car with struts installed

The 2023 Narrow Gauge Convention

(Continued from Page 1)



Log cabin formerly a station for the Denver, South Park & Pacific Railroad.

The cabin was rustic, but had a well-stocked bar. We spent the evening talking about the history of the place until finally turning in. The sound of the river crashing over the rocks and the light of a full moon were the perfect ending to my first day.

The next morning, after a leisurely walk along the South Platte, I drove back to Denver and registered at the convention center. That evening I made a quick tour of the vendor room, then wandered over to the contest room. Models and photos were available for viewing throughout the convention. Attendees each received a ballot to vote for their favorite entries, with winners to be announced at the closing event Saturday night.



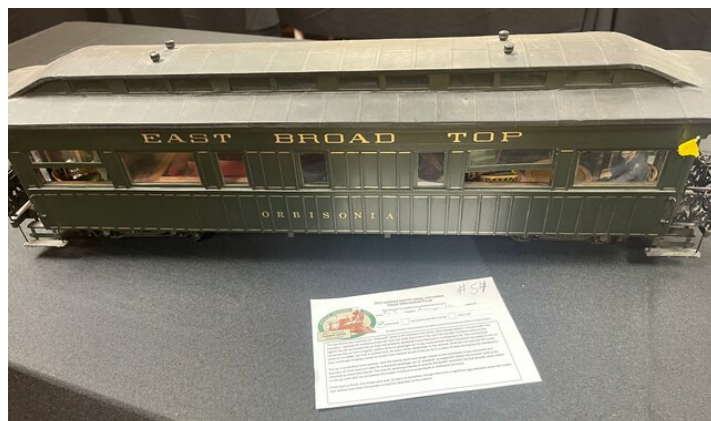
Operating model of a machine shop with lights and overhead belt and pulley power.

The quality of the contest entries was stunning. Among the most impressive structures was a beautiful HO scale model of a machine shop with lights and working overhead belts and pulleys. There was also an HO-scale working model of the Durango coaling tower featured a working lift for the coal.

Right:
Operating model of the Durango coaling tower.



As you might expect, most of the models and photos were of Colorado narrow gauge prototypes, but there were a few Eastern narrow gauge entries. The winner in the passenger car division was an O-scale replica of the East Broad Top's business car, number 20, the Orbisonia.



O-scale model of the East Broad Top's business car, the "Orbisonia". The model won first place in the passenger car division.

On Thursday, I drove up I-70 into the mountains to visit the Georgetown Loop Railroad. The Loop is steeped in the history of Colorado. By 1879, the silver boom had created a race between Colorado's competing railroad systems. One of the proposed routes, relying on the Union Pacific owned Colorado Central, would extend west from Georgetown, cross Loveland Pass, and turn south to the silver mines at Leadville. However, a competing route, using DSP&P track, crossed the Continental Divide first, leaving the Georgetown route unfinished. The line never did reach the Divide, but it did beget the construction of the Georgetown Loop. The Loop consists of a number of hairpin curves – along with a spectacular, high spindly bridge – built to raise the track 638 feet in less than two-miles. Today the loop carries tourists over a short run from Georgetown to Silver Plume and back. I did manage to get my photo taken with the high bridge in the background.



Author in Georgetown with the Devil's Gate High Bridge in the background.

After a great lunch in Georgetown, I drove back down I-70 to Idaho Springs, former home of well-known author and model railroader Harry Brunk. Long-time readers of the Narrow Gauge

(Continued on Page 5)

The 2023 Narrow Gauge Convention

(Continued from Page 4)

and Shortline Gazette will know of Harry. He wrote a column from 1980 to 2010 describing his HO_{n3} Union Central & Northern Clear Creek Division. Harry's layout depicted the Colorado & Southern's 3-foot-gauge Clear Creek line. It once ran from Denver through Golden, up Clear Creek Canyon, through Forks Creek, spinnin a branch off to Black Hawk and Central City. It then went through the famous Argo Tunnel, past Idaho Springs and Georgetown, over and up and around the famous Georgetown Loop and into Silver Plume and even a bit beyond. Harry passed away recently, but his layout has been preserved at the Cheyenne Depot Museum.

While in Idaho Springs, I did visit a large and incredibly detailed model railroad built by Mike Horner. The layout, which occupied the entire second floor of a large garage, took over 30 years to build. In talking with one of the operating crew, I learned that the railroad had not operated in over a year. Mike's focus is on building, not operating. But with the help of some local model railroaders, they had managed to get the whole thing up and running in time for the convention. Truly an amazing layout!



Part of the HO-scale operating layout built by Mike Horner of Idaho Springs.

Friday, I joined several friends for a trip to the Colorado Railroad Museum in Golden, about 30 minutes from the hotel. The museum has a large collection of historic and modern locomotives and rolling stock. We arrived just in time for a ride behind RGS ten-wheeler #20. The Rio Grande Southern bought the locomotive from the Florence & Cripple Creek in 1889, using it to pull trains west from Alamosa to Durango. A fan favorite, #20 was often requested to haul special charter trains. Legendary railroad photographers Lucius Beebe and Charles Clegg chartered two private cars in the 1930's that carried them over the famed "Narrow Gauge Circle" behind RGS #20. The locomotive has been carefully restored by museum staff.

In honor of the National Convention, the museum fired up a second locomotive just for the day. K-37 #491 was originally built as a standard gauge engine, but the D&RGW rebuilt it to



Rio Grande Southern ten-wheeler #20 at the Colorado Railroad Museum.

operate on narrow gauge tracks in the last days of steam railroading. When we arrived at the museum, the K-37 was steaming up next to the roundhouse. With my convention badge, I was free to wander almost anywhere, so I strolled over to take some pictures of #491. The hostler invited me into the cab, where he was feeding coal into the firebox. It was in the 90's in Golden that day, but the weather felt cool compared to the temperature in the cab.



Backhead and firebox of K-37 #491 at the Colorado Railroad Museum.

In the afternoon, museum staff pulled #20 and replaced it with the K-37. What a thrill when that huge locomotive came chuffing up to the station, slowed to a halt, and with a shout of warning from the engineer, performed a blow down for the crowd.



K-37 number 491 preparing for a blowdown.

One of the delightful surprises at the museum was the discovery of a large model railroad in the basement of the station, owned and operated by the Denver HO Model Railroad Club.

(Continued on Page 6)

The 2023 Narrow Gauge Convention

(Continued from Page 5)



Denver Model Railroad Club layout at the Colorado Railroad Museum.

Space does not permit a review of all the historic rolling stock at the museum, but I can't finish without mentioning the famous "galloping geese" on display – another tip of the hat to the stubborn little RGS, which found ways to keep operating right through the depression. If you are ever in Denver, the Colorado Railroad Museum is worth a visit!



A pair of Galloping Geese at the Colorado Railroad Museum engine facility.

Saturday morning, several friends and I drove up to the Continental Divide for a visit to the famous Como Roundhouse. The route follows the DSP&P railroad to the top of the world. After climbing steeply for miles, we passed the Divide and entered a wide flat valley dotted with cattle and horses... and the occasional moose!

Como is a small village, but it played an outsized role in Colorado railroading. The route that succeeded in reaching the silver lode at Leadville (and ended the dreams of Georgetown) ran through Como, which had an engine service facility at the top of the world. A small group of dedicated local citizens is working to restore the roundhouse.

The roundhouse has been largely renovated and the turntable is operational. It is an "Armstrong" table, but the bridge is so well balanced on its bearing that I was able to push it myself with very little effort.



Track crew at work at the Como Roundhouse.



The Como Roundhouse with the Armstrong turntable in the foreground.

After visiting the roundhouse and taking speeder rides on a half-mile stretch of restored track, we drove back down I-70, ending the day at a nifty little bar and restaurant not far from the cabin where I spent my first night. What a great way to wind up a fabulous adventure!

The 43rd National Narrow Gauge Convention came to an end Saturday night. Contest award winners were announced and a vote was taken on where the next annual conventions will be held. Next year's event will be in Pittsburgh, and will feature a bus trip to visit the East Broad Top Railroad. Future conventions will be in St. Louis, Minneapolis and Nashville.



Left to right: John Niemeyer and friend, Todd Leftwich, and the author enjoying a cold beer and burger.

HUB Holiday Party

Saturday, December 16, 2023
12 PM to 4 PM

Reception from 12 PM to 1 PM
with hors d'oeuvres and waitress
service cash bar

Buffet Lunch starts at 1:00 PM

Yankee Swap at 2:30 PM
(or shortly thereafter)

The Common Market Restaurants
97 Willard Street
Quincy, MA 02169
(617) 773-9532
www.commonmarketrestaurants.com

Price: \$50 per person.

Reservations only, no walk-ins.
No reservations after December 13.
Questions: contact Gerry Covino
Treasurer@hubdiv.org

Bring a gift worth at least \$15 - \$20
to participate in the Yankee Swap.

Appetizers:

Scallops and bacon
Spring rolls
Coconut chicken
Shrimp cocktail
Cheese and crackers

Entrees:

Roast Sirloin with horseradish sauce
Roast Turkey with cranberry relish
Shrimp Scampi

Included:

Tossed Salad
Seasonal Vegetables
Rice of the Day
Dinner Rolls
Coffee and Tea station

Dessert:

Cookie and Brownie Tray
Assorted French Pastries
Coffee and Tea Station

Please let us know if you have any
allergies or dietary restrictions.

HUB Holiday Party Registration Form

Name: _____

Food allergies: _____

In case of inclement weather, please provide your email and/or phone
number where we will be best able to reach you.

Email: _____

Phone: _____

Number Attending: _____ x \$50.00 = _____

Please make check payable to: The HUB Division, Inc.

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

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

New England Model Train Expo, December 2nd and 3rd

By John Russo

The Division needs your help to make the
2023 NEMTE show a success. Please
volunteer and sign up for one of the open
assignments preferably on both Saturday
and Sunday. We are using SignUpGenius
to track the work schedule. I have sent out
an email with the link and instruction for

accessing SignUpGenius. Volunteers are
allowed free show access. The HUB
website has a link under "Our Shows" tab
with the dates, time and location. If you
need help with SignUpGenius please
email me at nemte.director@hubdiv.org.
Looking forward to seeing you at the show.

Back to the Museum

By Boris Maznek

For the sixth consecutive year, the HUB
Division will be at the Boston Museum of
Science running our winter themed exhibit.

Over the past five years the exhibit has
been a tremendous success drawing over
100,000 visitors a year. It's given the
hobby and the HUB Division a lot of great
exposure.

Our exhibit this year will again consist of
four separate layouts: a G-Scale trolley;
HO-Scale trolley; a Boston themed HO-
Scale; and, a two-level O-Scale layout.

As always, we need volunteers to set up
the exhibit and keep the trains running. If
you have never volunteered for this event
before, it's a great experience. You get to
meet people from countries around the
world. You get to see hundreds of kids'
(and their parents') faces light up like the
proverbial Christmas tree when they walk
into the exhibit area. It's unlike anything
else the Division participates in.



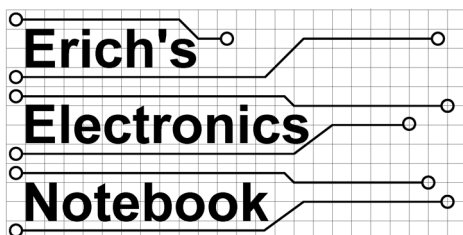
To help ease the pain of driving into
Boston, all HUB volunteers get free
admission to the museum and all the
shows anytime throughout the period the
exhibit is open. Also, along with free
parking, there is a 35 percent discount in
the museum cafeteria.

So, if you want to try something com-
pletely different, please take a look at the
schedule in SignUpGenius and sign up for
a shift.

This year's dates are:

Exhibit Set Up	Nov 8th – Nov 15th
Exhibit Open	Nov 18th – Jan 15th

Help support the Division and have some
fun doing it.



By Erich Whitney

FRS Radio Gaming Headset Adapter

In this issue we're going to take a little trip on an adventure into the world of radio headsets. These are the FRS radios that we commonly use during operating sessions to communicate with the dispatcher and train crews because they are relatively inexpensive, easy to use and seem to work well from layout to layout. By now, if you've been following this column, you've probably figured out that I can't leave well enough alone. Headsets and earpieces for FRS radios recently became the target of my next technological attack. Over the course of at least a decade, I have gone through a handful of over-the-ear and in-ear headsets and earpieces with various boom mics, inline mics, lavalier mics, you name it. Every time I have become frustrated with the lack of performance and incredible discomfort these products consistently deliver. Meanwhile, kids these days have no end of options for their gaming systems at any price point, performance, and comfort level imaginable. Ah, but wait. Go ahead and try to plug one of those new-fangled gadgets into your spiffy new Motorola FRS radio and see where that gets you... I naively Googled my way around looking for what must surely be an inexpensive obvious solution online by some clever sod that's already solved this problem. Alas, if they exist, they haven't bothered to show up in Google searches yet. What's the problem? I thought you'd never ask.

To put it simply, I don't hear as well as I used to, and this is a real and present danger to my hobby! I love to operate on model railroads but using these handheld radios with the standard earpiece or headset has become a real problem, especially when all my fellow operators are chatting all around me. After my last operating session, I decided to tackle this problem head-on and find a solution. This column talks about how I adapted a PC gaming headset to a common Motorola FRS radio. This solution provides a very comfortable over-the-ear headset that attenuates room noise very well and it has a boom mic that makes communication with the dispatcher very clear. Because this adapter uses the standard jack, any compatible headset can be used, including noise-canceling headsets.

To start, I'm only going to talk about the Motorola Talkabout FRS radio because it's the one I have. I didn't go off and try to do a market survey to find a generic solution to this problem. However, I believe that my general approach is sound and should work for other radios but may require other modifications.

There are two obvious differences between the headsets for FRS radios and headsets for gaming systems. First is the fact that FRS radios use 2.5mm plugs and gaming systems use 3.5mm plugs. Second is that FRS radios use mono audio while gaming

systems use stereo audio. There are other mono headset devices that use a 2.5mm plug that look very similar to the 2.5mm FRS radio plug and both plugs carry the same signals. However, it turns out that even though both plugs are 2.5mm in diameter, they are different lengths!

If you are getting the impression that someone just doesn't want the FRS radio world and the gaming headset world to collide, you might have taken the hint and walked away. If I were to exercise my professional muscle on this task, I would research all the relevant standards that applied to headsets and earpieces and come up with a set of requirements that would need to be met to accomplish the task. However, this is my hobby, so I took out my wire cutters and got to work building an experiment. The 2.5mm FRS plug has 3 rings on it and I hypothesized that its connections must be: speaker, microphone, and common ground. The 3.5mm gaming headset plug has 4 rings on it, and I hypothesized that its connections must be: left speaker, right speaker, microphone, and common ground. A quick Google search confirmed my hypothesis on both counts.

Figure 1 shows the Motorola FRS radios and Figure 2 shows the earpiece that I started with for this experiment. Note the earpiece wire has the PTT (Push-To-Talk) button it, which is very convenient during an operating session since you don't want to accidentally keep the microphone on after you're done talking. The blob that has the PTT button also has the microphone, but we won't be needing that in the end since the headset we'll be using has a nice boom microphone, as you will see.



Figure 1: Motorola Talkabout T503 FRS Radios

Figure 3 shows the gaming headset I used for this experiment. I chose this one because I have a USB version that I like and this one is very inexpensive (~\$30), has a detachable boom microphone, and the 3.5mm plug. I figured if I could get this to work, then a more expensive headset that uses the same plug would also work.



Figure 2: Motorola Surveillance Earpiece with PTT

(Continued on Page 9)

Erich's Electronic Notebook

(Continued from Page 8)



Figure 3: EKSA Gaming Headset

Now for the final challenge, how to connect the new headset to the radio. Figure 4 shows a 3.5mm to 2.5mm cordless phone headset adapter and even though this looks like it has all the correct connections, the 2.5mm plug is not long enough to work in the Motorola radio. So, I decided that since I don't like the Motorola earpiece and this adapter was cheap (~\$9), I would sacrifice those two parts so that I could make a cable that would allow me to just plug in the new headset.



Figure 4: 3.5mm to 2.5mm Cordless Phone Headset Adapter

It was at this point that the wire cutters and the Fluke Digital Multimeter were summoned, the soldering iron was energized, and construction commenced.

For this first prototype, I cut off the 2.5mm plug from the cordless phone headset adapter (Figure 4) and I disassembled the PTT/microphone pod on the Motorola surveillance earpiece (Figure 2), cutting off the entire cable that goes to the earpiece, cut out the microphone, then soldered in the wires from the 3.5mm socket so I could plug in the new headset. I kept the PTT switch in the circuit so that the new headset's microphone connection had to go through that switch. I also wired the left and right speaker connections together because the FRS radios are mono, and you really want the sound to come out in both ears. When I was done soldering, I reassembled the PTT pod and glued it back together with some styrene glue. I didn't take pictures of the guts of the pod because it's very difficult to make sense of the connections and I think if you're going to try and replicate this project for yourself, you are much better off retracing my steps and verifying the connections with an ohmmeter for yourself rather than trying to use my photos and hope you guessed correctly. The connections aren't particularly difficult; however, the wire gauge is small and if you don't have a small soldering iron, you will make a real mess of the parts. Figure 5 shows the completed adapter experiment.

I finished this project just in time for the Cannonball NER Convention on Long Island, October 5th-8th. On Saturday, October 7th, I found myself in the middle of an incredibly large club layout (Allegheny & Western) along with my daughter, Brenna, and we put the new headset to work. Brenna was our



Figure 5: Completed Adapter

engineer, and I was the conductor. We ran trains for the entire session and the headset was fantastic. Whenever I had to work the radio, I pulled both earpieces over my ears and I could hear everything incredibly clearly. The dispatcher had no trouble hearing me either. I can't say the same thing for the other crews with their radios. Whenever we were working in dark territory, I could slip one of the earpieces off and I could hear everything I needed to without any issues. The gaming headset is bulkier and I'm sure on a warm day it will likely be a lot sweatier, but I think it's worth it.

I hope you found this information useful. My plan for the next issue is to start documenting the process we have gone through redesigning the Hoosac and Upton Module Yard control panels. This project converts these yards to NMRA standard LCC control and will include examples of how to configure LCC nodes for turnout control, using Berrett Hill Touch Triggers, and there will even be 3D printed parts. Stay tuned!

The Albany & Susquehanna RR

(Continued from Page 1)

The railroad is set up for operations and dispatched using CTC. Track-side speed signaling is used to control movement of trains. An operating session can include up to 22 mainline trains and three local trains. Most trains interchange freight cars in either Oneonta or Binghamton yards. Car forwarding is done at the yards by drawing cards from a deck and forwarding cars by type as instructed. This means there is no need to read the reporting marks on the cars. It also means that cars are never in the wrong place and trains are reasonably well blocked.

Layout at a Glance:

- Scale: N
- Size: 15 ft x 30 ft double deck
- Prototype: Delaware & Hudson RR
- Locale: Upstate NY
- Era: 1970-1990
- Minimum Radius: 18"
- Maximum Grade: 2%
- Scenery: 50%



NER Convention, Uniondale, NY

By Bill Barry

The NER convention was held on Long Island, NY, for the first time in many years. The Sunrise Trail Division put together an extensive convention program with a long list of clinicians, layout tours and operating sessions.

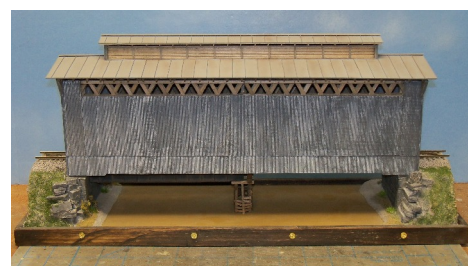
Though I didn't go myself, folks that went on the prototype outing to Grand Central Terminal had a good time. Attendees got to check out the the new Grand Central Madison station built roughly 100-feet below the existing tracks.



Malcolm Houck's NYO&W Class S 2-8-0 Double Cab No. 177 won First Place in the Scratch-Built Steam category. It earned the most points in the contest, making it Mal's third Baldwin Trophy win!
Photo by Mal Houck



Andy Reynolds' Clont's Automotive Service won Second Place in the Kit-Built Structures category.
Photo by Andy Reynolds



Bruce Robinson's Fisher Covered Bridge won Second Place in the Scratch-Built Structures category. Photo by Bruce Robinson



Jerry McDonald's RC&N Icing Dock won First Place in the Kit-Built Structures category. Photo by Jerry McDonald

I had a good time at two operating sessions. The clinics were enjoyable and very informative. The contest room was full of entries and a number of HUB members did well. The Thursday reception, Saturday banquet and Sunday morning awards breakfast were all nice and it was great to catch up with my friends from throughout the region.

HUB Division members did well in both the Model and Photo Contests at the convention. Photos of the entries are included here.



Malcolm Houck won Best in Show in the Photo Contest with "No. 407 at the Wisner Ave. Coal Tower."



Malcolm Houck won Second Place Model Color Print with "No. 157 at Kingston yards."



Malcolm Houck won Third Place Model Color Print with "No. 305 On the Pick-up at Hawk Mt. North Portal."



Malcolm Houck won First Place Model Color Print with "Early Spring, No. 325 with pilot plow - Winter dies hard in the Mountains."

RAILFUN 2023

(Continued from Page 2)

A great venue, two awesome clinics (you should have heard all the clapping!) and two great hosts that offered up some awesome social time and train running made for a really great first time for a new program. Stay tuned. More to come.



Dana Andrus dispatches the SJR&P Railway from "the shed" during the operating session
Photo by Bruce Robinson

HUB Headlight

Volume 40, Number 2, November - December, 2023

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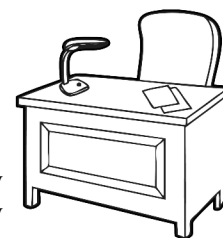
Membership: National Model Railroad Association members residing within the boundaries of The HUB Division: zip codes 01400 through 02699. (Barnstable, Dukes, Essex, Franklin, Middlesex, Nantucket, Norfolk, Plymouth, Suffolk, and Worcester counties of Massachusetts.)

Headlight Printers

Versatile Printing Services, LLC, Burlington, MA

From the Modular Superintendent's Desk

By Bob Collins



The annual calendar can be very comforting. Each year, the holiday season can be a window to the past.

For many of us, the regularity of the train show season can have the same effect. We are such creatures of habit that I can usually guess correctly which members are coming to which shows.

The show at Hopedale in September was new. One of the nicest parts of that show, however, was bringing back to life some modules that had been in storage for years. Many of those modules were donated to the group by members who have passed on. I believe it is important for us to not only be looking towards the future in terms of growing the hobby, but also be looking towards the past in remembering those who contributed so much to ensure the HUB Division was alive and well in 2023.

If you are a member and have not yet put your mark on the module group, there is always time to do so. Reach out if you have any questions and if I can't answer them I can find someone who can. That is the amazing part about the HUB Division. We have so many members, skilled in so many aspects of the hobby that we can always help each other learn and grow.

The next stops are Wilmington and Marlborough, and I hope to see you there!

That's all for now HUB Division, okay to go!



The HUB Modules are busy at the Boxboro show.
Photo by Bruce Robinson

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

Please see the [September-October 2023 Headlight](#) for all order forms and module kit information along with information about the online HUB Branded Merchandise store.

RAILFUN Updates or Cancellations

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

Submissions Requested

The *Headlight* is always accepting photos and articles relating to model and prototype railroading. Articles about model building or home layouts would be much appreciated. Earn credit towards your Author AP certificate. Please email editor@hubdiv.org.

HUB Division Calendar of Events

(Subject to Change)

2023

Nov 11 (Sat)	HUB RAILFUN Meeting, 12 PM, Chelmsford Public Library, Chelmsford, MA
Nov 18-19 (Sat-Sun)	HUB Modular Railroad display at the Greenberg's Toy & Train Show, Shriner's Auditorium, Wilmington, MA
Nov 18-Jan 15	HUB Exhibit at the Boston Museum of Science, Boston, MA
Nov 24 (Fri)	Submissions deadline for the HUB <i>Headlight</i> Jan-Feb issue
Dec 2-3 (Sat-Sun)	The HUB-sponsored New England Model Train EXPO at the Best Western Royal Plaza Trade Center, Marlborough, MA
Dec 16 (Sat)	HUB Holiday Party at the Common Market, Quincy, MA

2024

Jan 13-15 (Sat-Mon)	HUB Modular Railroad display at the Wenham Museum, Wenham, MA
Jan 20 (Sat)	HUB RAILFUN Meeting
Jan 27-28 (Sat-Sun)	HUB Modular Railroad display at the Amherst Railway Society's Railroad Hobby Show, Big-E Fairgrounds, West Springfield, MA
Feb 1 (Thu)	Submissions deadline for the HUB <i>Headlight</i> Mar-Apr issue
Feb 17 (Sat)	HUB RAILFUN Meeting

RAILFUN.....



NO MOTIONS.....

NO SECONDS.....

NO BUSINESS.....

NO YAWNS.....

HUB Division Headlight
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