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MARCH 2021 | FREE

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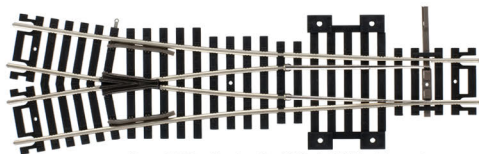
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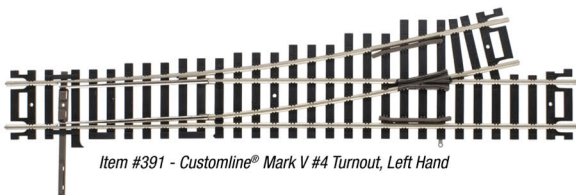
Item #394 - Customline® Mark V #6 Turnout, Right Hand



Item #393 - Customline® Mark V #6 Turnout, Left Hand



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Item #391 - Customline® Mark V #4 Turnout, Left Hand

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Model Railroad Hobbyist | March 2021

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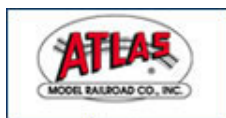
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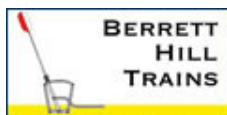
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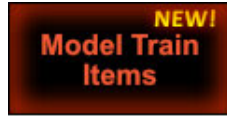
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## **Publisher's Musings: Looking for a web-savvy volunteer ...**

*JOE FUGATE*



## **MRH Website this month: solving Atlas frog issues, ...**

*Compiled by JOE FUGATE*



## **What's Neat: Wrecking cars with aluminum foil, ...**

*KEN PATTERSON*



## **Great running DCC loco on a budget**

*PHIL HARTUNG*



## **Walking tour of Bill Kachel's Pennsylvania layout**

*ROBERT SCHLEICHER*



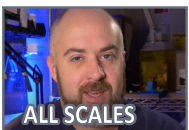
## **Managing individual car movements**

*DOUG MATHESON*



## **Proposal: Incorporating seniority into layout ops**

*JOE FUGATE*



## **Savvy Modeler online: Why the hobby isn't dying**

*Compiled by the MRH STAFF*



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*RICHARD BALE and JEFF SHULTZ*



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March 2021

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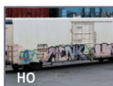
JOE FUGATE

**Limited Modeler: The ubiquitous USRA Mikado**

JIM SIX

**Modeling boxcars with open doors**

STEPHEN KAY

**Replicating modern railcar tagging**

NICK CAMPBELL

**Downsizing a freight house kit to fit the space**

CHRIS MONJE

**Using AK pencils to weather layout details**

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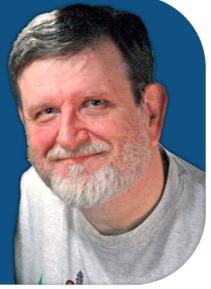


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# PUBLISHER'S MUSINGS



Model Railroad Hobbyist | March 2021

**JOE FUGATE IS LOOKING FOR A  
WEB SAVVY VOLUNTEER ...**



**CAN YOU BELIEVE IT, THE FIRST ISSUE OF MRH  
CAME OUT JANUARY 2009.** That's now 12 years ago. Also believe it or not, our website still has the original now really old issue access pages for those back issues.

That's where my request for a web savvy volunteer comes in. We'd like to update all the back issue access pages to be consistent with our new approach, but we don't have a lot of excess bandwidth right now.

My thinking goes like this: if we can recruit a web-savvy and motivated MRH reader, we will make it worth their while to help us upgrade all the old pages, paying so many dollars per page. So you can make a little hobby mad money and help us get all our pages up to modern standards.

## **Moving to a bookshelf paradigm**

As we update each issue's access landing page, I also want to move to a bookshelf paradigm for reading and downloading back issues.

If you ever used the MRH mobile app, then you know how easy and convenient a bookshelf format makes reading issues.

As a side note, we had to discontinue the free MRH app because Apple and Google kept changing their operating systems and we

could not afford to keep paying programmers to rebuild the app every time Apple or Google made the old app obsolete with major OS updates on an app that was free.

We can duplicate the bookshelf look using plain old web page HTML these days, thanks to HTML5. The image on the right shows what this web page might look like on an Android phone.

You can tap or click on the issue cover and the issue comes up for reading using our online edition. Or if you want to download a PDF copy for offline reading, just tap or click the red button under the



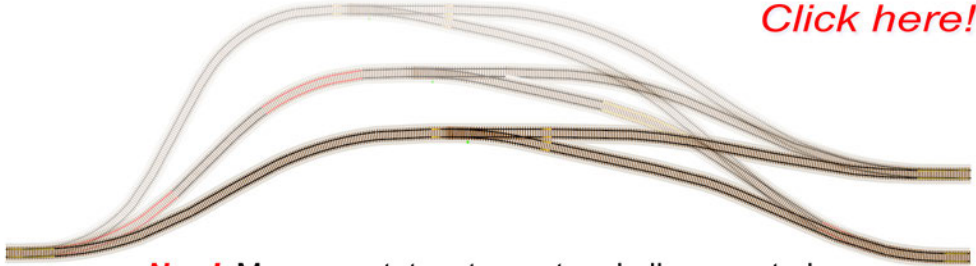
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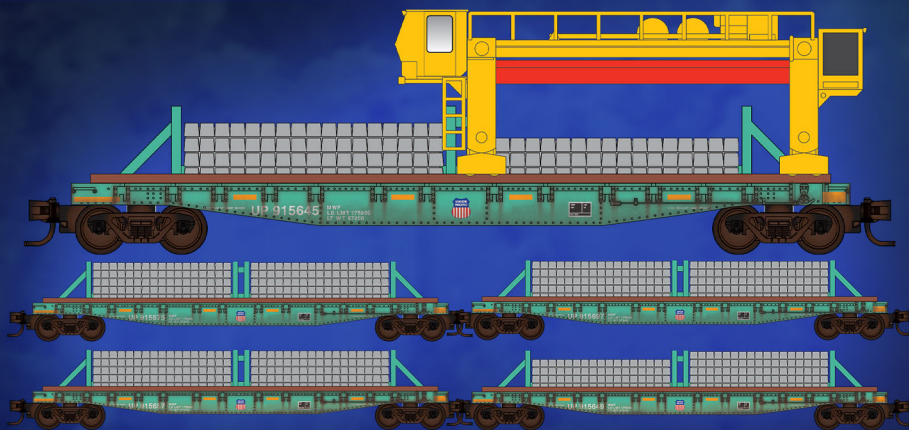
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**N**  
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## PUBLISHER'S MUSINGS | 3

issue cover and it will take you to the download page so you can copy the issue down to your device or computer.

Scroll up or down to get to other issues since we would list them in chronological order. We can also see having a master page that just lists each year and lets you jump to the specific year and save you some scrolling.

### There's more

Besides making it easier to access the back issues with a consistent, more intuitive bookshelf style web page, we also need to move a lot of the back issues to our current online issue provider, FlipHTML5.

Currently we're using three different providers for reading back issues online: Issuu, 3Dissue, and FlipHTML5.



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**WALTHERSPROTO**

# The new EMD FP7 has arrived!

Eight sleek new dual-service thoroughbreds viewable now on [walters.com](http://walters.com).



**WALTHERS** [Click here for complete details](#)

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Many of the older back issues use Flash technology, which as of this year has become obsolete. Browser updates now routinely do not enable Flash, so you have to go out of your way to get Flash installed and running, which is a big pain.

And on top of that, since Flash is now obsolete, installing it can put your computer security at risk. Long story short, we're long overdue to finally get rid of Flash completely.

The modern alternative to Flash is HTML5, that's why we're using FlipHTML5 now. It gives us everything we ever wanted in our online issues as to features, but it's using the mainstream HTML5 features to do it. Much better!

How to volunteer: If you know HTML5 and would like to volunteer to help us get all our back issues consistent and up-to-date, just use our contact form here and select "Volunteer to help" - [mrhmag.com/contact](http://mrhmag.com/contact)

Remember we're willing to pay you per issue updated, so with over 100 issues now, that could add up to some nice mad money for your hobby.

## Update on the new MRH Forum

Last fall I mentioned we're moving our current MRH forum to a new provider that is mobile friendly and will enable posting to the forum using email, as well as getting notified via email when someone has posted to a topic you're following.

The developers have finished writing the conversion code and we're ready to move a copy of our current forum over so you can kick the tires.

Look for an official announcement to "come kick the tires" on the new MRH forum by late March. The new forum web URL will be [forum.mrhmag.com](http://forum.mrhmag.com) and you will be given a login on the new forum using your existing email, but we will be generating all new passwords for the new site, so you will need that before you can login on the new site.



# Ready to run sound decoder equipped locos, but not ready for DCC?

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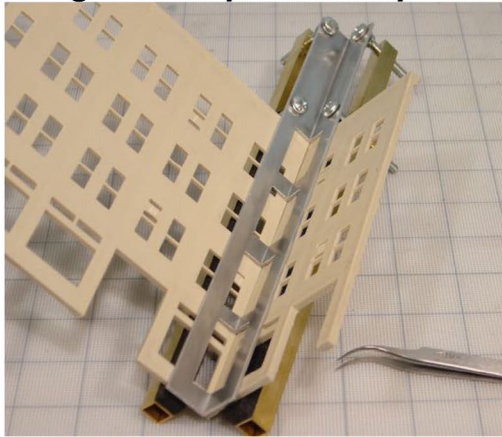
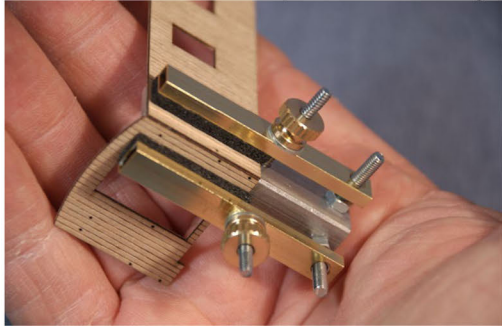
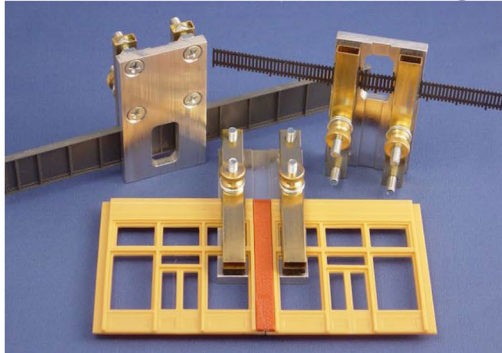
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**PUBLISHER'S MUSINGS | 5**

If you try to go and visit [forum.mrhmag.com](http://forum.mrhmag.com) right now, you will not be able to login. We had a few MRH forum members go play around with the new forum, but what's there is just test junk right now.

We will be overlaying the test junk with all the threads and posts from our current forum later in March and then we'll send all current forum members an invite with the password they need to use to log in.

Watch for the official invite via email.

**TMTV coming attractions**

It's been tough making the transition on TrainMasters TV from studio segments to segments recorded virtually over the internet.

The new content on TrainMasters TV has been a bit slow in coming, but that's about to change now that we're gathering steam on the format change.

We posted some great Greg Baker clinics to TMTV recently. We have more



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# Coming attractions!

Rick Sutton

Photo-realistic modeling

6 clinics



Greg Baker

Realistic scenery & weathering

3 clinics



Geoff Bunza

Layout animation techniques

3 clinics



DIY Jimmy

In-depth modeling & better ops

Monthly episodes



**New TMTV Show!**  
*Jimmy's Trainworks*

*Plus more layout segments soon!*



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segments planned with Greg, including trackwork and scenery techniques.

We also have Rick Sutton shooting in-depth how-to segments on using the highly affordable Affinity Photo editing software to replace the sky in photos, making backdrop photo panoramas, and making hyper-realistic bas-relief structure details.

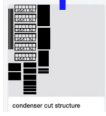
See the photos on the right for a flavor of Rick's work and what he will be demonstrating!



Circuit Print n Cut file



Circuit



condenser cut structure

Next, Geoff Bunza presents how to create some really cool layout animation and LED lighting effects. If you frequent the MRH forum, then you know Geoff's posted a lot of fun projects there. Plus Geoff's always willing to help guide you past any roadblocks.

I am also planning on some DCC Decoded segments with Bob Fallowfield as the host. I'm going to be demystifying turnout frog wiring, helping you pick the best sound decoder for your needs, and I'll be delving into how to make consists and how to take your DCC loco lashups to the next level.



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**RATE THIS ARTICLE**

And finally, we have a new face joining the TrainMasters TV team: DIY Jimmy [photo at right]. If you frequent YouTube for model railroading videos, then you may be familiar with Jimmy already. Here's a link to his channel: [DIY and Digital Railroad](#).



Jimmy's new TrainMasters TV show will be called *Jimmy's TrainWorks*. Jimmy's TMTV show will get into more advanced and in-depth topics than his YouTube videos, covering things like advanced wiring, 3D printing, as well as more traditional modeling topics such as building cool scenery or clever tricks for doing the hobby better, like organizing your workbench.

One thing that we're especially excited about: Jimmy models mainly in N scale, so *finally* you N scalers have one of your own on the TrainMasters TV team. Plus you HO'ers and larger scale modelers, if an N scaler can make it fit, then we who model in the larger scales have no excuse!

**Did you see this article?**



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In **MRH** **RUNNING** **EXTRA**





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## LAST ISSUE RATINGS

Top rated articles in the [Feb 2020 issue](#) of *MRH* are:

**4.7** Modeling water with plexiglass

**4.6** DCC light and sound install

**4.6** Savvy Modeler online: Realistic foam rocks

Issue overall: **4.1**

---

Top rated articles in the [Feb 2020 issue](#) of *Running Extra* are:

**4.8** Make your own static grass tufts

**4.8** Getting Real: Stationary rolling stock projects

**4.6** The case for high narrow benchwork

Issue overall: **4.3**

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THIS  
MONTH

Model Railroad Hobbyist | March 2021

Compiled by **JOE FUGATE**



## Solving Atlas frog issue

MRH forum member **roadglide** (John Buckley) asked for help from the other forum members with an Atlas turnout frog:

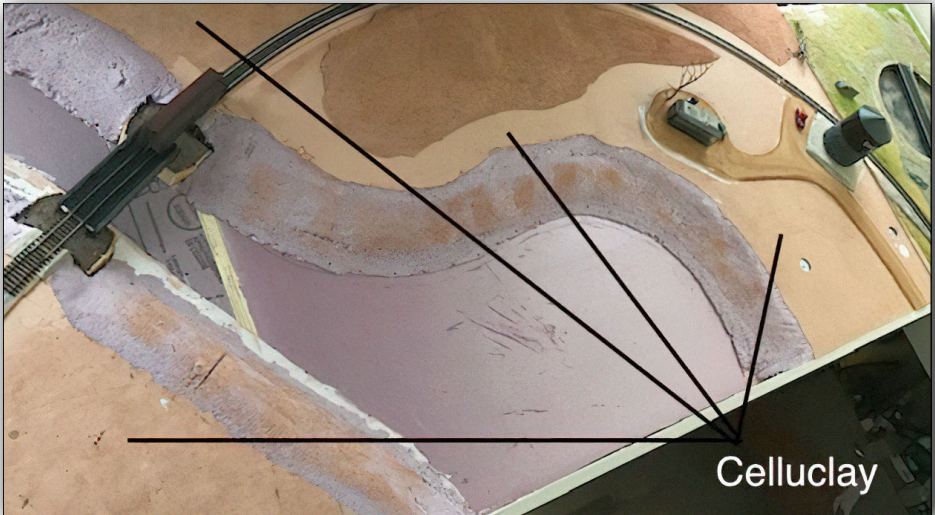
“Dead spot only on the loco right rear side. Going through the straight part of the turnout where the left rear wheels touch the frog does not cause a dead spot. So I am at a loss ...”

Read the recommendations to solve this:



[View the full thread on the MRH website](#)

▶ **MRH'S MONTHLY GREAT MODELER POSTS**



1. Peter Soulikias has been posting a blow-by-blow diary of his this layout scene's progress on the MRH forum.

## Deep module with one track and bridge

MRH forum member **Deemiorgos** (Peter Soulikias) has a construction thread on how he's building a fairly deep scene with a bridge and a tidal estuary:

"A lot of cutting and scenicking ahead for this module ... it will only have three structures:

- A water tower
- A trailer home near the bank of the estuary
- And a little bridge to cross a narrowing of the estuary.

I think having murky water between the contours will make an interesting tide out scene."

See D's thread follow the construction progress!

[View the full thread on the MRH website](#)



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# FAST TRACKS

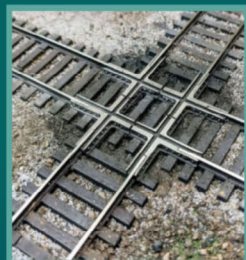
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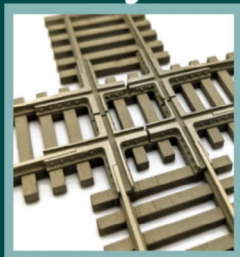
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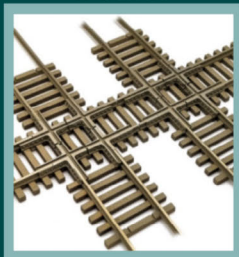
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HO scale 90 degree versions are the first in what will be a large library of popular sizes

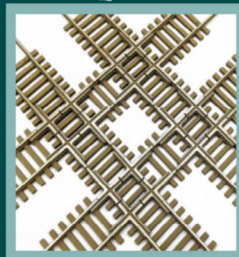
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2. Kirk Wakefield this asked about tools for removing driver crank pins and he received a couple superb suggestions.

## Working with driving rod crank pins

Forum member **kirkifer** (Kirk Wakefield) needed help finding some tool that he could use to loosen steam driver crank pins:

*“What tool is best for loosening the driver crank pins? I would have asked this on [other forums], but most seem very new to model railroading and are probably not removing their loco drivers.”*

Member **Bernd** (Bernd Fanghanel) posted a clever solution:

*“Here's what I used on the crank pins of an Mantua 2-6-6-2 to loosen and tighten them. It's a hex head Allen screw [left, 2].”*

Member **forfoum** (Marc Fournier) recommended some toolsets made specifically for tiny crankpin screws:

*“Try the Moody Tools 58-0161 8-piece set or the Wiha 26592 Nut Driver 7-piece set [right, 2].”*

Check out this thread for more details!

[View the full thread on the \*MRH\* website](#)



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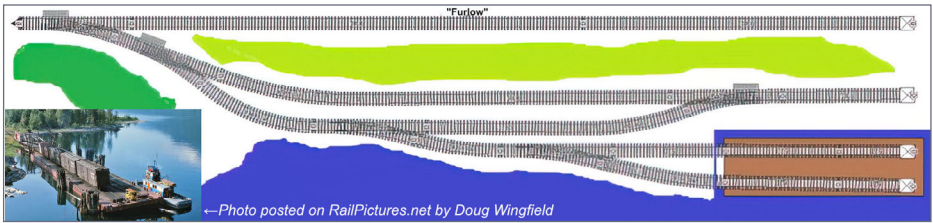
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3. Michael Tondee has an opportunity to expand his layout and he's entertaining the idea of adding a car float operation. The car float photo Michael's using for inspiration was posted on RailPictures.net by Doug Wingfield ([www.railpictures.net/photo/354670](http://www.railpictures.net/photo/354670)).

## Adding a car float operation

*MRH* forum member **Michael T** (Michael Tondee) posted a recent thread of an inspiration he had for a layout expansion.

*"I had finally gotten a large 75 gallon aquarium out of the office/shop here and it opened up some space. Of course, being a Model Rail, my mind immediately turned to what I could be doing with that space."*

Michael continued explaining his thought process:

*"I started thinking about what could be added to the narrow staging shelf, known as 'Furlow,' along one wall. I've always wanted some kind of simple river or lake harbor scene with a railroad carfloat. I found the photo inspiration, here we go, Slocan Lake. Actually, 'Furlow' is meant to be a far off destination that the one hidden staging track represents. I have not thought of a name for the harbor but with my penchant for naming stuff after famous Model Rails, something like 'Hayden-Frary Harbor' would definitely fit."*

Follow along as Michael develops his "Furlow" extension!

View the full blog on the *MRH* website



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## Latest *MRH* Weekly photo fun thread

Every week, a new Weekly Photo Fun thread appears. It's frequently loaded with inspiring photos of great modeling ...

[View the full thread on the \*MRH\* website](#)



4. The top photo is from Modeltruckshop's MTH Dash 9 he recently acquired done up in a CNW to UP transitional paint scheme, following prototype photos as a guide. To the right is a photo posted by ray schofield of his narrow gauge interchange area. We like the period log truck. Visit the weekly *MRH* Photo Fun thread some some inspiring model photos every week!



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# WHAT'S NEAT

column



Model Railroad Hobbyist | March 2021

KEN PATTERSON'S COLUMN THIS MONTH ...



[VIEW READER COMMENTS](#)

- Wrecking cars with aluminum foil
- LED lighting for your layout
- Modeling ideas from above: Snow scenes
- Installing a TCS WOWSound decoder

## WHAT'S NEAT with Ken Patterson

### Modeling wrecked autos



MAR 2021



*[click to play video](#)*

**PHOTOS AND VIDEO OF SUPERB MODELS**

**ON THIS MONTH'S "WHAT'S NEAT" VIDEO,** Mike Budde shows us how he models damaged autos and freight cars using aluminum foil and white glue, John Schindler shows how daisy-chained LED tube lighting can improve the appearance of your layout, Dan Scheidell shows trains in the snow in Oregon, and TCS's Dan Mycio demonstrates installing a modern sound decoder in an older BLI Alco locomotive.

## Mike Budde wrecks cars with tin foil



1. Mike Budde is well known in the hobby for his autorack models and realistic oil paint weathering methods. This month he demonstrates how he models accident damage using aluminum foil. A 1978 Ford Pickup by Atlas will be used as an example.



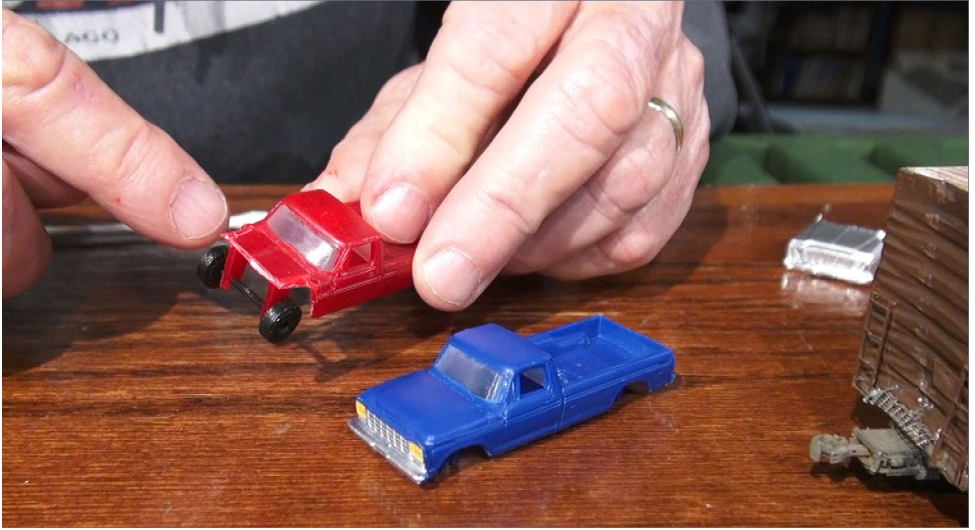
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2. The blue truck represents the model as it comes out of the box. Mike has cut way the body of the red truck where the foil will replace the truck's front end.

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3. Mike wraps the blue truck with a small piece of foil and uses a soft cotton swab to emboss the shape of the truck's body panels in the foil. Rubbing the swab over the foil increases the level of detail.



4. In this photo Mike shows the new foil front end of the truck next to the truck it will be attached to. The foil overlaps the doors of the pickup truck and provides a point to glue the two pieces together.





5. Mike then imitates a rear-end collision to create realistic damage to the foil portion of the red truck.



6. After Mike is satisfied with the damage he has created, he paints the model with primer to hide the line between the plastic and foil, and then paints the entire model with the automotive paint color of his choice. He then fills the inside of the foil with white glue to strengthen the foil body panels.



## LED lighting improvements on John Schindler's layout



7. When Ken last visited John Schindler's layout for the January 2020 "What's Neat," it was illuminated only with fluorescent panel lights down the middle of the room, and some recessed can lights.



Also see the "What's neat this week" weekly video podcast!

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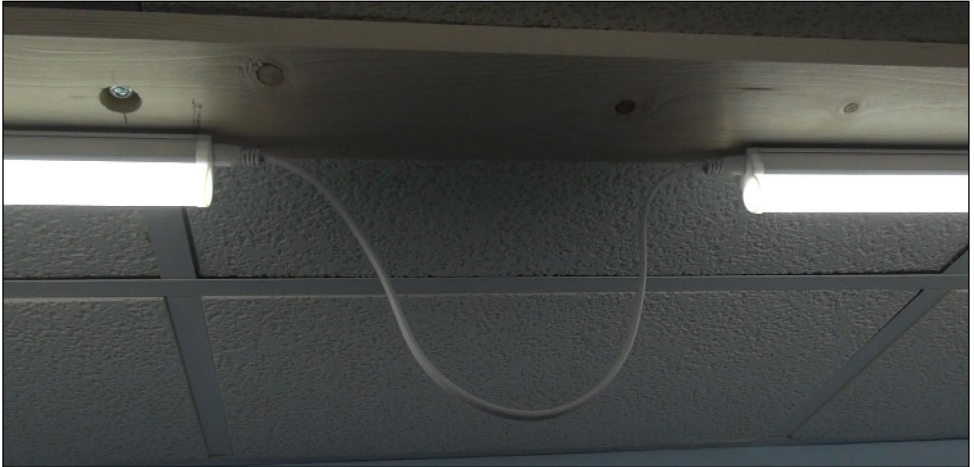
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8. Since then, John has added hardboard valences and 4-foot T5 LED tube lights that daisy-chain together.



9. The lights are mounted to 1x4 boards which are in turn mounted to the ceiling grid with mounting clips that have a threaded bolt built into them. Simply screw a nut onto the bolt and the board is securely mounted.

## Modeling from above: Snowy Oregon



10. Dan Scheidell's drone footage this month features UP and BNSF trains in the snow crossing Pengra Pass on the Cascade Line between Eugene and Crescent Lake, Oregon.

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Modeling boxcars with open doors

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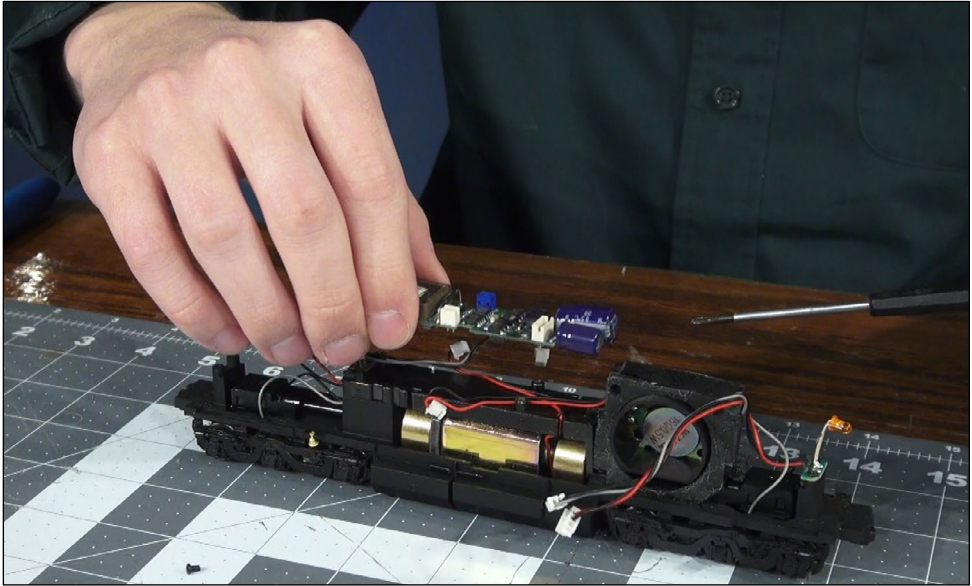
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## Installing up-to-date sound in a BLI RSD-15



11. Dan Mycio from TCS demonstrated the ease with which an older BLI locomotive, in this case an RSD-15, can be upgraded to a modern Wowsound decoder with keep-alive capabilities and a high-bass speaker. Here he begins the process by removing the original factory-installed sound board.

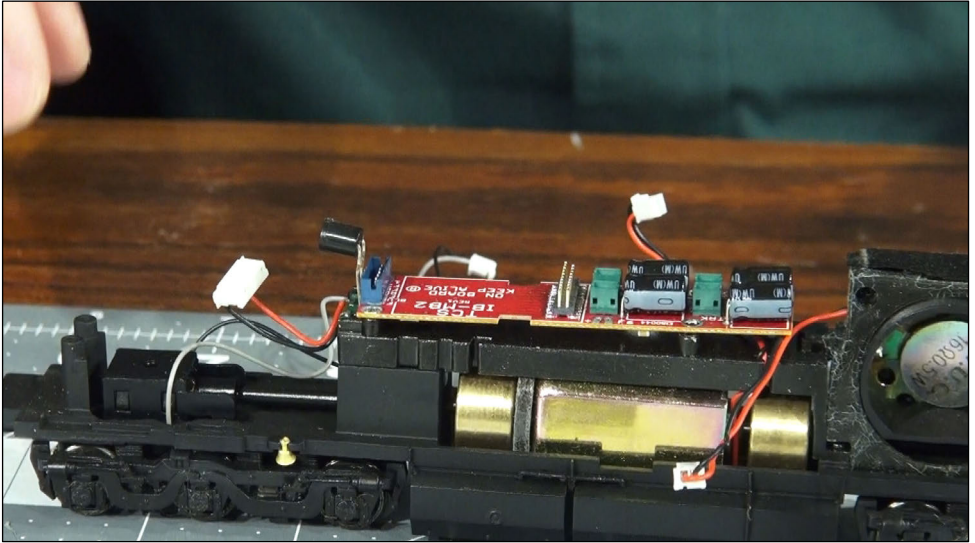


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12. Next, Dan installs a TCS IB-MB2 motherboard with integrated keep-alive capacitors. The motherboard is designed to be a direct replacement for the BLI motherboard.



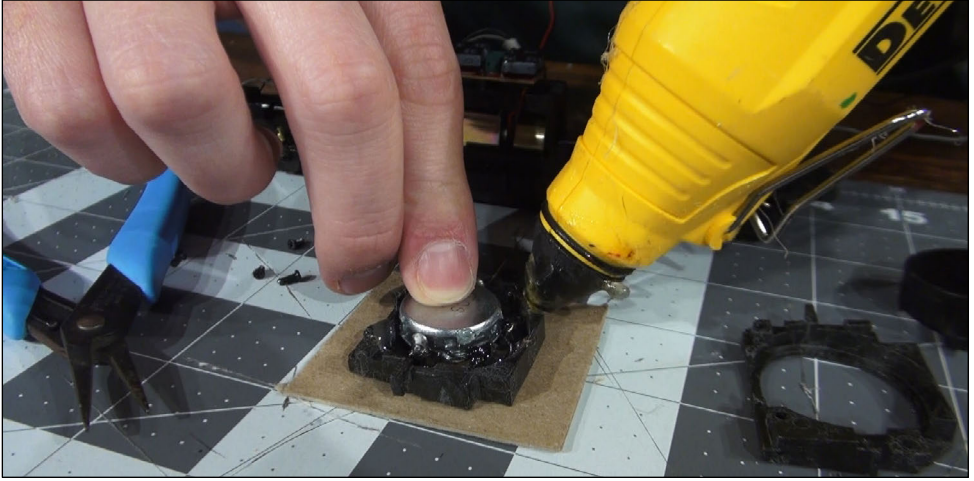
13. Dan holds the 4-watt 4-ohm TCS high-bass speaker that mounts in place of the original factory speaker.



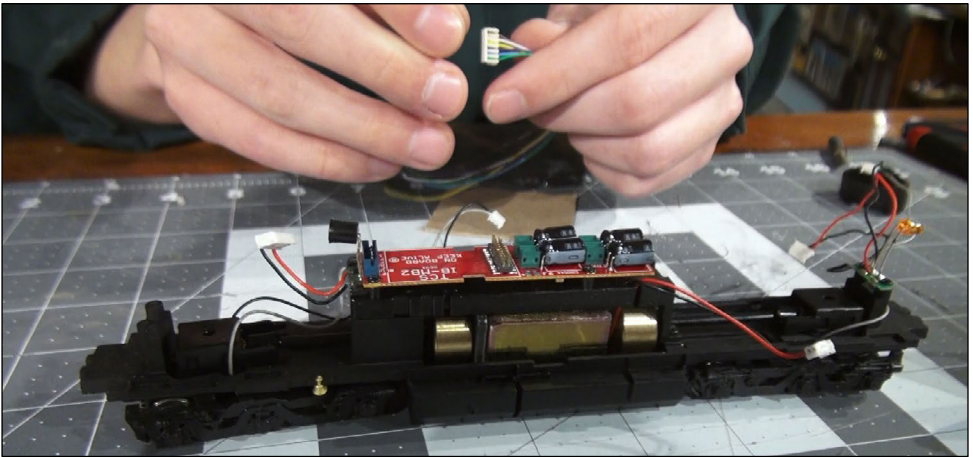
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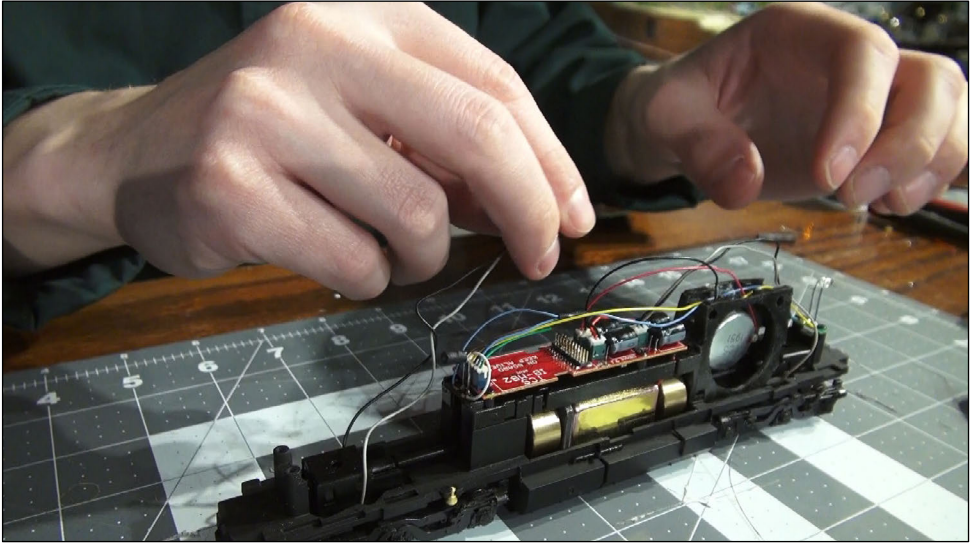
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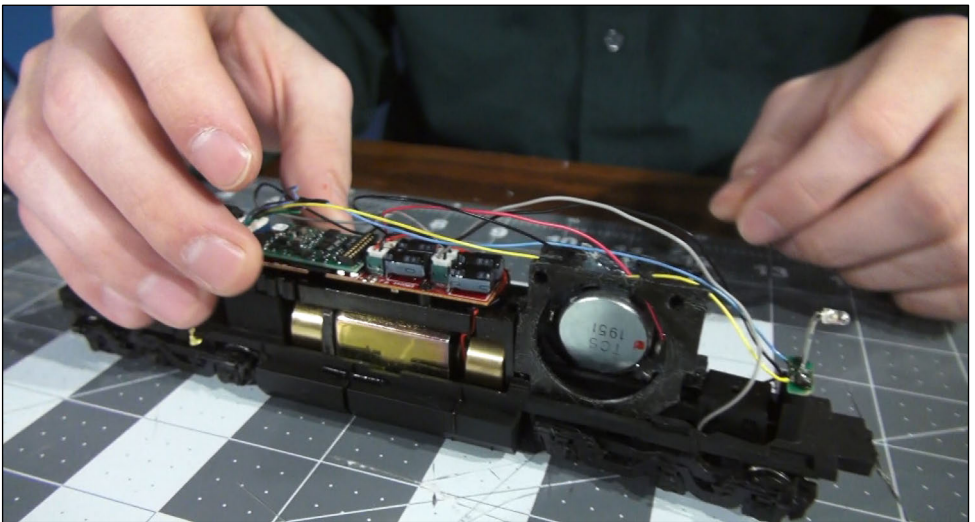
14. After a little trimming of the outside ring of the speaker, Dan secures it in the speaker mount from the RSD-15 with hot glue to eliminate vibration. He also soldered wires leading to a JST two-pin connector to the speaker.



15. To reconnect the LEDs at each end of the locomotive to the motherboard, Dan soldered the wire leads from a TCS single-inline six-connector harness to them. He used the white wire for the front headlight and the yellow for the rear, with the blue common wire completing the circuits to both.



16. Reconnecting the truck power leads and the motor wires was as simple as plugging them into the appropriate sockets on the motherboard. The speaker was also plugged in at this time.



17. Dan finished the inside work by attaching the 21-pin TCS WOWSound decoder to the motherboard by pressing it into place.



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18. Here Dan reattaches the body shell and secures it by reinstalling the couplers.



19. Dan completed the installation with a demonstration of TCS's Audio-Assist feature on the TCS WOWSound decoders, changing the horn and prime mover to the correct sounds by following Audio-Assist through a menu of options that he selected with Ken's TCS UWT-100. The UWT-100 was connected to Ken's Digitrax DCC system through a Digitrax LNWI (LocoNet WIFI Interface). See the video for a demonstration of how simple this is.





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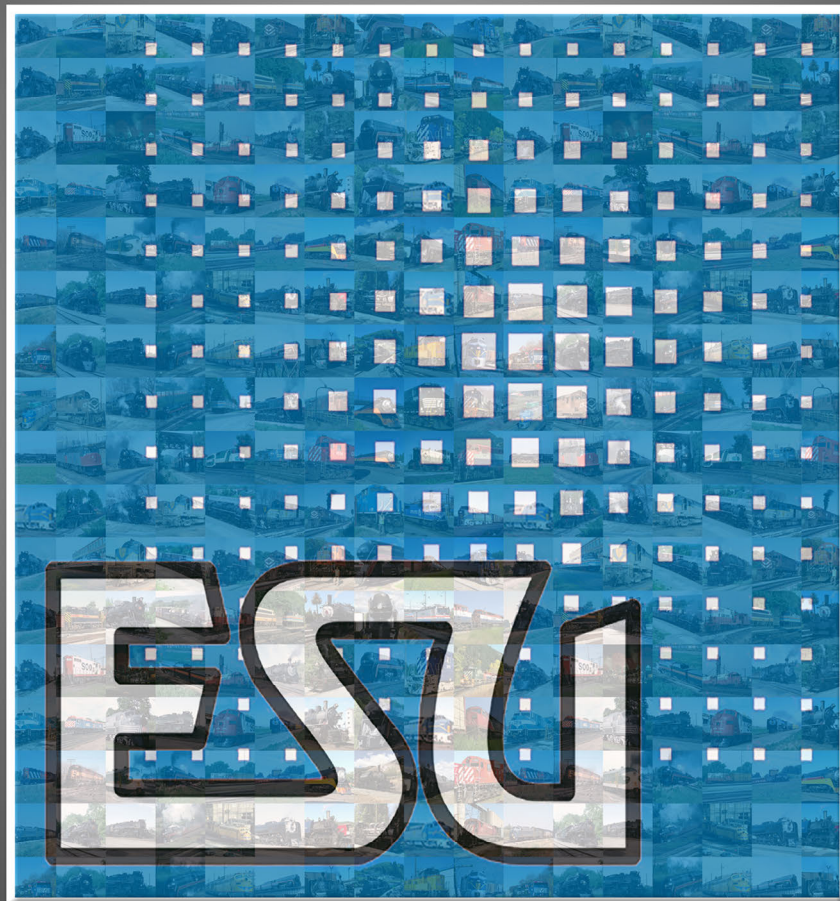
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# Great running DCC loco on a budget



Electrical Impulses

Model Railroad Hobbyist | March 2021

**PHIL HARTUNG SHOWS HOW TO GET A NICE DCC LOCO FOR ABOUT \$100 ...**

1. The Proto 2000 Geeps look very nice and with just a bit of work can be made to run as well as they look. I show you how – for just under \$100 – you can get a great DCC loco for your layout.

**I'VE BEEN IMPRESSED WITH THE VALUE OF THE PROTO2000 (P2K) series** since they began coming out in the late 1990's. For \$65-85 plus shipping, you can get a great running diesel locomotive with just a little elbow



grease. Add a \$30 DCC decoder with Back EMF, and for just over \$100, you've got a sweet DCC loco for your layout!

In this article, I show the steps to go from stock in the box to running like a champ on the railroad with DCC. These steps take about two hours per locomotive.

I've upgraded nine P2K Geeps previously, but didn't document the process. I recently acquired two new-in-box Union Pacific GP9s to go on my Missouri Pacific Falls City Division railroad for the Omaha transfer runs.

## PROTO2000 GEEPS – THE GOOD, THE BAD, AND THE UGLY

P2K Geeps look great, with superbly fine detail and appropriately delicate handrails.

However, they have three major issues that can cause running problems out of the box – my routine tune-up procedures correct all three:

1. Excessive amounts of lubricant, especially on electrical contact locations such as between the truck and frame.
2. Split axle gears – the history and fix has been well-documented online.
3. Poor electrical contact in general, beyond the over-lubricating problem above.

Each of the locomotives I'm upgrading here had the classic over-lubrication issues and all the axle gears were split!

For more on where you can get these locos both used and new for great prices, see Joe Fugate's sidenote, "Finding P2K Geeps."

*Phil's upgrades also work well on P2K's other Geeps and SD locomotives. – ed.*



## Finding P2K Geeps



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Proto 2000 23602 GP9 II Loco Southern Pacific #5686 HO Scale

Brand New

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2. Some of the P2K Geeps available on eBay in the \$65-\$85 range (sans shipping). Most are used, but a few brand new locos show up as well, generally at the higher end of this price range.

## Finding P2K Geeps *Continued ...*

Phil makes a very good point with this article – nice-looking and decent-running DCC diesel locomotives in HO do not need to break the bank. For all the flap about how expensive the hobby is becoming, with just a bit of looking around online, many great budget deals still exist for locos under \$100, such as the Proto2000 Geeps.

Surprise, surprise, you can even find brand new P2K locos in this price range! Here's where to look.

First, there's eBay. Many great deals on used locomotives exist there – just use their search features to find the model and price range you're interested in. I personally prefer buy-it-now listings, because I know exactly the price up front and I won't get sucked into a bidding war, and end up paying too much for an item.

In looking on eBay, I found many P2K GP9s in the \$65-\$85 range, not including shipping [2]. Shipping typically adds another \$10 or so. Most were used, but I did find a few brand new locos as well, but those generally cost a bit more.

I also did a general Google search and then looked at the shopping tab. In this case, I wanted only new items, not used, so I checked the new filter on the left. Again, many nice models can be had [3] for under \$100 (minus shipping).

In fact, I could use some more GP9s, so I'm tempted to pick up a couple more P2Ks in SP gray-and-scarlet, and apply Phil's upgrades to them. The price is certainly right! ■





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Proto 2000 23602 Gp9 II Loco  
Southern Pacific 5686 Ho Scale

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3. Brand new P2K Geeps found with a Google search. See the text for details.





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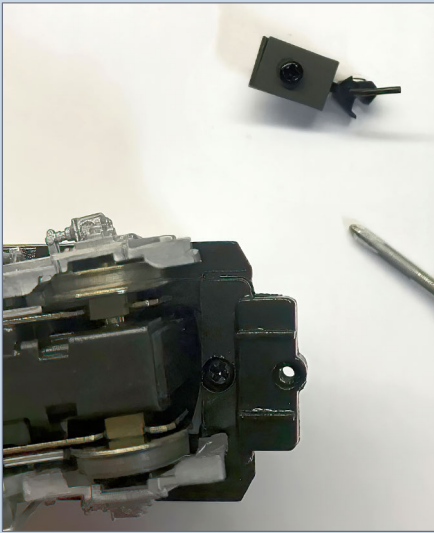



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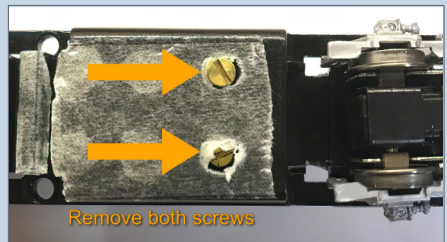
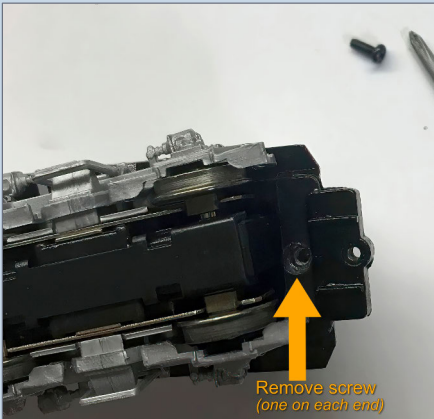
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## STEP 1: Take the loco apart and clean it up

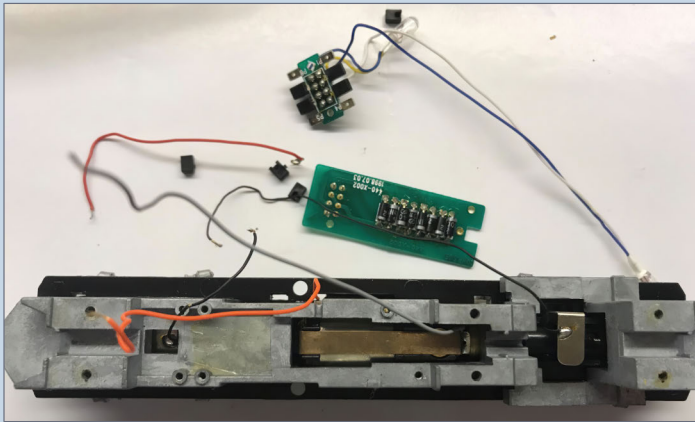


4. To begin, remove the screws holding the coupler boxes and pull the coupler boxes out of the locomotive. Then remove the loco shell. Set aside the screws, couplers, boxes, and shell.

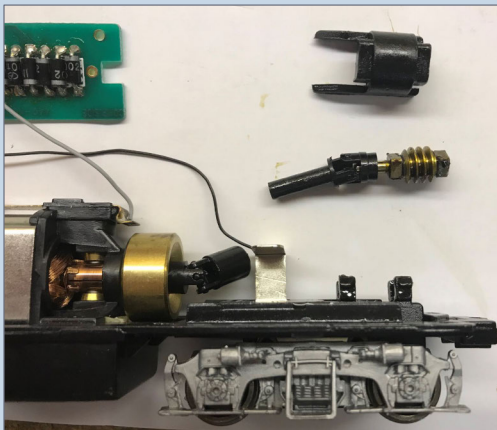


5, 6. Next, remove the four screws that attach the frame to the weight. Two sit immediately behind the coupler screws. The other two are in the fuel tank. Double-stick tape holds on the fuel tank, so it takes a little gentle effort to remove it.

## STEP 1: Take the loco apart and clean it up *Continued ...*



7. Remove the DCC socket from the light board. Remove the light board (two screws), and remove the red frame wire that connects to the DCC socket. Remove the black tabs from the DCC socket on the four corners for the red, black, orange, and gray wires. Finally, remove the weight.



8. Use a small flat screwdriver blade to gently pry the worm gear covers off the trucks. Pull to remove the worm gears and bushings from the truck towers, and then pull the trucks from the chassis. Gently pry the side frames from the trucks, and remove the bottom gear cover (again gently pry loose

using a small-blade screwdriver).

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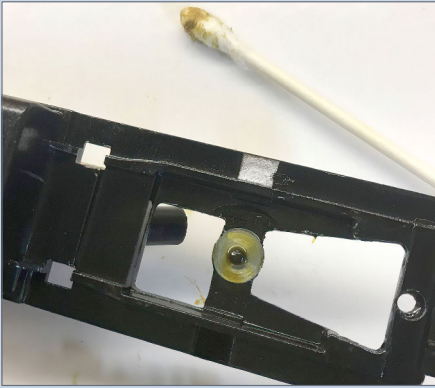


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## STEP 1: Take the loco apart and clean it up *Continued ...*



9. With the trucks removed, check the chassis truck pivot point for excessive lubrication, and check the electrical connection between the truck pivot plate and the chassis. Lubricant often accumulates there, resulting in jerky running unless you bypass the connection with new wiring – more on that later. I use a cotton swab to remove the excess lube.



10. I even found lubricant where there are no moving parts, such as on the weight and the outside of the truck frames! The next step is to slip your screwdriver between the metal plate to pry four tabs to remove the bottom gear cover. Proceed to dismantle the gearbox.

## STEP 1: Take the loco apart and clean it up *Continued ...*



11. Sometimes the P2K grease can solidify into a clay or stiff peanut-butter consistency over time, and the worm gear on my locomotive was close to that. The rest was of a more fluid consistency. The next step is to clean off the lube.

Begin by wiping the excess grease from the gears, worm gears, bushings, and other parts of the trucks, including the frames. After the initial cleaning, bathe all the parts in 70% isopropyl alcohol for a few minutes. Remove any residual lube with an alcohol soaked cotton swab.

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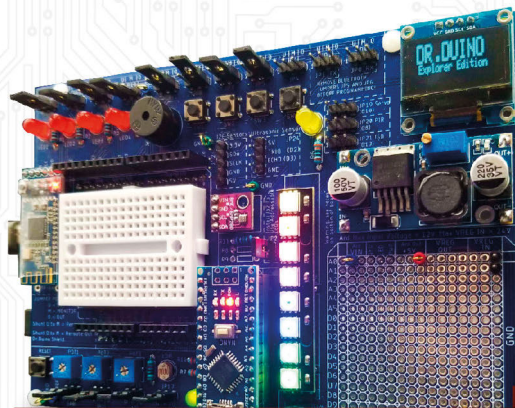
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## STEP 2: Reassemble the wheelset



12. As I was disassembling the trucks, the wheels easily pulled off the axle gears. I found all the gears were split just like the example shown here, and needed replacement.



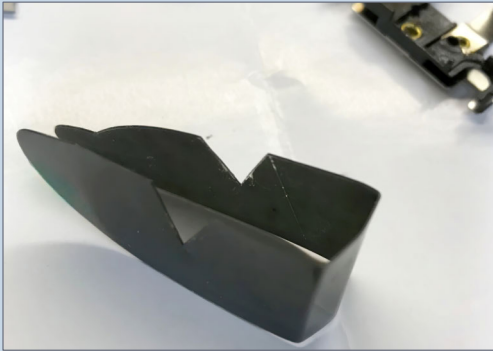
13. Fortunately, Athearn's split axles, sold in packages of six (#60024), are an exact match.



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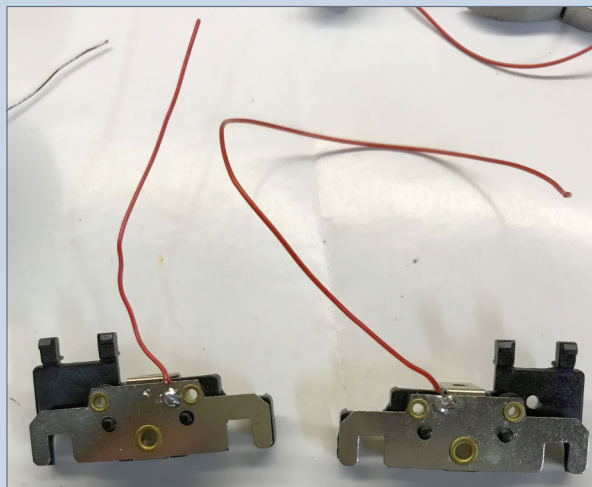
14. I made a wheelset spacer using 0.010" styrene that I salvaged from packaging for a dress shirt collar. I bent it into a U-shape and cut notches into the styrene to hold a wheelset.



15. I assembled the wheelset with the plastic between the bushing and the wheel. When compressed, this made my wheelset just a little narrow. I used an NMRA wheel gauge to make final adjustments.

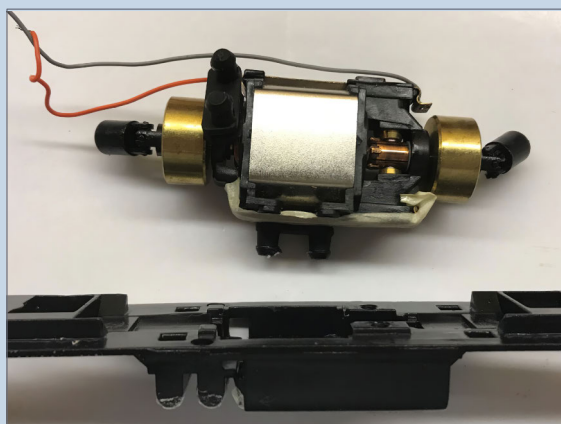


## STEP 3: Bypass the truck-frame electrical connection



16. I soldered some red pickup wires to the metal plate on the pivot pad side frame of each truck, routing the wire directly to the decoder and bypassing the locomotive frame. Using flux, pre-tinning, and working with the soldering iron at its hottest setting

makes for a faster joint and helps avoid melting any of the plastic truck tower body.



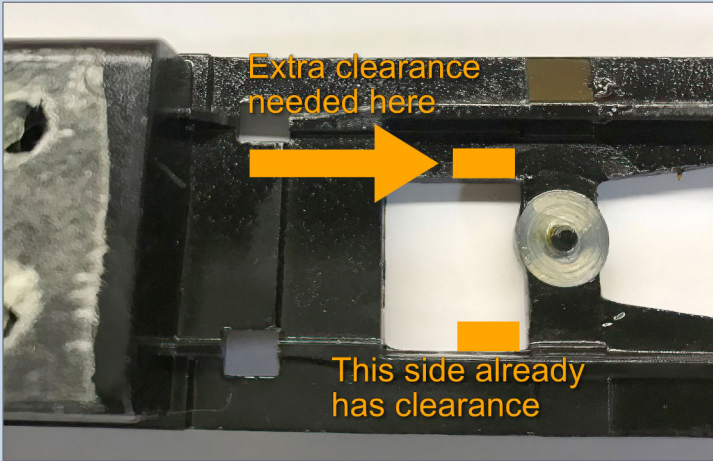
17. I had to tool the frame around the trucks to make clearance for the pickup wires. Removing the motor prevented filings getting into the motor during this step.



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18. The frame has clearance to accommodate the truck's rail pickup tab on the left, but none on the right side. Rather than risk pinching the wire between the truck and the frame, I drilled a notch into the frame.

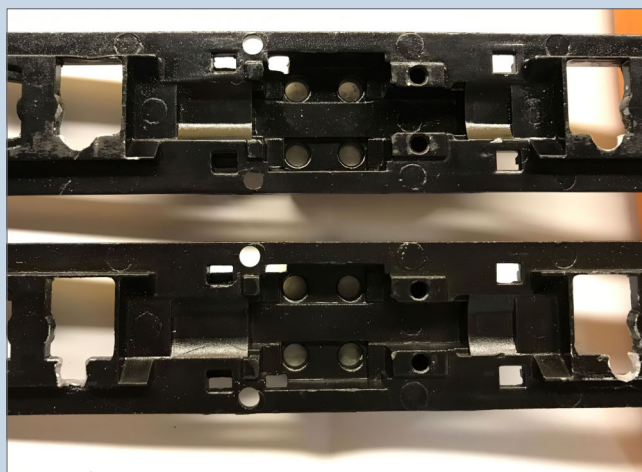


19. I clamped the frame to a board to stabilize it. Then I rough-drilled the needed extra clearance hole using a 3/16" bit. I did the same on the other end of the frame.

## STEP 3: Bypass the truck-frame electrical connection *Continued ...*



20. With the 3/16" holes roughed in, I used a cone grinder bit to smooth the hole and open it into a notch.



21. Both frames with clearance notches added. Note that all edges are smooth and rounded to avoid damaging the wire.



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J. Fugate

## ADDING WHEEL WIPERS

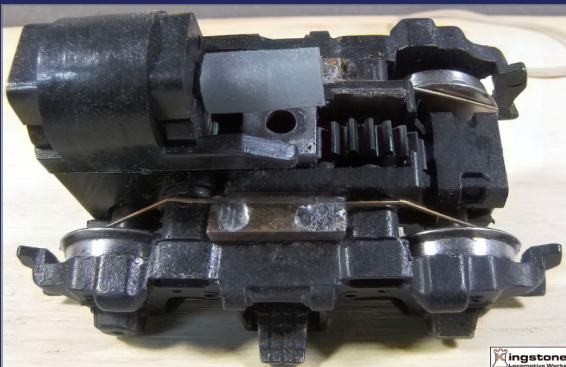
You can take this project one step further by adding wipers to the backside of the loco wheels.

MRH forum member **Bernd** (Bernd Fanghanel) posted this excellent method for adding the wipers to the backs of the wheels. He posted this photo [22] on the forum [[mrhmag.com/node/16333?page=9#comment-340789](http://mrhmag.com/node/16333?page=9#comment-340789)].

Bernd epoxies a short piece of PC board tie to the truck tower, and then solders wipers onto the PC tie. Finally (not shown), he solders a wire to the PC tie and runs it up to the decoder from each side of the truck.

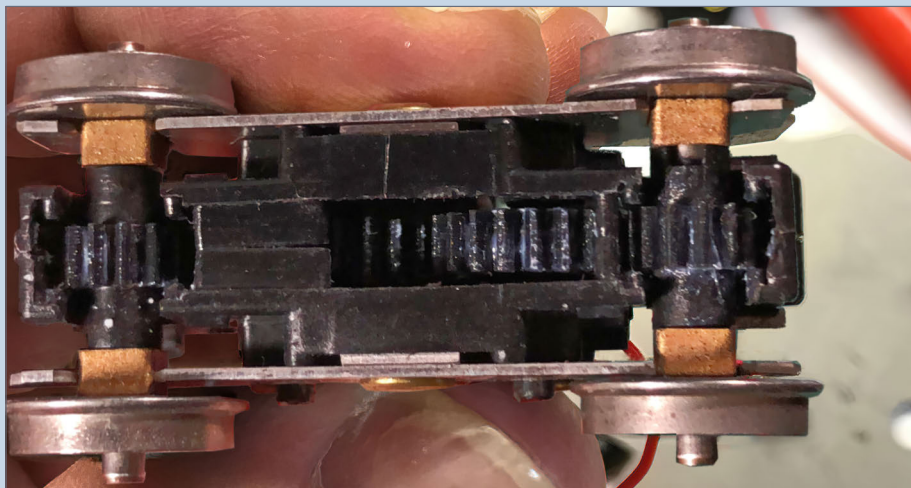
Bernd has also used with a motor tool cutoff disk to cut the L-bracket on the truck tower down to be flush with the metal pivot pad. This makes it easier to add the PC tie to that side of the truck.

In my experience, adding such wipers makes the P2K loco pickup very solid. If you also add a stay-alive circuit – I call it “belt and suspenders” loco pickup – you will get an extremely sure-footed locomotive that’s virtually impossible to stall, and becomes very resistant to poor turnout point contact or dirty/dead spots on the track. Wipers plus stay-alive give you battery-power level reliability!

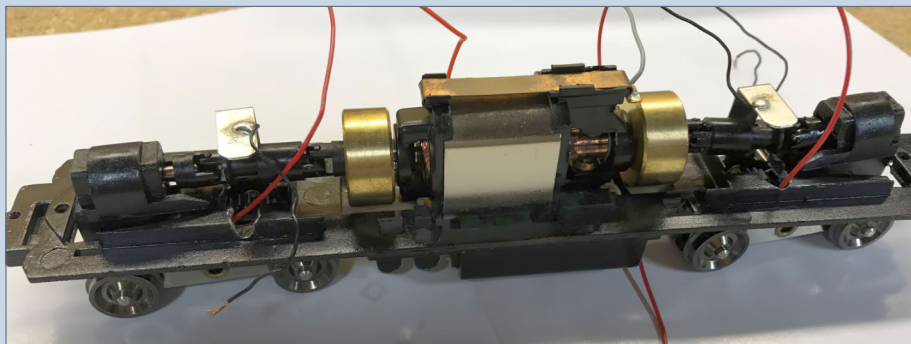


22. Bernd’s method of adding wheel wipers to a diesel loco truck tower.

## STEP 4: Reassembly



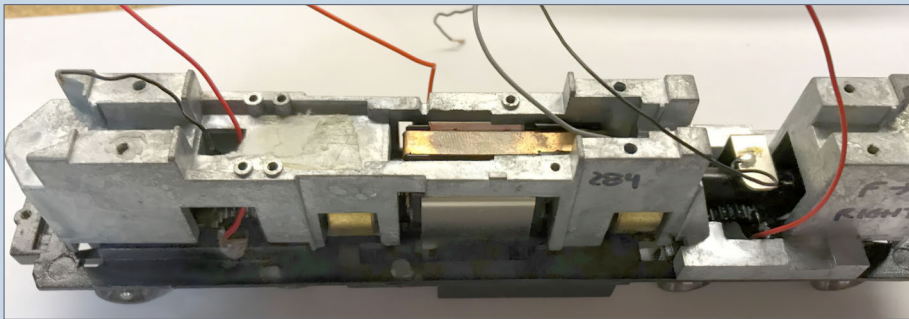
23. Reassemble the trucks. Add some light lubricant to the gear and wheel bushings. Add only a small bit of grease to the gears.



24. I reinstalled the motor, then put the trucks and worm gears back on the frame. Note I soldered also a black wire to each truck tower L bracket. At this point I tested the motor/mechanism with a 9V battery to ensure the mechanism ran free of binds.



## STEP 4: Reassembly *Continued* ...



25. Install the weight, pulling the wires from the truck and motor up the appropriate notches. Screw the weight back on with the four screws removed earlier.

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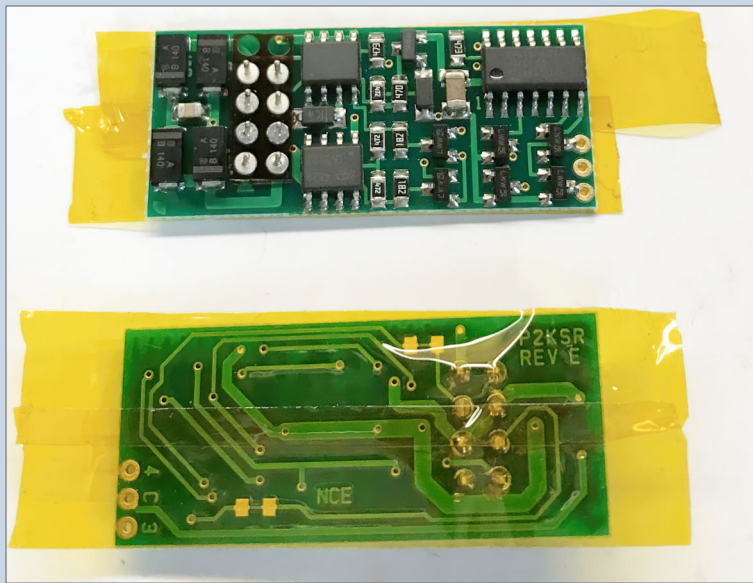
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## STEP 5: Decoder and LED light installation



26. I used NCE P2KSR drop-in decoders ([www.litchfieldstation.com/product/5240108-nce-ho-dcc-decoder-locospecific-life-like-gp-and-sd](http://www.litchfieldstation.com/product/5240108-nce-ho-dcc-decoder-locospecific-life-like-gp-and-sd)), but you can also get drop-in decoders from Digitrax ([www.digitrax.com/products/mobile-decoders/dh16510](http://www.digitrax.com/products/mobile-decoders/dh16510)) – see the shopping list link at the end of this article for more. Insulate the back of the P2KSR with Kapton tape. Any HO decoder with a short wire harness that plugs into an 8-pin socket will work, but you have to manage the decoder harness wires to fit under the shell.



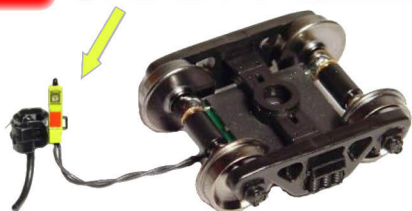
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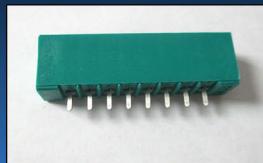
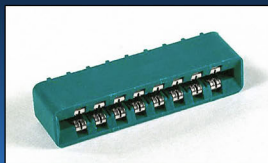
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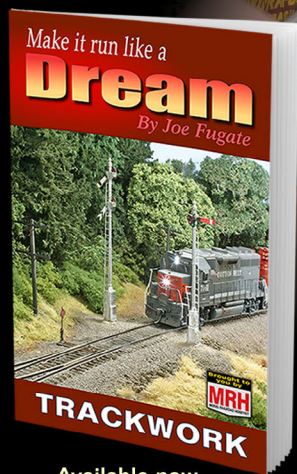
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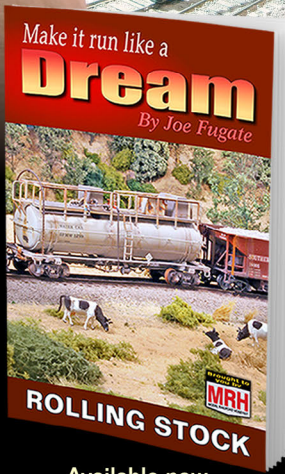
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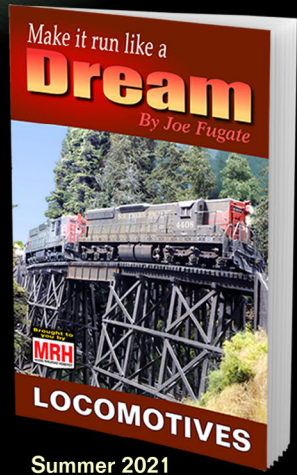
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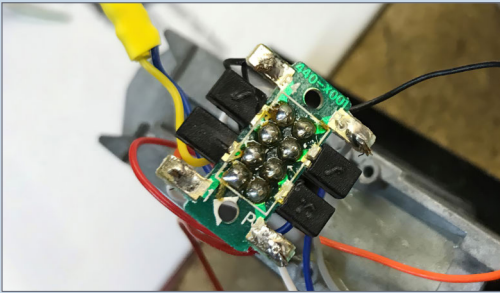
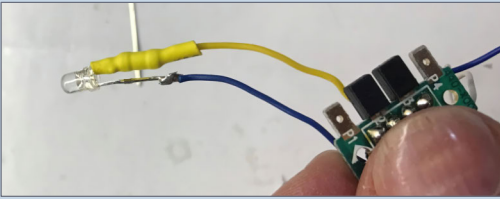
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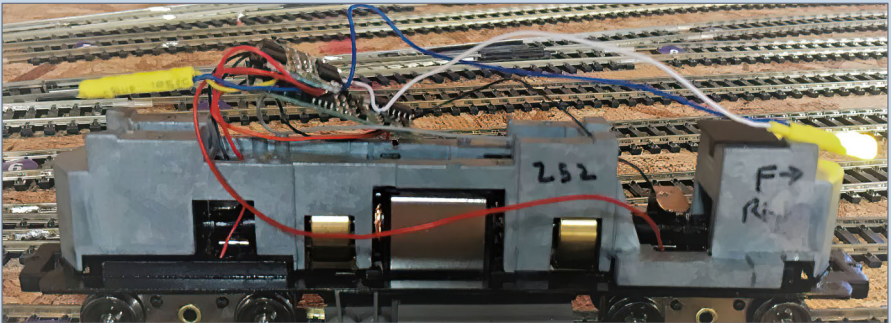
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## STEP 5: Decoder and LED light *Continued ...*



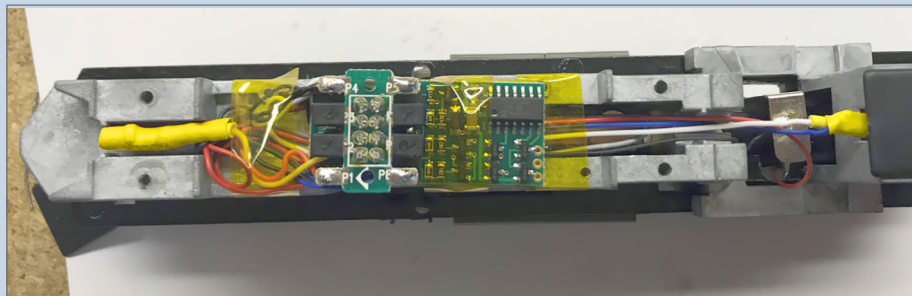
27, 28. I replaced the stock bulbs with 3mm warm white LEDs. I put a 1K resistor on the white/yellow wires. These connect to the cathode of the LED, which is the shorter lead. (the Digitrax drop-in decoder has onboard resistors so you don't need the separate resistor – ed). The blue wire runs to the LED anode, which has the shorter lead. I

put shrink-tubing around the resistor and another larger piece of shrink-tubing around the whole LED assembly.



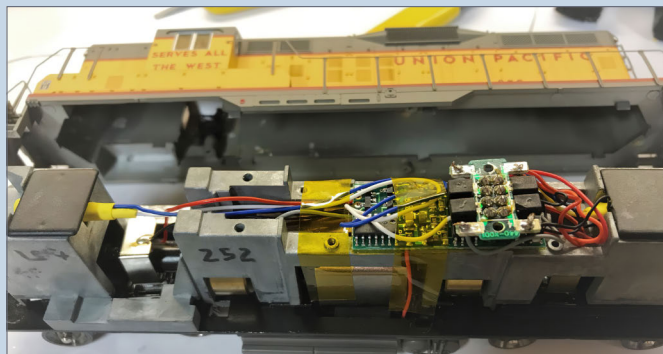
29. I soldered the red, black, orange, and gray wires back to the DCC socket and plugged in the decoder. I set the address and a few other CVs on the programming track before moving the loco onto the layout for a final test without the shell. It all checked out, so back to the work bench to tape down the wires and add the shell.

## STEP 6: Tidy up and add the shell



30. I tidied-up the wiring and use Kapton tape to keep the wires and lights in place.

Note: before proceeding with final assembly, I always check if the locomotive has any added detail parts, such as winterization hatches, that require drilling holes through the shell. It is easier to do this from inside the shell, so I take care of that step before assembly.



31. Press the fuel tank back onto the frame. Put the shell on and install the couplers back into the slots at the ends. I replaced the P2K couplers with Kadee #5 or equivalent. Be careful of the plastic coupler lift bar on the pilot, as it can interfere with sliding the coupler box in. I use tweezers or a small screwdriver to gently pry the lift bar out of the way while installing the coupler box.





32. Put the loco back on the layout and program the lighting as you see fit. Give the loco a good break-in and enjoy your nice-running budget locomotive!

So if you shop around a bit, for just over \$100, you can get a great running DCC locomotive!

To get a shopping list for this article, visit the *MRH* website at this link: [mrhmag.com/magazine/mrh2021-03/dcc-install#shopping](http://mrhmag.com/magazine/mrh2021-03/dcc-install#shopping)



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## PHIL HARTUNG



Thanks to his grandfather's 40-year career with Union Pacific, Phil Hartung developed an interest in railroads and railroad models since he was 9. He has built several model railroads, dabbled in HO<sub>N3</sub>, and his last two layouts have incorporated his grandfather's Lionel O-gauge on a level below the HO deck.

Phil has been using NCE DCC since 1998 and has installed decoders on his own equipment since that time. He has gradually added LEDs and a few sound installs to his skillset. In addition to DCC, the current layout had been fully signaled, but he took the signaling out when he shifted from mainline running to local switching as his layout's focus.

Phil's medium sized layout represents the Missouri Pacific in Omaha circa 1955, incorporating transfer runs from connecting railroads (CB&Q, RI, UP, CNW, IC, CGW).

Phil especially focuses on making the railroad run well, taking special care with his trackwork and rolling stock. He believes "a layout without scenery that runs great will get used – a layout with great scenery that doesn't run well collects dust." He's also a member of the Operations Special Interest Group and Missouri Pacific Historical Society. Phil hosts operating sessions a few times a year for regional modelers, and annually for operators from Utah that come up to the annual Idaho Falls train show.

Phil lives in Idaho Falls, ID with his wife. He works as a Program Manager for a government contractor. He also enjoys cooking, baseball, traveling and visiting his grandson in Utah. ■



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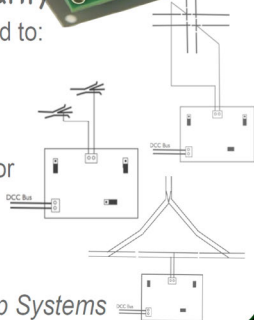
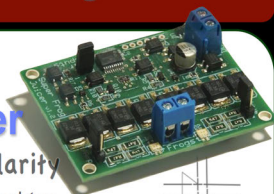
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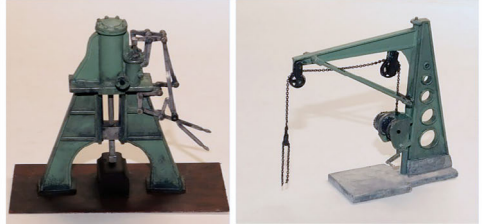
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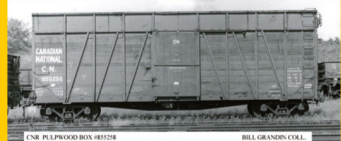
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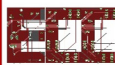
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MRH has mapped the old familiar colors to readily-available acrylic paints.



MRH's Floquil / PollyScale Paint Equivalents Conversion Chart - 1

Floquil / PollyScale Color (approx.)	Model Number	Yulex / Modelx	MOOREx	Notes
Primer Gray	MM 4763	VMA F1505	16-12	
Engine Black	MM 4888	ML 20008 VMA F1.251	16-01	
Stream Power Black	MM 4950	VMA F1.657	16-44B	
City Black	MM 4791	VMA F1.621	16-44*	
Weathered (Charcoal) Black	MM 4950	ML 20003 VMA F1.644	16-05	
Reflex Gray	MM 4887 MM 4941	VMA F1.045	16-04	
Reflex White	MM 4872	ML 20004 VMA F1.035	16-02	
Grass Black	MM 4883	ML 20002 VMA F1.025	16-03	
Caboose Red	MM 4827 MM 4831	MM 4813 with 20% black pigment ML 20001 VMA F1.012	16-08	

\*Indicates a close but not exact match. All MOOREx paints are a sampling finish.  
 \*Yulex Modelx and Yulex Modelx are the same as the MOOREx series for the same color.  
 \*MOOREx series - Reflex Gray is a shade lighter than the old PollyScale Reflex Gray.  
 \*Yulex Modelx series - Reflex Gray is a shade lighter than the old PollyScale Reflex Gray.  
 \*Yulex Modelx series - Caboose Red is a shade lighter than the old PollyScale Caboose Red.  
 \*Yulex Modelx series - Grass Black is a close match to the old PollyScale Grass Black but medium to get closer.

MRH's Floquil / PollyScale Paint Equivalents Conversion Chart - 2

Floquil / PollyScale Color (approx.)	Model Number	Yulex / Modelx	MOOREx	Notes
Tuscan	MM 4050*	VMA F1.036	16-16	
Reflex Orange	MM 4882*	VMA F1.063	16-09	
Reflex Yellow	MM 4879	VMA F1.026	16-10	
Roof Brown	MM 4864	ML 20009 VMA F1.249	16-17B	
Railroad Te Brown	MM 4885	ML 20005 VMA F1.649	16-40P* 16-40Q* 16-40R* 16-04	
Rail Brown	MM 4708*	ML 20001 VMA F1.039	16-13	
Rust	MM 4825	ML 20005 VMA F1.027	16-10Z	
Concrete	MM 4876	VMA F1.047* VMA F1.013 VMA F1.012	16-11*	
Agate	MM 4875	ML 20005 VMA F1.043	16-09*	16-09P* 16-09Q* 16-09R*

\*Indicates a close but not exact match. All MOOREx paints are a sampling finish.  
 \*Yulex Modelx and Yulex Modelx are the same as the MOOREx series for the same color.  
 \*MOOREx series - Reflex Orange is a shade lighter than the old PollyScale Reflex Orange.  
 \*MOOREx series - Reflex Yellow is a shade lighter than the old PollyScale Reflex Yellow.  
 \*MOOREx series - Roof Brown is a shade lighter than the old PollyScale Roof Brown.  
 \*MOOREx series - Railroad Te Brown is a shade lighter than the old PollyScale Railroad Te Brown.  
 \*MOOREx series - Rail Brown is a shade lighter than the old PollyScale Rail Brown.  
 \*MOOREx series - Rust is a shade lighter than the old PollyScale Rust.  
 \*MOOREx series - Concrete is a shade lighter than the old PollyScale Concrete.  
 \*MOOREx series - Agate is a shade lighter than the old PollyScale Agate.

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# Modeling from the prototype



**Robert Schleicher** looks at Bill Kachel's Pennsylvania Railroad Cosmopolitan Division in a walkaround tour ...



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## 1. A Pennsy class B1 switcher under catenary at Harrisburg passenger terminal.

Model Railroad Hobbyist | March 2021



**BILL KACHEL'S LAYOUT IS ONE THE MOST COMPLEX MODEL RAILROADS** we have seen. His goal was to recreate the action in the heart of the Pennsylvania Railroad, but also include portions of the Lehigh Valley, Reading, Baltimore and Ohio, and New Haven in HO scale. His layout spans the area from Pittsburgh to New York City.

Even with a massive 52 x 88 foot layout space and 2,600 square feet of benchwork, the layout could contain only a tiny percentage of the line. Bill opted to select just the signature places, trackwork and structures as they were in 1965. They are all there in representation: Zoo Tower, the Altoona shops, Horseshoe Curve, New York Harbor, Sunnyside Yard, Hell Gate Bridge, Penn Station, and more.

Bill began construction in 1982. By 1992, he had 1,600 square feet of layout completed to represent the Pennsylvania Railroad from Newark, New Jersey, west through Harrisburg and Altoona to Pittsburgh, Pennsylvania.

He spent the next 10 years adding another 1,000 square feet of layout to include the mainline from Newark northeast through New York City toward New Haven, Connecticut via the Hell Gate Bridge. The newest extension includes replicas of signature buildings on and around Manhattan Island, including Penn Station, the Hell Gate Bridge, the power plants, and the downtown around the Flatiron building, as well as the Stuyvesant area of the city.



Bill designed his layout for operation of all of the different types of trains that worked the area. Switchers operate on the docks and in the Altoona shops. Local freights, mainline passenger trains, and freights flood the four-track mainline through the Northeast Corridor.

Helixes serve three large staging yards holding trains bound for Washington, Philadelphia, New Haven, and Chicago. All locomotives are equipped with Digitrax DCC and sound, with about 24 outlets located around the layout for tethered throttles.

Layout construction is typical open-grid, with mostly flex track and ready-laid turnouts. Bill chose code 100 rail for the mainline and code 70 for the industrial areas. He laid the trackwork to match the standard designs of the full-size Pennsy, with gentle curve easements and smooth vertical curves.

The maze of overhead wires captures attention. Those wires are the often overlooked signature of northeastern railroading. Bill scratchbuilt thousands of feet of authentic overhead catenary that replicate the electrified areas from Newark, New Jersey west to Enola, Pennsylvania, and north to New Haven, Connecticut.

The wires are not electrified, but all of the electric locomotives' pantographs ride on the wires. The supporting towers' vertical posts are 1/8" brazing rod, with crosspieces in code 70 and code 100 rail. The braces are 1/16" brazing rod with most supports 1/32" wire.

Bill soldered the catenary itself together with .010" steel wire in jigs. There are also thousands of high-tension power lines, as well local power poles with full rigging.



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## **BILL KACHEL'S 10 SIGNIFICANT FACTORS THAT MAXIMIZED THE SATISFACTION FROM CREATING THIS MODEL RAILROAD:**

### **1. Why did you select this particular railroad?**

I grew up alongside the Pennsylvania Railroad in my area near the electrified main line. I would stop and watch the mighty Pennsylvania GG1 in action.

### **2. How did you determine which portion of the real railroad to model?**

In modeling the Pennsylvania Railroad, I had to go from the beginning to the end, which meant I started in New York and had to go through Pittsburgh. The remainder to Chicago would be a staging area, as well as Washington and Philadelphia.

### **3. How did you decide which era or eras to recreate?**

The era I decided to model would be at the end of the old box-cab electrics and the beginning of modern diesels.

### **4. What type of freight and passenger operations did you recreate?**

I wanted to model the as much of the action as possible on the Pennsylvania Railroad's electrified main line, and the area north of Newark.

### **5. What were the most important factors you considered when designing the layout to fit the space?**

The space I chose was a basement as big as the house on top. I would own the basement and my wife would own the house on top.

### **6. What are the defining (signature) structures?**

New York City's skyscrapers, Hell Gate Bridge, the original Penn Station in New York, and the waterfront for ocean-going ships

## BILL KACHEL'S 10 SIGNIFICANT FACTORS THAT MAXIMIZED THE SATISFACTION FROM CREATING THIS MODEL RAILROAD *CONTINUED*:

and tugs. I wanted to model Pittsburgh and the structures there as well.

### **7. What are the defining (signature) scenes?**

The Pittsburgh area had to have a large steel mill as a huge part of the area. The scenes I most wanted to model were the Horseshoe Curve, the Altoona area, the Penn Station large complex, Sunnyside passenger yard, and the dockside coal loaders with – of course – coal unloaders.

### **8. How did you decide on the locomotive roster?**

Locomotives would stay at the 1965 era, give or take a few years.

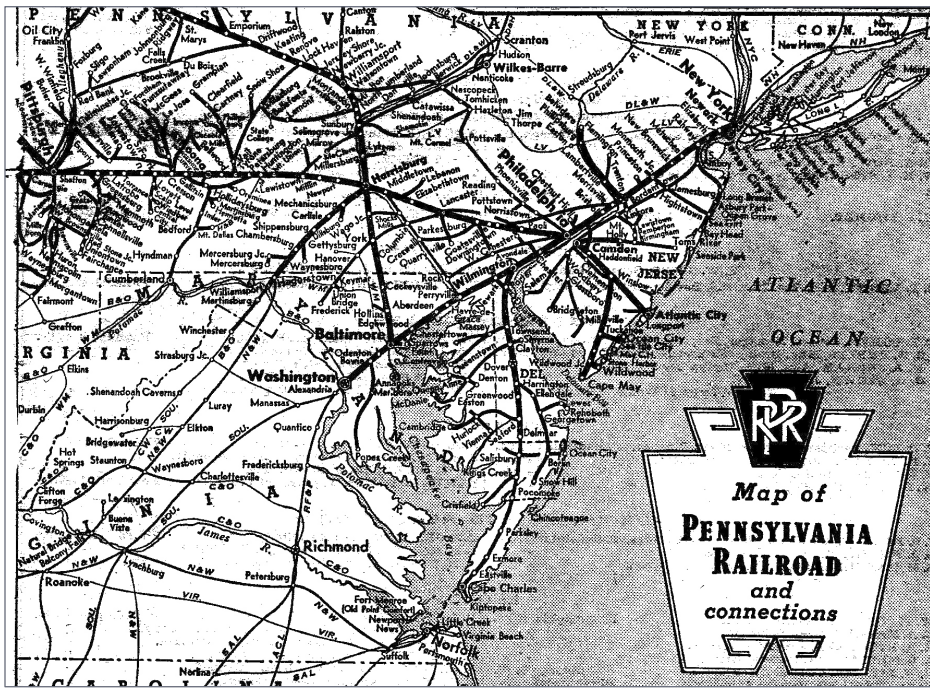
### **9. How did you decide on the mix of cars in the freight car fleet?**

The freight car era would also stay within the 1965 era with a few modern cars here and there that looked awesome! The passenger car fleet is also in the 1965 era, with some going back a few years.

### **10. What research sources were most useful?**

My source of reference in building and modeling was mostly from my many years of railfanning starting in 1957. I have every book that has been published on the Pennsylvania Railroad, and many books on locomotives. ■





2. Bill recreated stretches from Pittsburgh on the upper left, eastbound through Altoona and Harrisburg, then skipping to Newark and New York on the far upper right. From the passenger operation schedules in the April 1961 *Official Guide of the Railways*.

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## HOBOKEN AND NEWARK, NJ



3. The Hoboken, New Jersey, passenger terminal is one of the first sights you see when entering Bill's empire. Newark, NJ is down the hill to the right. Manhattan is around the curve to the right from Hoboken Terminal.



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4. (Above) This rotary dumper serves the Newark Bay Powerhouse. Bill scratchbuilt it from brass.

5. (Below) A panoramic view of Newark Bay harbor. On the far left, a rotary dumper loads coal onto a barge [7]. The Lehigh Valley Railroad bridge at Newark Bay's entrance is to the right [6].





6. The Lehigh Valley Railroad's lift bridge spans the entrance to Newark Bay. Bill scratchbuilt the bridge with Central Valley girders and styrene panels.



7. Bill built this rotary dumper based on a prototype from the Lehigh Valley Railroad to load barges at Newark Bay.



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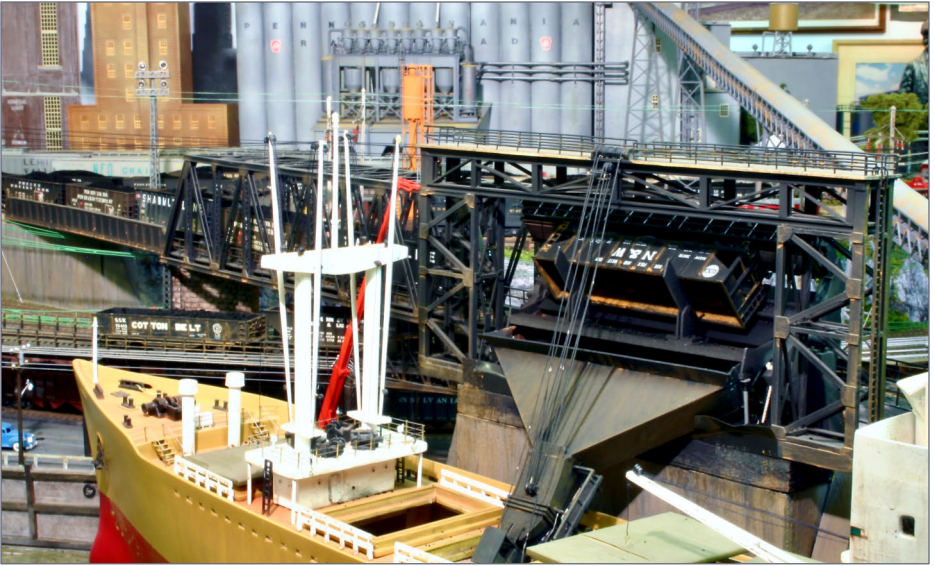
8. A GG1 coming off the Newark Bay lift bridge.

## NEW YORK HARBOR



9. A panoramic view of New York Harbor. The docks at the left serve various ships. A 12-foot-long grain conveyor leads across the layout from the elevator yard at right to surge bins on the harbor at left.





10. An operational rotary dump loads coal onto waiting ships in New York Harbor.



11. Bill replicated examples of all the important industries of a typical ocean-side harbor, including a freight car ferry.



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12. Bill motorized two traveling cranes to recreate some of the action at the New York docks.



13. A compressed model of one of the warehouses that served New York Harbor occupies one of the piers.

## PHILADELPHIA



14. Down the line to Philadelphia. Bill wired city electrical and phone poles in addition to the maze of catenary wires on the mainline. The smaller industrial buildings represent some of the challenging operational aspects of the Pennsylvania Railroad prototype.



15. The layout features an accurate replica of Zoo Tower in Philadelphia, which monitored one of the most active junctions on the Pennsy.



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## HARRISBURG



16. Harrisburg, Pennsylvania wraps around a layout dividing wall. Rockville Tower and Enola Shops are to the left; the station is to the right. The yellow buildings in the foreground are the Palumbo Cement Works.



17. The covered passenger sheds at the Harrisburg passenger terminal are situated in the electrified portion of the layout.



18. A GG1 drifts past the Enola shops. Next stop is the Harrisburg Station.



19. Two FAs and a GP30 take on fuel at the Enola shops.



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20. Two F-units take on sand at Enola.



21. The Enola locomotive shops serviced both diesels and electric locomotives. Here we see some Pennsy passenger power.



22. The Rockville Tower at Enola is one of dozens of signature buildings that define the layout's locale.

## WESTWARD TO PITTSBURGH



23. Just down the line from Harrisburg, these grain elevators at Spruce Creek provide a bucolic contrast to the industrial areas on other portions of the layout.



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24. A geep works the limestone quarry at Spruce Creek.



25. The Juniata shops in Altoona are on the non-electrified portion of the layout. The shops are busy today, with a variety of locomotives there for service.





26. A freight train and a passenger train glides downhill at Horseshoe Curve. Notice the K4 locomotive on display in the park.



27. The open hearth furnace at the Sgrignoli Steel complex in Pittsburgh. Bill put Pittsburgh on its own peninsula.

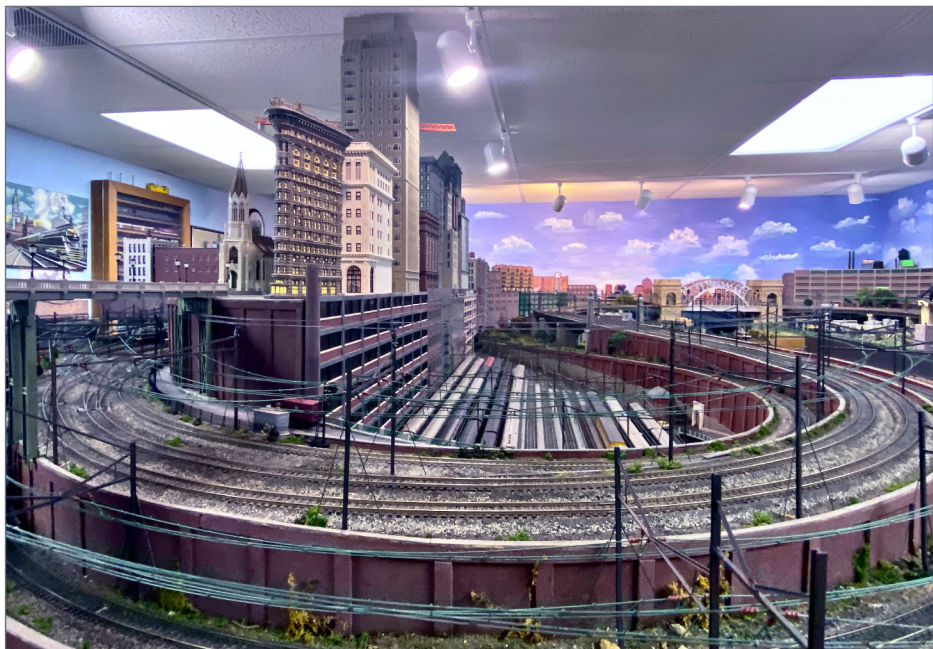


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## MANHATTAN



28. The area around Manhattan Island fills one of the rooms in Bill's basement. The 24-track Sunnyside passenger yard is in the center of the photo, just below the model of the Flatiron Building. Off in the distance to the right is the Hell Gate Bridge. Fred Eison photo.

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29. A five-track passenger yard represents the tracks beneath Penn Station, with the facade of the station on the upper right.

*Fred Eison photo*

For lots more photos of Bill Kachel's Pennsy, see [this month's bonus downloads](#).



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## ROBERT SCHLEICHER



Robert was editor of *Railmodel Journal* for 19 years and, prior to that, editor of *Model Railroading* magazine. He has also authored over a dozen model railroad books including the *Tyco Model Railroad Big Book Of Model Railroad Track Plans* and three books for Lionel. Bob has been a consultant to several manufacturers and helped to kick-start the Railroad Prototype Modelers concept. He is modeling the standard gauge Colorado & Southern in northern Colorado circa 1959 in HO scale. ■



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# Ops for the rest of us

## Part 4



**DOUG MATHESON** SHOWS THE  
MOVEMENT OF INDIVIDUAL CARS ...



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**THE MOVEMENT OF INDIVIDUAL CARS OR CAR FORWARDING IS WHAT** most modelers think of when they discuss operations. Many think of complex schemes for moving cars, mounds of paperwork, and/or sophisticated computer software. With an operations light approach, you can move goods and people on your layout purposefully without the complexity.

## **WHY IS A FREIGHT/PASSENGER CAR FORWARDING MECHANISM NEEDED AT ALL?**

OK, the engineers and conductors know the back story of your railroad, the transportation plan, and the train(s) they will operate. Crews also need specific direction about which cars they should move where. This challenges the crew to accomplish the task while interacting with other operators working other trains.

## **APPROACHES AVAILABLE IN AN OPS LIGHT ENVIRONMENT**

There have been a variety of operating schemes over the past 75 years, the majority of which involve significant paperwork. Modelers argue over the degree to which any given approach

1. Greg Stubbings uses car cards/waybills on his CN Lindsay Division. The paperwork involved is evident looking at the row of boxes – one for each yard track – and the stacks of car cards in them. Achieving a less paper-intensive environment requires vast simplification.

best represents reality. Let's look at some possible approaches for an operations light environment in increasing order of complexity.

## **The crew decides**

About 70 years ago, Whit Towers operated his Alturas & Lone Pine by letting the crews decide whether to drop or lift cars as they went along. Whit set the length of the train, but otherwise crews had the freedom to determine their own workload.

This worked for Whit and his operators, but it wasn't prototypical. Most folks today would assign crews to move only certain cars to specific destinations, leaving the crews only to determine how to do so.

## **Even/odd**

In scales larger than N, reading car numbers is a reasonable task. If a train works a given town or industry, the crew pulls cars from the sidings and replaces them with similar cars from the train as available. Later odd-numbered cars go west, and even numbered cars go east – to staging or the end of the line.

While this instructs the crews which cars to move and where, it is unrealistically arbitrary and lacks purpose.

## **Tabs on the car roofs**

In this scheme, the layout owner puts tabs on the roof/top of each car to denote its destination. The color designates the destination town, while a number sets the siding.

The crews have specific tasks to perform, which makes movement more realistic, and since the destinations make "business sense," they have purpose. Unfortunately, the colored tabs themselves compromise the models' appearance.

## **Like cars for like cars**

In this scheme, a crew swaps like cars as it works an industry. For example, a crew moves a cut of boxcars from staging,



exchanges them for the same number of boxcars at an industry, and sends those to staging. The overall approach recycles cars so the railroad is in the same state as when it started, ready for the next session without the owner having to do anything.

The drawback is that the cars are in dedicated service, cycling between an industry and staging. This detracts from the realism, but then again there are many blocks of railcars in dedicated service in the real world.

## MANUALLY GENERATED SWITCH LISTS: A SMALL STEP BEYOND PAPERLESS

Some modelers, including Mike Hamer and me, have found that manually generated switch lists are simple and adequate for our needs because we can reuse the switch lists. While the approach involves a piece of paper for each train, it meets the goal of purposeful movement of goods or people.

### Passenger service

In the golden era of passenger train travel, each car moved on a schedule/routing unique to the car. Pullman set the routing for sleepers, REA (Railway Express Agency) for head-end express service, and the Postal Service for RPO and mail storage cars. The carrying railroad specified the routing for all other cars.

Handwritten switch lists are the easiest way to emulate this routing. For a modeler interested in the details of passenger operation in the model world, see Chapter 5 of *A Compendium of Operations*. I use manually prepared switch lists (see [2] for an example) over and over again on my Ontario Midland.





## Crown Point switch list/consist

**Train: CN 57 the National (Niagara section)**

Arriving and terminating: 12:05 Track 2 Loco CN 6537

RR	Type	Car	To/From
CN	Baggage	8993	To north Station Track
CN	Coach	5437	To CN 7
CN	Diner		To CN 7
CN	Sleeper	Greenway	To CN 7

2. Switch lists like this one guide the Crown Point depot switch crew in their passenger car switching duties.


## MORE GENERAL USE OF MANUALLY DEVELOPED SWITCH LISTS

Mike Hamer developed manual switch lists for a few trains for operations on his B&M (see Part 2) such that cuts of cars dropped in North Dover eventually make their way back to the same train. Because this circuitous movement of the same few cars became monotonous, Mike eventually developed additional switch lists and combinations so that every one of his 150 cars eventually finds its way into North Dover and back out again.

Mike's switch lists have worked well for about 500 ops sessions over the years. Building switch lists incrementally was not a big chore, and since Mike reuses them from session to session, the railroad is always ready to operate without onerous paperwork.



5a



THE BOSTON AND MAINE RAILWAY COMPANY

SWITCHING ORDERS

Location: N. Dover Date: May 27/58

Car Initials/Number	Track Number and Destination
Assist train # 11 with milk car drop	MEC passenger "The Kennebec"
BFIX	522
Spot car to Creamery	Marshall

3. An example of Mike Hamer's switch list, this one for MEC #11, The Kennebec.

## MORE COMPLEX SCHEMES

The schemes mentioned so far require minimal paperwork, though they sacrifice some realism. Some modelers may want a more realistic approach.

Car cards, waybills or computer-generated switch lists are two options to add realism. although they may add complication and undesirable "side effects."

For some layouts, such as Bruce Chandler's Jackson and Burke we saw earlier, a fleet of only about 30 cars make a simplified computer generated switch list easy to manage. Most modelers

have larger and more complex empires, and the complication grows with size. We will discuss these approaches more in Part 5.

## HOW MUCH SWITCHING CAN AN OPERATOR PERFORM IN AN OPS SESSION?

Many modelers are optimistic in their estimate of how much switching one operator can handle in a given session. There is a balance between having operators standing around for lack of work and having them feel rushed to complete assignments.

I have found that an experienced operator, working steadily, can make about 20 moves (lifts plus drops) in an hour. Fifteen moves per hour per operator, or 40 moves in a three-hour session, would be a good starting point for planning.

## HOW MUCH ROLLING STOCK IS NEEDED?

Many modelers have closets full of rolling stock and display cabinets full of locomotives. Avoid the temptation to jam the layouts with cars, and use sidings for storage. A good rule of thumb is to plan for enough cars to fill about 1/3 of available yard and siding space.

Over time, you might decide that more cars would improve operating sessions. I recommend limiting the number of freight cars to less than half of available track space.

## CONCLUSION

A modeler can usually portray an operating plan as a single list of trains that run in a sequence. A short story line for each train enhances the portrayal and informs the operator more fully of his role, and a car-forwarding mechanism sets out the specific tasks to accomplish. With these, you can take on the challenging task of bringing your railroad to life in the general manner you envisioned.



## DOUG MATHESON



Doug authored a chapter in the OpSIG (Operations Special Interest Group) publication, *A Compendium of Model Railroad Operations*.

Doug has been participating in ops sessions for decades. He has also presented NMRA clinics on ops, organized ops sessions for a number of owners of large model railroads, and served on a model railroad as a dispatcher using Timetable and Train Orders, and on another layout using the Occupancy Control System (Canada's version of Track Warrants). These all fit into the more heavyweight category of prototype-based operations.

At the same time, Doug has built and operates a very modest HO scale layout. He has also long modeled in Fn3 in the garden, including running live steam.

Doug thanks Bruce Chandler for his help in allowing his Jackson and Burke RR to be used as an example and inspiration for this article. N scale modeler Mike Dawson provided insightful comments on operations in a scale where reporting marks are difficult to read. A big thanks also to a number of Doug's fellow members of the NMRA (Niagara Frontier – St Lawrence Division) who offered many suggestions and edits along the way. These include Alex Binkley, Mike Hamer, Chris Lyon, and Peter Nesbitt. In particular, Mike Hamer also allowed his Boston and Maine RR to serve as an example.

Besides operations, Doug's other railroading interests include the history of passenger travel by rail, and the historical development of signaling systems.

Doug retired from Canada's federal public service and lives in a rural area south of Ottawa, Ontario. ■



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# What about layout crew seniority?



Model Railroad Hobbyist | March 2021



## JOE FUGATE PROPOSES A WAY TO TRACK YOUR OPERATING CREW SENIORITY ...

**OVER THE YEARS ON MY SISKIYOU LINE 1**, I explored a few “rules enhancements” to spice up an op session. One such system I considered I called my Seniority Rules system.

I reasoned that real railroaders build up seniority on the job so why not add something like that to my layout op sessions? And maybe that would add an incentive for folks to attend more op sessions and to be more aggressive in seeking op session tasks.

I never actually implemented this system, but I present it here as a proposal for others to refine and experiment with.

This system defines the role of each participant in a Siskiyou Line operating session. Seniority points get assigned or deducted based on completed assignments and rule violations. Keep in mind we’re doing this all in fun!



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**1. Just having ops crew members standing around doesn't make for the most fun operating session. On my Siskiyou Line 1 layout shown here, I considered ways to "up the ante" during an operating session to encourage the crew to be more aggressive in pursuing op session tasks. Crew seniority tracking is one system I considered.**

## SENIORITY POINTS

I outlined five seniority point levels for job assignments:

- 000-099 — Green / Trainee
- 100-199 — Switchman / Rookie engineer
- 200-299 — Seasoned engineer
- 300-399 — Conductor
- 400 or more — Foreman / Mentor

These point ranges define your "experience level" and "job rating" for the purposes of what layout assignments you can take on. You gain points by successfully completing various operating session tasks successfully. If you make mistakes, you can still get points, but they may be reduced by demerit points.

## JOB ASSIGNMENTS

Job assignments can be chosen based on seniority level points accumulated. Operators can take any job they have the seniority points to hold.

Crew members with a higher seniority have the first choice of an assignment when competing for the same assignment.

000-099 — Yard switchman (assist the Yardmaster).

100-199 — Engineer on through trains or in yard, crew on local trains.

200-299 — Conductor on through trains, engineer on local trains.

300-399 — Engineer/conductor on all trains, helper engineer.

400 or more Yardmaster, dispatcher, crew caller, or choice of assignment. Can also “qualify” Green crew members for a through train crew assignment.



2. I designed my Seniority rules to help crew members engage more and to remind everyone that not being attentive on a real railroad can lead to serious consequences. Hopefully this would add a bit more realism to the assignments, yet remain fun.



Note someone with the Foreman level (400+) can “temporarily promote” a crew member for any assignment up to 100 points above their level if the session is short-handed.

However, any demerits the “temporarily promoted” crew member gets will be doubled. So pay attention, real trains can be dangerous if you don’t stay attentive!

Alternatively, through trains can have just an engineer/conductor (300-399), with the extra crew position left unfilled if no one is available.

Local trains must always have two crew members or the train is annulled this session.

### HOW TO GET SENIORITY POINTS

Seniority points get awarded for the successful completion of these job assignments:

- +100 — Complete first green crew assignment successfully.
- +75 — Complete “temporary promotion” crew assignment successfully.
- +50 — Each yard assignment completed successfully.
- +50 — Each through train assignment completed successfully.
- +50 — Each local train assignment completed successfully.







3. Had I implemented my Seniority Rules, it would have been interesting to see if it would have added an incentive for guest operators to come back and earn more seniority points. There's nothing like some "gamification" to add to the challenge if your layout ops sessions seem to be getting too routine!

## DEMERITS

Here's where things started to get dicey. The main reason I never implemented my seniority points system is because I was concerned guest operators would be put off by the possibility of getting demerits.

It's hard enough to get folks to attend an op session, but to be called on the carpet for a boo-boo could be very off-putting. If I could make it clear demerits are all in fun, then it might work.

I recently realized I could have made it so only those with 100 or above in seniority points get demerits – in other words, green crew / trainees are expected to make mistakes!



Demerits get deducted for inattentive behavior and rules violations. The person or persons serving the named role(s) in brackets get the demerits.

Remember this is all in fun and intended to just remind us real railroading can be a risky business if you're not careful!

Demerits for various violations include:

- 10 — Delay another train by more than 30 fast minutes (5 actual minutes) [conductor]
- 10 — Negligent derailment [crew] or entering turnout with points thrown against you [engineer]
- 10 — Speed violation [engineer]
- 50 — Failure to heed dispatcher or yardmaster orders [engineer or conductor]
- 50 — Major derailment due to negligence (not due to equipment/track failure) [conductor, engineer, crew]
- 100 — Major accident that in real life would likely result in a "fatality" (judgment of the injured party) [conductor, engineer, crew]

## ADDITIONAL NOTES

A yard switchman assists the yardmaster by throwing turnouts.

Conductor (300+) gets choice of assignment: Can be engineer/conductor or crew/conductor.

Through trains with Engineer (200-299) ordinarily must also have a crew/conductor (300-399).

Green crew members (0-99) on through trains can only act as brakeman for the train and throw turnouts, they cannot be an engineer unless the train is also staffed by a Foreman level member (400+).

4. At the end of the day, I believe an op session must first be about having a good time. If the seniority system can be set up such that it's all in good fun, then that's what really matters.



## FINAL THOUGHTS

As I mentioned, I never actually implemented this seniority system, however, I may explore using it on Siskiyou Line 2 with the proviso that green / trainee crew members don't get demerits unless they first agree that it's okay and all in fun. If you'd like to try it out or use this as a starting point for your own seniority system, please do so.

Tell us about how it goes!

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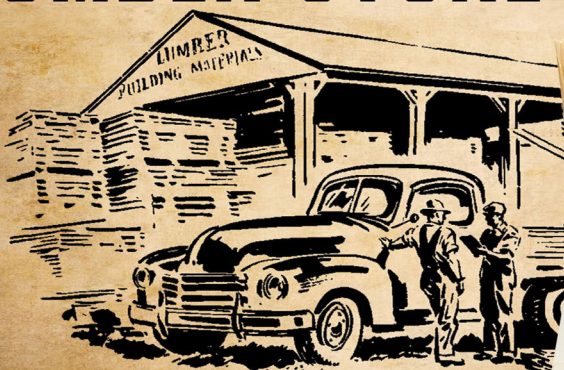
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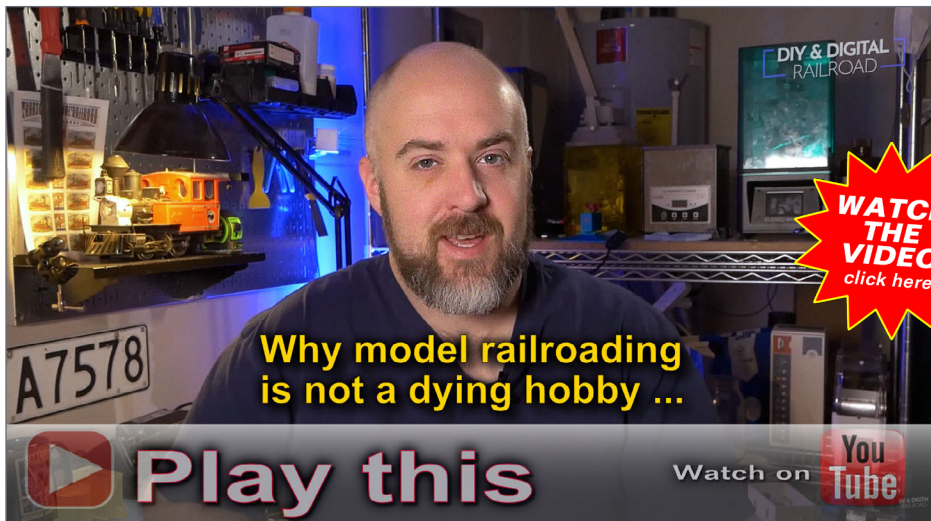
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# SAVVY MODELER *Online*



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Model Railroad Hobbyist | March 2021



Why model railroading  
is not a dying hobby ...

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## Why the hobby is not dying

In a departure this month from a cool how-to video, we're doing a bit of hobby philosophy. YouTube modeler *DIY and Digital Railroad* lays out why the hobby of model railroading is not dying, using some very well-reasoned points.

Give this video a watch and see if he brings up some things you may not have considered. We agree with his points and appreciate DIY Jimmy's upbeat outlook!



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- Joe quick tips  
- Attendee Q/A

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# MARCH NEWS

column



Model Railroad Hobbyist | March 2021

**RICHARD BALE AND JEFF SHULTZ**  
REPORT THE LATEST HOBBY  
INDUSTRY NEWS ...



## IN MEMORIUM

**Charles F. Ro, Sr. 1932-2020**



Charles Ro, founder of Charles Ro Supply Co. and USA Trains, died December 1, 2020. He was 88 years old. Beginning in 1972, Mr. Ro turned his train collecting hobby into a part-time retail business that steadily expanded over the years to eventually become recognized as the world's largest Lionel Train dealer. The company currently occupies a 50,000 square foot building in Malden, MA. In 1987 Ro established USA Trains, a line of G scale models based on American prototypes. Charles Ro, Sr., served as a U. S. Marine during the Korean War.

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## INDUSTRY NEWS

**Future of MTH HO and S scale tooling updated**

After **ScaleTrains.com** announced it had purchased all of MTH's HO and S scale tooling, the Tennessee-based company

**THE LATEST MODEL RAILROAD PRODUCTS, NEWS & EVENTS**



was flooded with inquiries about when new releases would be forthcoming and how they would or should differ from the original MTH products. In response, Shane Wilson, president of ScaleTrains.com, issued the following statement:

“We are designing and tooling new motor mounts so the (MTH) locomotives can use our motor. We’re also designing a new main board so we can utilize ESU-LokSound DCC & sound. We have no plans to extensively rework the external details of current MTH HO and S models. We’ve received feedback about potential dimensional and detail issues with specific products and will take the information under advisement. If the issue can be fixed with a limited amount of time and money, we may make the investment. If the issue cannot be resolved easily, we may continue with the model as is or retire it.

Our team was a part of the GP7/9 and ES44 tooling acquisitions at our previous (Athearn) employer and we know how much time and money it cost to bring these models into the Genesis line. Starting from scratch would have been less time consuming and less expensive.

If there is a current model in the MTH HO line-up that does not meet our Rivet Counter or Museum Quality standard and we believe there is a market in the Rivet Counter or Museum Quality lines, we’ll start the project from square one.

MTH has designed and engineered several steam era locomotives, freight cars, and passenger cars that are yet to be tooled. Over the next several years, we’ll bring many of these projects to market. Since they are designed and not tooled, we will ensure they meet Rivet Counter or Museum Quality specifications. Thank you. SW.”

---

## NEW PRODUCTS FOR ALL SCALES

**Bachmann’s** new 2021 catalog is now available on line. The 320 page catalog covers Spectrum and standard-line locomotives, rolling stock, scenery, and accessories in HO, N,



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On30, and large scale including Williams by Bachmann 0 Gauge line. The catalog may be viewed at [resources.bachmantrains.com/bachmann2021/html5/index.html](http://resources.bachmantrains.com/bachmann2021/html5/index.html).

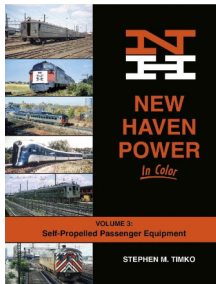
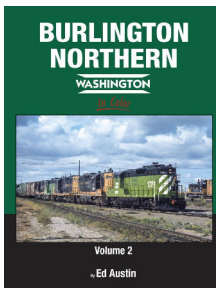
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**Digitrax** is now shipping its new compact UT6 utility throttle that is compatible with LocoNet Systems. The UT6 features a 1.5" color LCD display screen, 2- or 4-digit locomotive decoder access, over 9,000 loco addresses, 29 functions, infrared operation with UR90/91/92, and over 2,000 turnout decoder addresses.

Also available now is Digitrax UT6D duplex radio utility throttle with all of the same features as the UT6 plus duplex wireless function with UR93/92 and duplex scanner and duplex settings editor. For additional information contact a dealer or visit [www.digitrax.com](http://www.digitrax.com).

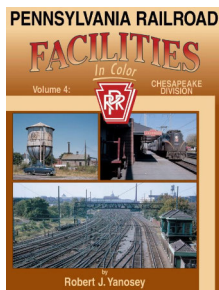
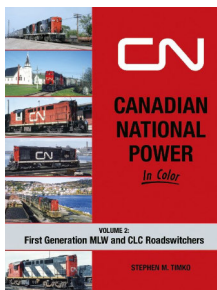
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New publications from **Morning Sun** include Volume 2 of *Burlington Northern in Washington*. Author Ed Austin covers BN in Washington State as the conglomerate juggles a rainbow of colorful diesels of the Great Northern, Northern

Pacific, Chicago, Burlington & Quincy; and Spokane, Portland & Seattle.

Also new is Volume 3 of *New Haven Power in Color* by Stephen Timko. This volume documents the New Haven's self-propelled passenger equipment, electric and diesel, as well as Mack railbus models, RDCs, the diverse fleet of electric MU equipment, and the DOT Turbo era are all featured.

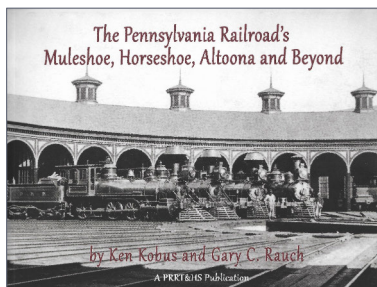


Additional new books from Morning Sun include *Canadian National Power* and *Volume 4 of Pennsylvania Railroad Facilities*. The CN book reviews the first generation of MLW and CLC road switcher fleet including CLC H12-64, H16-44 and the

lone H24-66, as well as MLW models RSC-13, -14, and -24, RS-3, -10, and -18. The TEMPO RS-18 is given special attention.

The PRR's Chesapeake Division included the southern end of the road's heavy-duty main line as well as the rural character (and float bridges) on the popular Delmarva branch. Volume 4 documents all of this as well as facilities and trains of Pennsy's Wilmington-Washington main line. For additional information contact a dealer or visit [www.morningsunbooks.com](http://www.morningsunbooks.com).

The **New York Central System Historical Society** has announced the creation of a second-generation archive system as a resource for model railroaders and railroad historians. Containing over 58,000 images, the archive will serve as the central resource for the society's collection of photos, maps, drawings, and track plans. The new archive is available at [nychs.omeka.net](http://nychs.omeka.net), and additional information about the archive can be requested from [archive@nycshs.org](mailto:archive@nycshs.org).



**The Pennsylvania Railroad Technical & Historical Society** has published *The Pennsylvania's Muleshoe, Horseshoe, Altoona and Beyond*, by Ken Kobus and Gary C. Rauch. Covering a period beginning in the 1850s through the 1970s, the book explores the development of

the Pennsylvania Railroad along the east slope of the Allegheny Front. Included area coverage of the Alternate Corridor west from Petersburg to Gallitzin, Cresson and the Pittsburgh Division main line including Horseshoe Curve, and the Altoona Yard complex. Presented in landscape format, the softcover book includes over 200 illustrations, some in color, within its 148 pages. It is available at the PRRT&HS website at [www.prrths.org](http://www.prrths.org).

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## LARGE SCALE PRODUCT NEWS



**Bachmann** has released four versions of a large scale 4-6-0 Ten-Wheeler steam locomotive with metal gears. Additional features include an operating headlight, smoke unit, metal side rods, all metal handrails, and a new tender.



Locomotives in this release include DCC and sound-ready versions with factory installed speakers and a nonproprietary plug-and-play circuit board to accommodate aftermarket control systems including conventional DC power, NMRA/NEM DCC, and/or RC operation.



Decorating schemes on the 4-6-0 include two for Denver & Rio Grande Western (Flying Grande and

Yellow Bumble Bee), black but unlettered, and a Christmas scheme.



For additional information contact a dealer or visit [www.bachmanntrains.com](http://www.bachmanntrains.com).

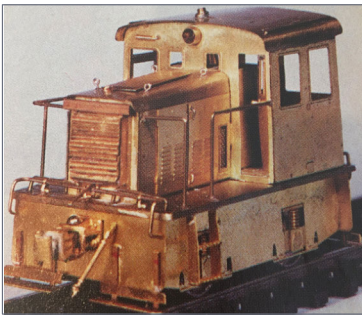
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## MULTIPLE SCALE PRODUCT NEWS



**Adirondack Car Foundry** is taking reservations on the Thousand Island Railway 500 in HO, S, O, and On30 scales. A one-of-a-kind centercab diesel locomotive, the 500 was rebuilt out of an electric locomotive by the CN-owned Oshawa Railway.

Classed as a 35-ton locomotive, it was powered by twin 125hp Waukesha gas engines, and was repowered in 1947 with twin 142hp Cummins diesel engines. It is currently on display in Gananoque, Ontario, Canada, where it had run for most of its life. The model will be equipped with DCC and sound.



Also available for reservation is a brass GE 23-tonner in S, O, and On30 scales. The model will feature etched and investment cast brass construction, including DCC, sound, and a proprietary drive. For more information visit [adirondackcarfoundry.square.site](http://adirondackcarfoundry.square.site).



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## O SCALE PRODUCT NEWS

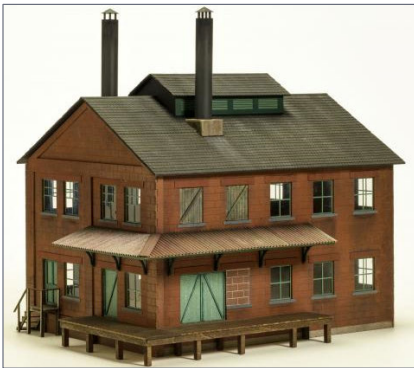


3rd Rail **Sunset Models** is selling an O scale Southern Pacific 0-6-0 class S-12 switcher. The hand-crafted brass model is a highly accurate replica of a

prototype locomotive SP built in its Sacramento Shops in the 1920s. For complete details contact a dealer or visit

[www.3rdrail.com](http://www.3rdrail.com).

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**Brennan's Model Railroading** has released a laser-cut kit for Richmond Packing Co. This is the third in a series of O scale structures Denis Brennan has issued in his Frank Ellison Tribute series. The kit is composed of laser-cut tempered hardboard walls, basswood freight dock, doors, windows, and stairs; and peel-and-stick

shingles. The assembled building has a footprint of 10.125" x 12.5" including the wrap around loading dock. Illustrated assembly instructions, including painting and weathering suggestions, are included. For additional information visit

[brennansmodelrr.com](http://brennansmodelrr.com).

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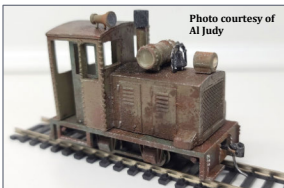
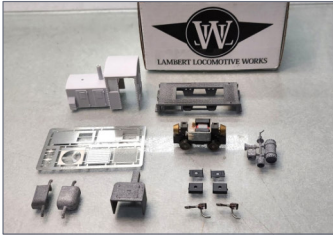


Photo courtesy of Al Judy

**Lambert Locomotive Works** has released Type W1, a new kit for an On30 Critter. Major components of the limited-edition kit include a resin cast body, a sheet of etched metal parts, Kadee couplers, a 4-wheel power chassis, and

nylon printed frame plate, fuel tanks, cab doghouse, and parts sprue.



Downloadable instructions are included with the purchase. For additional details including availability visit [lambertlocomotiveworks.com/type-w1-critter](http://lambertlocomotiveworks.com/type-w1-critter).

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## S SCALE PRODUCT NEWS



**Motrak Models** has released the Weeks Mills Freight House kit in S scale. Replicating a freight house on the Wiscasset, Waterville & Farmington Railroad, the kit's dimensions are 8.5" x 4.5" and it is constructed of laser-cut wood, windows, shake shingles, and

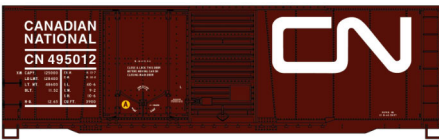
subfloor. Also included are barrels and laser-cut crates. For more information visit [motrakmodelsusa.com](http://motrakmodelsusa.com).

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## HO SCALE PRODUCT NEWS



New HO scale kits from **Accurail** include this Chicago & North Western ACF twin-bay 2780 cu. ft. CenterFlow covered hopper car.



Also just released is a kit for a Canadian National 40' steel boxcar with a combination of a plug and sliding doors. The HO

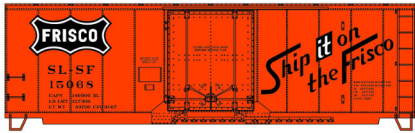


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scale model is based on a prototype built in November 1952.



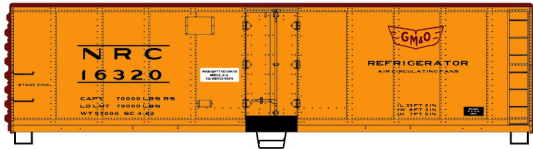
entered service in 1967.

Accurail's kit for this HO scale St. Louis-San Francisco 40' insulated steel boxcar represents a real Frisco car that



This Chicago Great Western 36' double-sheathed wood boxcar was built with a steel roof, wood ends, a fishbelly underframe, and

National sliding doors. The decorating scheme features a CGW Corn Belt Route herald.



reefer 4 ft hinged swing doors.

Quebec Central built 1913 rebuilt 1951.



Grand Trunk, built 1917.

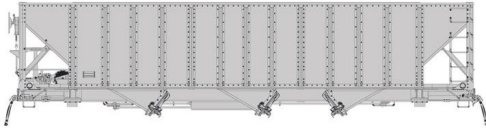


Pacific Great Eastern built 1914 rebuilt in 1941. A 36' Fowler Wood Boxcar 3-car set features the above three boxcars. For additional



information contact a dealer or visit [www accurail.com](http://www accurail.com).





**Arrowhead Models** is selling undecorated kits for its highly regarded Committee Design triple-bay hopper cars.

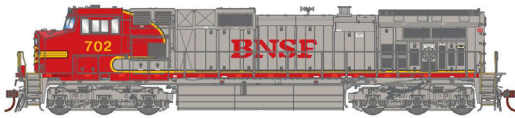
The prototype emerged from a committee formed in the late 1950s by Pennsylvania Railroad, Chesapeake & Ohio, and Norfolk & Western. Arrowhead's HO scale model accurately replicates the prototype design of a 70-ton car with 13 posts. The interior length of the car is 39' 19". Assembling this challenging kit is eased by the 35-page illustrated instructions that accompany it. For additional information visit [www.arrowheadmodels.com](http://www.arrowheadmodels.com).

---



**Athearn** has upgraded the tooling of its Dash 9-44CW diesel locomotive to Genesis

2.0 and will release its first run in March 2022. Road names for the Dash 9 will include ATSF units as delivered in 1994 with Santa Fe's unique pilot plow and trucks.



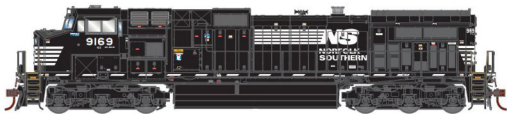
BNSF Dash 9s in War Bonnet paint represent some of the earliest examples of BNSF

utilizing Santa Fe's legendary livery. Note the variations in lettering and the cigar band nose band.



Two road numbers will be available for Canadian National Dash 9s featuring teardrop cab windows, and

Canadian ribbed anticlimbers.



Athearn's Norfolk Southern version of the Dash 9s represent units



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acquired between 1995 and 2005, some of which are still in service.



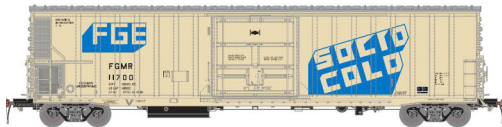
Southern Pacific Dash 9-44CW locomotives will be available in their as delivered 1993-94 factory-fresh paint scheme.

Athearn has included Dash 9s decorated for Australia's FMG-Fortescue Metals Group in the March 2022 production run.



Genesis2 features on all Dash9-44CW in this run include illuminated number boards and

ground lights. The models will be available for DCC operation with an onboard SoundTraxx Tsunami2 sound decoder. DC models will feature Quick Plug technology with a 21-pin NEM connector for installation of an aftermarket DCC decoder.



A new run of Genesis FGE 57' mechanical reefers is included in Athearn's March 2022 production schedule.

The HO scale models will be available with or without a DCC driven sound decoder.

Road names will include three Burlington Northern cars including two in prime for grime and one in factory fresh as delivered paint. Additional road names include Fruit Growers Express, Frisco, BNSF with Western Fruit Express logo, Santa Fe leasing, three SFLC cars in Solid Cold schemes, and two Union Pacific/ARMN reefers.



Athearn has included 85' TOFC flat cars in its March 2022 release. The HO scale models will have trailer hitches, wire grab

irons, and swing-mount coupler boxes. These long cars require a minimum track radius of 22". Road names will be Santa Fe, Denver & Rio Grande Western, Trailer Train, Rock Island, Pacific Fruit Express, and Soo Line.



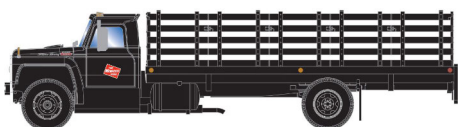
Fruehauf 45' Z-van trailers decorated for Santa Fe, Availco, Southern Pacific, Milwaukee Road, Denver & Rio Grande Western, Boston

& Maine, and Conrail are scheduled for release next March. Features on Athearn's 1:87 scale trailers include rubber tires and individual mud flaps. Variables per the practice of the prototype name include two or four door-rods and wheeled or shoe-style landing gear.



Athearn will offer its 40' modernized boxcar singly and in 3-packs with different road numbers. The models are scheduled for release next

March. Road names will be Southern Pacific, Rock Island, North Stratford Railroad, Louisville Nashville, Missouri-Kansas-Texas, Penn Central, and Gulf, Mobile & Ohio.



A Ford F-850 truck with a stake body is included in Athearn's March 2022 production schedule.

Decorating schemes for the 1:87 scale vehicle will be Union Pacific, Denver & Rio Grande Western, Milwaukee Road, Baltimore & Ohio, Chicago & North Western, Canadian National, and Conrail. Features will include rubber tires and clear window glazing.



New HO scale models coming next March from the Roundhouse Division of



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Athearn include an ACF 5250 cu. ft. hopper car. Road names will be ADM Milling, Santa Fe, Seaboard Coast Line, Kodak, Plexiglas, Union Pacific, and Western Pacific.

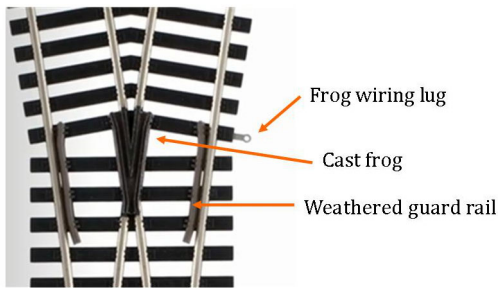


A Roundhouse 40' steel gondola is also in the March 2022 release.

Decorating schemes will

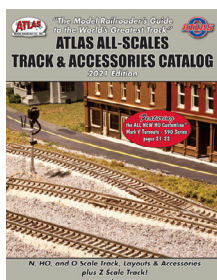
be Burlington Northern, Seaboard Coast Line, Southern Pacific, Southern Railway, Texas & Northern, Norfolk Western. Both Roundhouse models will come with appropriate trucks with 33" machined metal wheelsets. For additional information on Athearn or Roundhouse products contact a dealer or visit [www.athearn.com](http://www.athearn.com).

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**Atlas** has announced important upgrade to its line of HO scale code 100 turnouts. The new series, identified as the Mark V Customline, incorporates several important improvements over the

current Mark IV series that was introduced some 20 years ago. The new Mark V design features tighter tolerances throughout the turnout to match applicable NMRA Standards and Recommended Practices. The guard rails are cast as a separate part which allows them to be molded in a color that represents weathered rail. To make it easier to power the cast metal frog, a small wiring lug is positioned at the end of one of the ties. Atlas' new Customline Mark V series includes a wye turnout and number 4 and number 6 right- and left-hand turnouts. A video describing the new turnouts is available at [www.youtube.com/watch?v=w3BfS6kjHCQ&mc\\_cid=ffa5fb418f&mc\\_eid=6bff0ec9ce](https://www.youtube.com/watch?v=w3BfS6kjHCQ&mc_cid=ffa5fb418f&mc_eid=6bff0ec9ce).



Atlas' complete line of N, HO, O, & Z scale track and accessories, including the new Mark V turnouts, are detailed in the 2021 edition of the Atlas All Scales Track Catalog. This 144-page catalog will be available in March at Atlas authorized dealers or direct from Atlas. For more information visit [www.atlasrr.com](http://www.atlasrr.com).

---



The newest HO scale steam locomotive from **Bachmann** is a classic 0-6-0 switcher. The model is based on a

design established by the United States Railroad Administration during World War I. Locomotives with a standard USRA tender are available for New York Central, Boston & Maine, and Western Pacific.



Road names for locomotives with a Vanderbilt tender include Great Northern and Union Pacific.



Included in this release is a Santa Fe locomotive with a slope back tender. All versions feature an operating headlight and smoke unit.



Bachmann has added several new road names to its broad selection of HO scale cabooses.



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A steel caboose with offset cupola is available decorated for Chicago, Burlington & Quincy; Wabash, and Grand Trunk.



New road names for Bachmann's HO scale bay-window caboose include Santa Fe, Delaware & Hudson, and Louisville & Nashville.



A Northeast-style steel caboose with a centered cupola is available now, decorated for Penn Central, Conrail, and Western Maryland.



New road names for Bachmann's 36' caboose with a wide-vision cupola include Denver & Rio Grande Western, Chessie, and Erie Lackawanna.



All of the models mentioned in this report feature Celcon trucks with blackened metal wheels and non-magnetic blackened brass axles.

Completing Bachmann's wide assortment of HO scale cabooses is a classic 4-wheel wood-sheathed bobber type decorated for



Lehigh Valley, Southern Railway, and Denver & Rio Grande Western.



For more information contact a dealer or visit [www.bachmanntrains.com](http://www.bachmanntrains.com).



R. Bale

## ALCO RS-3 ROAD SWITCHER

The American Locomotive Company introduced the 1,600hp RS-3 road switcher locomotive in May 1950. Designed specifically to compete with EMD's GP7, the RS-3 would become the most commonly seen Alco locomotive across the country. Schenectady-based Alco and its Canadian counterpart, Montreal Locomotive Works, built 1363 of these versatile locomotives before production ended in late 1956. Spotting features of the familiar and reliable RS-3 included pronounced rounding at the corners on the cab and long, low hoods, giving the locomotive a more streamlined appearance than its RS-1 predecessor. The radiator-fan housing was also rounded. The short hood could accommodate a steam generator. Because of this option, and the RS-3's good looks, some railroads elected to employ theirs in passenger/commuter service.



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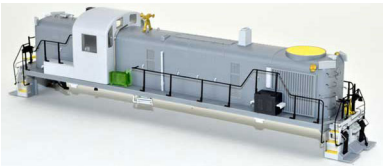
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**Bowser** expects to begin production of an all-new Alco RS-3 Phase 3 road switcher next month. Availability of finished models will be mid-summer. The HO scale model is the

culmination of a project that began some seven years ago when Bowser's development team measured a prototype at the Rochester & Genesee Valley Railroad Museum. Since then, several other prototypes with varying degrees of road name modification have been measured. To model the variations accurately, Bowser has prepared tooling for 22 versions of the Phase 3 RS-3. A video showing the tooling and molding operation for one style of cab is available at [bowser-trains.com/docs/RS/BOWSER%20-%20RS3%20Molding%20Video.mp4](http://bowser-trains.com/docs/RS/BOWSER%20-%20RS3%20Molding%20Video.mp4).



In addition to all the road name and road number variables, features common to all versions of the ready-to-run HO scale model include individual air hoses,

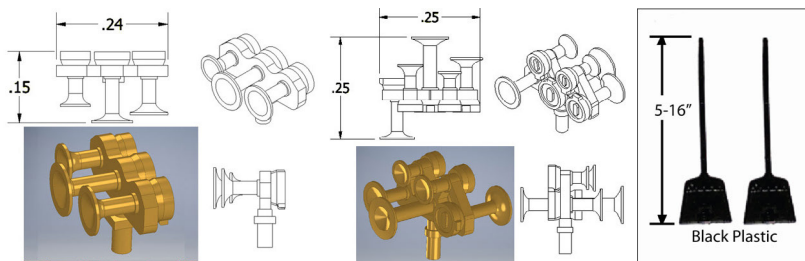
windshield wipers, individual grab irons, coupler lift bars, operating headlight, and window glass.

Road names on the initial release will be Boston & Maine, Central Vermont, Delaware & Hudson, Erie Lackawanna, Grand Trunk, Green Bay & Western, Louisville & Nashville, Milwaukee Road, Nickel Plate Road, Northern Pacific, Norfolk & Western, Pennsylvania, Spokane, Portland & Seattle; and Western Maryland.



DC versions of the model will have a 21-pin plug for installation of an aftermarket decoder. DCC models will have a factory installed LokSound Select decoder.





Bowser has also announced several new items in its Cal Scale details line. New cast brass Nathan Air Horns are available, including the M3H, M3, M3HR2, M3HR4, M3R1, M3R2, M5H, M5R2, M5R24, and M5R4. Also available are sweep brooms, available in black plastic. For additional information contact a dealer or visit [www.bowser-trains.com](http://www.bowser-trains.com).



R. Bale

## 2-8-0 CONSOLIDATION

Baldwin Locomotive Works built the first 2-8-0 steam locomotive in 1866. Dubbed Consolidation, its eight drivers offered more adhesion than previous six-coupled engines, and the two-wheel pilot truck provided the stability that was lacking in 0-8-0s locomotive types then in use for heavy freight. From the 1880s to about 1910 the 2-8-0 Consolidation was the locomotive of choice for freight service. Although the majority of 2-8-0s became branch line engines after the development of freight locomotives with trailing trucks, builders continued to produce 2-8-0s through the 1920s. In total, about 21,000 Consolidations were built, more than any other wheel arrangement.



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**Broadway Limited** has completed another release of its popular 2-8-0 Consolidation steam locomotive. This production run features Paragon3 Sound and

Operation System with Rolling Thunder Sound in both DC and DCC environments.



The HO scale locomotive is equipped with traction tires and can negotiate a minimum track radius of 18". The power chassis and superstructure of the locomotive are diecast. The tender is composed of an ABS body with a diecast underframe.



Road names are Santa Fe, Chicago & North Western, Duluth, Missabe & Iron Range; Denver & Rio Grande Western, New York, Ontario & Western; Chicago,

Burlington & Quincy; Chesapeake & Ohio, Great Northern, Maine Central, Southern Pacific, Pere Marquette, Southern Railway, Union Pacific, Western Maryland, and Western Pacific. A painted but unlettered version is also available.



For additional information contact a dealer or visit [www.broadway-limited.com](http://www.broadway-limited.com).



**Fast Tracks** has introduced a new selection of kits that simplify building precision track crossings. Named Diamond Line, the initial kit is for an HO scale 90-degree crossing. Single and double crossings in other degrees in both HO and N scale are under development.

The kits include nickel silver castings which are pressed and glued in place into pre-cut precision laser-cut ties. Pockets in the casting allow for matching rail to be simply slid into position for soldering in place. Track gauging and electrical gapping are automatic. Each kit includes individual frog and guard rail castings, matching laser-cut ties, Copperhead PC board ties to anchor the rail in place, and sufficient rail to build one crossing. Additional items in each kit include 320 and 600 grit sanding blocks and a steel wire brush to polish the raw castings. For additional information visit [www.handlaidtrack.com/whats-new](http://www.handlaidtrack.com/whats-new).

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R. Bale

## PENNSYLVANIA RAILROAD WELL CAR

The class F25 flat car was the basis of the Pennsylvania Railroad's well-car fleet. Two massive, riveted cars were built in PRR's Altoona Car Shops in 1916, with 25 more being completed the following year. The 70-ton load limit of the original F25 cars was later upgraded to 95-tons. Due to their limited use in specialized service, the original 27 F25 well-flat cars lasted into the early Penn Central period of 1968.



**Funaro & Camerlengo** is selling a craftsman style resin kit for a prototypically accurate HO scale model of a

Pennsylvania Railroad F25 well car. The kit includes a one-piece cast resin body, detail components, heavy duty PRR Crown truck frames, decals, and assembly instructions. Wheelsets and couplers are not included. For additional information visit [www.fandckits.com](http://www.fandckits.com).

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**InterMountain** plans to release its latest HO scale versions of GE ET44 Tier 4 locomotives this month.

Six new road numbers will

be available for BNSF, Canadian National, and Union Pacific.

Lighting on the HO scale ready-to-run models includes front and rear headlights, front and rear ditch lights, number boards, and front and rear walkway lights. The CN locomotive will have front and rear red DPU lights. Additional features



include accurate GE style traction motor detail on the 3rd and 4th axles, spinning bearing caps on all six axles, see-through

etched metal grilles on the radiator cab roof, dynamic brake area, and body; etched metal walkway steps, and PTC antenna arrays on cab roof.



Sound locomotives will be equipped with ESU® LokSound® 5 DCC sound decoders and dual sugar-cube speakers. Non-sound

locomotives will have an ESU® LokPilot® V4.0 non-sound decoder. For additional information contact a dealer or visit [www.intermountain-railway.com](http://www.intermountain-railway.com).

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The newest HO scale freight car model from **Kadee** is a 40' PS-1 boxcar decorated for SSW - St. Louis Southwestern Railway. The

HO scale ready-to-run model replicates a prototype car built in 1954 with 8' Youngstown sliding doors. The roof and ends are painted black and the right side of the car features a herald for the Cotton Belt Route and a Blue Streak Fast Freight slogan. Kadee models come with Kadee metal couplers and self-centering trucks. For more information contact a dealer or visit [www.kadee.com](http://www.kadee.com).

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**KatoUSA** has added a Chicago & North Western cab-coach to its selection of Pullman four-window bi-level commuter cars. Previous releases included cars decorated for Amtrak Phase III,



Chicago RTA, Rock Island, and Chicago Metra.



A second Chicago Metra Cab-Coach has been added to Kato's line up of bi-level cars as well as coaches decorated for Metra and C&NW.



Kato's HO scale cab-coaches are equipped with switchable headlights. An interior lighting kit is available as a separate

purchase. The HO scale models come with Kato's Kinematic Knuckle Couplers. A video is available ([www.youtube.com/watch?v=So4TYXN5oRk](http://www.youtube.com/watch?v=So4TYXN5oRk)) with instructions on converting the cars to Kadee couplers. For additional information contact a dealer or visit [www.katousa.com](http://www.katousa.com).

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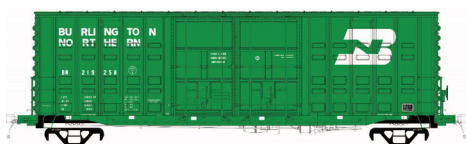




R. Bale

## ACF 70-TON WAFFLE BOXCARS

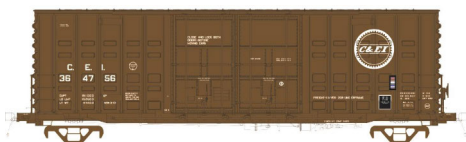
The American Car & Foundry waffle side boxcar evolved in 1973-74 from a basic 70-ton exterior post boxcar introduced by ACF in 1971. The exterior protrusions, or waffles, provided room inside the car to house specialty anchor fixtures needed to secure rolls of paperboard used in manufacturing cardboard boxes. The hi-cube height of the car was needed to accommodate various sizes of paper rolls stacked either one, two, or three high, depending on roll dimensions and customer requirements. The extended clearance for these cars pre-dated the Plate F introduction so they were stenciled with 'Exceeds Plate C'.



**Moloco** is taking reservations for an HO scale 50' ACF Hi-Cube waffle boxcar with double plug doors. Availability of the prototypically accurate model is planned for the third quarter of 2021.



Reservations for the ready-to-run model received by the deadline of March 20, 2021 will be assured of receiving delivery from this limited run.



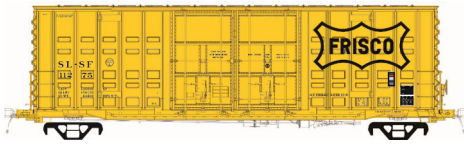
Road names include Burlington Northern, Texas, Oklahoma & Eastern; Chicago & Eastern Illinois, and Frisco. An undecorated kit will also be available.



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For additional information visit [www.molocotrains.com](http://www.molocotrains.com).



R. Bale

## BARREL ORE CARS

Beginning in 1967, National Steel Car built a series of covered pellet ore cars for Canadian National and Ontario Northland. The cars were designed specifically to deliver iron ore pellets from mines owned by

Dominion Foundries and Steel Co. (Dofasco) in Northern Ontario to their mill facility in Hamilton. The closed design of the cylinder-shaped hopper cars was to keep the processed iron-ore pellets from freezing or becoming damp with excess moisture. The barrel cars had a device that resembled a tire on a shaft extending upwards from each of the loading hatches. As the cars moved through the loading area, a pair of elevated ramps, called "Scrolls," engaged the tires forcing the hatches open. It took about 60 seconds to fill each car. The initial design was for 35' cars which proved to cause excess wear on rails of the same length. Production of an improved 42' car began in 1973. It was not unusual to see both CN and ONR cars mixed in the same consist. In later years, CN converted a few barrel ore cars to scale test cars.



**Rapido** is booking advanced reservations for HO scale CN and ONR barrel ore cars. Both 35' and 42'

versions of the unusual enclosed ore car are being prepared.





Decorating schemes will include Canadian National 35' short barrel and 42' long barrel ore hopper cars in mineral brown.



Ontario Northland long barrel cars will be available in the road's blue and yellow chevron scheme. ONR short barrel cars will

be available in green. A short CN scale test car and undecorated models will also be available.



Features include full underbody and gate details, separate air and brake piping, see-through etched metal end

platforms, Kadee #158 couplers, and 100-ton Barber S-2 trucks with metal wheels. Rapido's HO scale closed barrel ore hoppers will be available singly and in three and six car packs with different car numbers. For additional information contact a dealer or visit [www.rapidotrains.com](http://www.rapidotrains.com).



**Rusty Rail** is selling a 1:87 scale cast resin model of a New England lobster boat. Components include a 3D printed ship's wheel and anchor, and several lobster traps. The boat is 6" x 2". The resin

castings are unpainted. For additional information visit [www.rustyrail.com](http://www.rustyrail.com).



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**Showcase Miniatures** is selling a kit for a 1:87 scale GMC short-hood 9500 dump truck. The kit is composed of resin cast cab and dump bed, photo-etched details, and cast pewter wheels and tires. The windshield panels are laser-cut. A tractor and wrecker version are currently under

development. For additional information visit [www.showcaseminatures.net](http://www.showcaseminatures.net).

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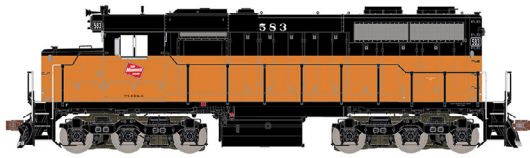


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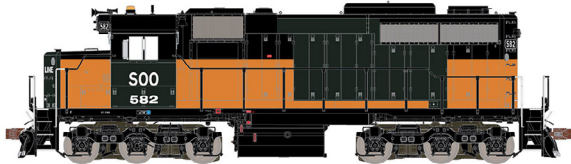
## SDL39 DIESEL LOCOMOTIVE

The SDL39 diesel locomotive consisted of a group of just 10 road switchers Electro Motive Division built in 1969-72 for the Chicago, Milwaukee, St. Paul & Pacific Railroad. The prime mover was a turbocharged 2,300hp EMD 645E3 12-cylinder diesel engine. With a goal of achieving a relatively light weight locomotive to replace its small fleet of aging Alco RSC-2s, CMStp&P ordered SD39 units on a short 55' 2" frame and specified FlexiCoil-C trucks. The result was the SDL39, which wore a variety of liveries as their ownership changed due to mergers. In addition to the original Milwaukee Road scheme, one of which was wrecked, the nine surviving SDL39s were decorated for Soo Line, Wisconsin Central, and FEPASA - Ferrocarril del Pacífico, the freight division of the national railway of Chile.

**ScaleTrains.com** is preparing an HO scale version of EMD's SDL39 for release later this year. The SDL39 will be in ScaleTrains.com's Museum Quality series with exceptional detail and adherence to the prototype. Road name, road



configuration, step types, and up to 30 operating LEDs.



Milwaukee Road numbers 581 to 585 replicate units EMD built in early 1969. Road numbers 586-590 feature details of prototypes delivered in late 1972. The SDL39s wore a modified Soo Line paint following their acquisition in 1985.



Wisconsin Central upgraded the radio system and repainted their newly acquired SDL39s in 1995.



When Canadian National took over Wisconsin Central, CN declared the SDL39s were not needed.

They were returned to the lessor who sold them to FEPASA in Chile. For additional information visit [www.scaletrains.com](http://www.scaletrains.com).



**Tangent Scale Models** has released a group of HO scale PS-2CD 4750 cu. ft. covered hoppers that accurately model the variations in Pullman-

Standard's 1973-1975 production of the popular prototype.



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The ready-to-run model is available in nine decorating schemes plus an undecorated kit.



Road names include ATSF class GA-191 as delivered in 1975, Minneapolis Northfield & Southern Railway painted as delivered in 1974, and two

versions of NAHX Ralston-Jefferson in pink.



Additional road names include PTLX Cooper Grain Colby, Kansas; PTLX Michigan Elevator Exchange in a 1973 scheme, and three variations (1974, 1992, and 2008) of PTLX Far-Mar cars.



Road and road number specific details include seven different brake systems, three different outlet gates, three styles of roof hatches, four jacking pad sets, two roof overhangs, three different running board and crossover platform options, and seven brake wheel housing and clevis options.



Common details on all versions of Tangent's PS-2CD 4750 include wire grab irons, etched metal running boards and

crossover platforms, Kadee couplers, and 100-ton Barber S-2 trucks with 33" machined metal wheels with rotating bearing caps. For more information visit [www.tangentscalemodels.com](http://www.tangentscalemodels.com).

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R. Bale

## NW2 DIESEL SWITCHER

Electro Motive Corporation introduced the NW2 diesel switch engine in late 1939. With a rating of 1,000hp, the NW2 was considered quite powerful for a locomotive that weighed only 124 tons and was just a little over 44' in length. EMC, and subsequently EMD, built 1145 of the popular NW2 before production ended in 1949. More than 50 North American railroads purchased the popular switcher. Many NW2s, readily identified by their dual conical exhaust stack, are still in service on short lines, light industrial applications, and tourist lines.



stacks, spotting features include the small front radiator grille, and large center cab windows.



and an undecorated model are also available.

**Walthers** has released an HO scale version of an EMD NW2 diesel switcher. The HO scale model represents a 1949 Phase V variation of the prototype. In addition to the twin exhaust

Available road names are Elgin, Joliet & Eastern; Union Railroad, and Indiana Harbor Belt which owned 78 of the prototype NW2s. An unlettered unit painted blue,



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Walthers HO scale NW2 is available for standard DC operation and with an ESU Sound and DCC decoder.



Walthers plans to release a group of 60' bulkhead flat cars next month. The Mainline model is based on a prototype with 8' 6"

low-profile bulkheads introduced by Pullman-Standard in the late 1960s. Walthers HO scale version rides on 70-ton roller-bearing trucks with 33" machined metal wheelsets. Road names will be Canadian National, Canadian Pacific, Indiana Harbor Belt, Weyerhaeuser, and three Trailer Train schemes. An undecorated model will also be available. For additional information contact a dealer or visit [www.walthers.com](http://www.walthers.com).

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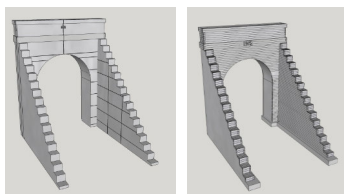


**Wilyma Hobbies** is selling a craftsman-style resin kit for an HO scale 50' Boston & Maine wood milk car with

truss rods. The model represents a car as rebuilt in the 1950s. The kit, produced exclusively for Wilyma by Funaro & Camerlengo, includes a one-piece resin body, appropriate trucks, decals, and assembly instructions. Wheels and couplers are not included. For additional information visit [www.wilymahobbies.com](http://www.wilymahobbies.com).

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**ZYX Creative** is releasing two new Southern Pacific concrete tunnel portals in HO scale. The two portals replicate Shasta Tunnel #10 and Coos Bay Tunnel #15. 3D printed in high resolution resin, each portal features prototypical detail such



as fine parallel lines on a smooth face on the Shasta portal and raised board form detail and concrete foundation on the Coos Bay model. Build dates can be customized on all ZYX Creative portals, and integrated liners are

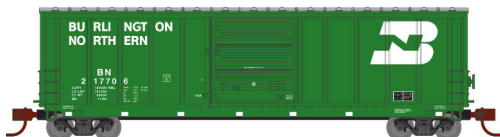
available separately. For more information visit [www.zyxcreative.com/tunnels](http://www.zyxcreative.com/tunnels).

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## N SCALE PRODUCT NEWS



will be available with and without DCC powered sound. Road names will be BNSF, Fruit Growers Express, Frisco, and three Burlington Northern schemes including one in Primed for Grime weathered paint.



Athearn has included a 50' PS 5277 cu. ft. Boxcar in its March 2022 production schedule. Road names for the N scale model will be Santa Fe, Canadian National, First Coast Railroad, Railbox, Burlington Northern, and Southern Railway. For additional information contact a dealer or visit [www.athearn.com](http://www.athearn.com).

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R. Bale

## EMD GP20 LOCOMOTIVE

Except for the short, square turbocharger stack and the flared radiator fans, the EMD GP20 is virtually identical in appearance to a late GP9. Following successful turbocharging experiments with nine Union Pacific GP9s in 1959, EMD introduced the GP20 in 1962. The turbochargers increased the output rating of EMDs model 567 16-cylinder engine from 1750 to 2000 horsepower.



**Atlas** has just released a new production run of N scale GP20 diesel locomotives.



Road names are EMD Demonstrator, Conrail, Southern Pacific, and Burlington Northern.



Atlas Silver DC models of the GP20 are sound-ready and come with a speaker to simplify installation of an after-market decoder. Atlas Gold DCC models are equipped with LokSound DCC sound decoders.



All versions feature directional lighting with LEDs, dual brass flywheels, and magnetic knuckle couplers. For additional information contact a dealer or visit [www.atlasrr.com](http://www.atlasrr.com).





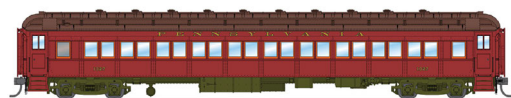
R. Bale

## PRR P70 COACH

The P70 was the Pennsylvania Railroad's first 80' all-steel coach. The P prefix designated a passenger car while the 70 indicates the length of the passenger compartment. Between 1907 and 1929 over 1,000 of the heavyweight coaches were built in Altoona and by other car builders. The design was standardized except for the windows at the washroom end of the cars which varied slightly between builders. The early cars featured 88 seats, but as of 1926 they were built with just 80 seats. After the installation of air conditioning, which began in 1933, the cars were identified as P70R.



Pennsylvania Railroad P70 coaches, both with and without air conditioning, will be available in Tuscan red in both 1931-1937 and 1939-1941 variations.



P70R cars with ice AC equipment mounted on the underframe will be available in PRR's 1945-1948 scheme.



1940s scheme. Four-car sets of PRR P70R coaches in Tuscan red will be available both with and without AC.



80' coaches will be available decorated in fantasy schemes for

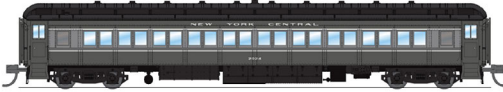


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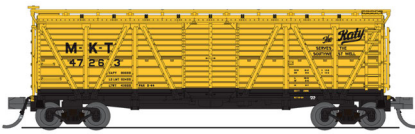
Central New Jersey (Blue Comet), and New York Central (two-tone gray).



Additional decorating schemes for the N scale 80' coaches include Maine Central (green and gold), and Canadian National (green and black).



Broadway Limited has scheduled an April release for a group of N scale stock cars fitted with cattle and hog sound effects. The design of the model was influenced by a 40' class K7A stock car developed by the Pennsylvania Railroad in the 1930s.



The BLI models are equipped with motion-operated on/off technology so that livestock noises can be heard when the train moves or is jostled. Each road name is available with a choice of cattle or hog sounds.



Road names will be Chesapeake & Ohio, Missouri-Kansas-Texas, Nickel Plate, Pennsylvania, Southern Pacific, Union Pacific, Western Pacific, and Union Stock Yards. Undecorated cars with sound will also be available. For additional information contact a dealer or visit [www.broadway-limited.com](http://www.broadway-limited.com).



**Jacksonville Terminal** is selling N scale 53' high-cube 6-42-6 corrugated containers decorated for Steve King's Virginia Midland.

This the first in a new series, named the Visionary Series, of containers that will be decorated for well-known model railroads including Tony Koester's Allegheny Midland, and Allen McClelland's Virginia & Ohio. For additional information visit [www.jtcmmodeltrains.com](http://www.jtcmmodeltrains.com).

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**KatoUSA** is selling N scale 5-unit Gunderson MAXI-I double stack cars with 10 removable 40' containers.



Road names for the well-cars include BNSF, Maersk, and TTX (new logo).



Each container has a magnet and a metal plate to hold it to the bottom of the well car or to the top of another Kato container. For more

information contact a dealer or visit [www.katousa.com](http://www.katousa.com).

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**Micro-Trains** dealers are accepting advance orders for a special 3-pack of 60' Union Pacific high-cube Plate F boxcars with rib sides and double plug doors. The model will have separate end ladders and brake rod detail, etched-metal brake platforms, and roller-bearing trucks with 36" metal wheels. Delivery is planned for May 2021.



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New Micro-Trains models available now include this 89' BNSF enclosed auto carrier. The N scale model is based on a prototype built in 2015.



Micro-Trains new 39' Southern Pacific tank car displays a white diamond with an S on the dome indicating the car was used for liquid sugar loading only.



Just two of Toledo, Peoria & Western's 40' boxcars with Superior sliding doors received this dark green paint scheme with yellow lettering. Like the prototype, Micro-Trains N scale version rides on Bettendorf plain-bearing trucks.



This 2893 cu. ft. triple-bay covered hopper was one of 10 cars the National Sugar Refining Company decorated in the eye-catching Jack Frost Cane Sugar scheme.



Completing the list of new ready-to-run models from Micro-Trains is this 14-panel 50' gondola with a removable cover. The N scale model follows a prototype built in 1965 that was equipped with Barber roller-bearing trucks. For additional information on Micro-Trains models contact a dealer.



**Mini Prints** has several new N scale figures of contemporary railroad

workers. The figures are available as unpainted 3D resin prints. For more information visit [miniprints.ca](http://miniprints.ca).

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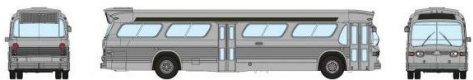
**Rapido** will soon begin production of a New Look Bus, also known as a Fishbowl Bus. The 1:160 scale model accurately replicates the more than 45,000 prototypes that served communities throughout North America from the late 1950s into the 1990s.



Rapido's N scale model replicates a TDH-5303 prototype with single stream rear doors. It has a seating capacity of 52 passengers plus the driver. The model accurately represents an early generation of the bus. A video highlighting Rapido's new N scale bus is available at [www.youtube.com/watch?v=SJyhpeSthLQ&feature=youtu.be](http://www.youtube.com/watch?v=SJyhpeSthLQ&feature=youtu.be).



Decorating schemes on the initial release will be Boston, GO Transit, Montreal, Santa Monica, and two schemes each for New York City and Toronto. Busses with generic paint schemes will be available in blue, red, white, and silver.



For additional information contact a dealer or visit [www.rapidotrains.com](http://www.rapidotrains.com).

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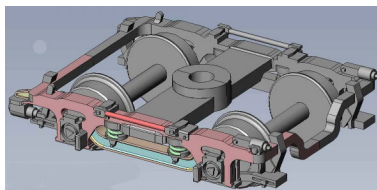
Jim King of **Smoky Mountain Model Works** shared a computer image of an N scale General Steel Casting truck for a New York City R32 subway car he recently produced. The



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truck, less wheels, was printed in clear resin at .002" layer thickness resulting in maximum detail.



Based on the success of the truck, King is considering designing N scale versions of the New York City T.A. R-32 subway cars for 3D resin

printing. If such a project moves forward, it may not be limited to N scale. Interested parties may contact Jim King thru his web site at [smokymountainmodelworks.com/design-rp-urethane.html](http://smokymountainmodelworks.com/design-rp-urethane.html).

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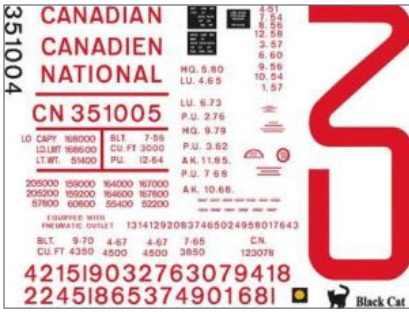
**Trainworx** is booking advance reservations for a new production run of its N scale 4427 cu. ft. Pullman Standard PS2CD covered

hopper. The ready-to-run N scale models will have etched metal roof walks and grab irons, and road specific trough hatches. Road names in this run will be CSXT, B&O Chessie System, Northern Pacific, Rock Island, Cargill, and two MKT schemes. Delivery is planned for the 1st quarter of 2022. Reservations can be made through a dealer or by contacting InterMountain Railway at [www.intermountain-railway.com](http://www.intermountain-railway.com).

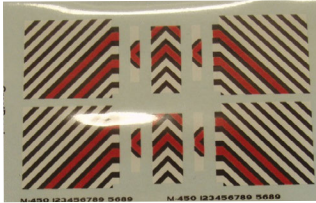
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## NEW DECALS, SIGNS AND FINISHING PRODUCTS

**Black Cat Decals** has two sets of water slide decals for HO scale CNR slab side covered hopper cars. The set for a silver car includes a red CN noodle. The second set has red block



letters for a grey hopper. Visit [www.blackcatdecals.com/product-category/ho-decals/cnr/cnrfreight-cars](http://www.blackcatdecals.com/product-category/ho-decals/cnr/cnrfreight-cars) for additional information.



**Great Decals** has new N scale decals for New York Central Rail Diesel Cars.

Each set includes road names and numbers, and the distinctive safety striping of the Budd-built RDCs. Penn Central applied these stripes to post-merger New Haven Budd cars.

Also new from Great Decals is an HO scale lettering set for Richmond, Fredericksburg, & Potomac 9000 series Thrall 54' covered hopper. Sufficient material is included to decorate two hopper cars. The set includes the full road name and block letter abbreviation, road numbers, heralds, dimensional and capacity data, consolidated lube plates, and Kartrak-ACI Labels.



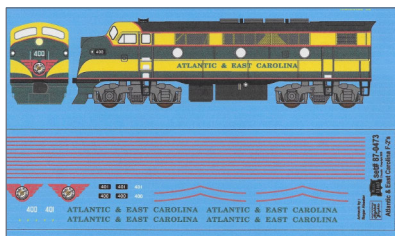
Great Decals has also released new HO scale water slide lettering set for Chesapeake & Ohio L-1

streamlined 4-6-4

Hudson locomotives. The decal set includes road names, road numbers, 'donut' heralds, striping, number boards, and tender data. Also new is a reissue of a white decal lettering set for Virginian Railway G-5 low-side gondolas. Each set provides

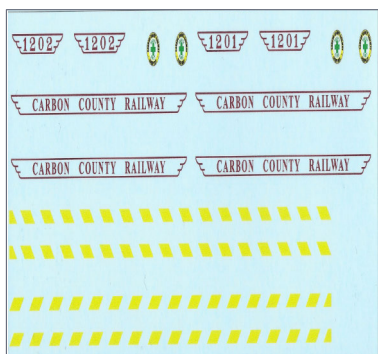
heralds, road names, side and end road numbers, and dimensional data specific to G-5 cars. Repack stencils and 12 canned road numbers are included. Although suitable for general application, this decal set is specifically designed for the Sunshine kit and Mantua 11-panel gondola. For additional information visit <http://greatdecals.com/WSM-154.JPG>.

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**Mask Island** is selling HO scale water slide decals for locomotives of the Atlantic & Eastern Carolina Railroad. For more information visit [www.maskisland.com](http://www.maskisland.com).

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German-based **Modelrailroadworks** has released new HO scale decals for Carbon County Railroad's SW9 switch engines. The set provides enough material to letter both SW9s owned by the Utah-based railroad. For additional information send an inquiry to [info@modelrailroadworks.de](mailto:info@modelrailroadworks.de).

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The **Speedwitch** line of HO scale freight car decals has been transferred to **National Scale Car**. The majority of the former Speedwitch decals are available and can be searched and ordered at [nationalscalecar.com/decals-ho-scale](http://nationalscalecar.com/decals-ho-scale). Out of stock decals are scheduled for reprinting, however, delays are anticipated due to the current pandemic.

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**Tichy Train Group** has announced the availability of a new full-color Decal Catalog. The catalog provides information on some 450 railroad related decals. To access the catalog visit [www.tichytraingroup.com/Portals/0/Instructions/2020 DECAL CAT for web rev 1.pdf?ver=2021-02-03-125112-000](http://www.tichytraingroup.com/Portals/0/Instructions/2020%20DECAL%20CAT%20for%20web%20rev%201.pdf?ver=2021-02-03-125112-000).



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## BRIEFLY NOTED AT PRESS TIME ...

**American Limited Division of San Juan Model Co.** has released HO scale models of GATC 16,000 gallon welded tank car. Decorating schemes include several variations for Spokane Portland & Seattle; Northern Pacific, and Santa Fe. For details visit [www.americanlimitedmodels.com](http://www.americanlimitedmodels.com) ...

**Atlas** has completed another release of its HO scale ACF 5,800 cu. ft. quadruple bay CenterFlow covered hopper. Road names are Americas Styrenics, BASF, AMOCO, Eastman Tennessee, Himont USA, Oxyvinyls, Polyone, Shintech, and Wells Fargo Rail ...

Atlas is taking reservations for an HO scale Gunderson Multi-Max auto rack. Details including a list of road names are available at [download.atlasrr.com/March2021MultiMaxConsumerOF.pdf?mc\\_cid=8855766aae&mc\\_eid=6bff0ec9ce](http://download.atlasrr.com/March2021MultiMaxConsumerOF.pdf?mc_cid=8855766aae&mc_eid=6bff0ec9ce) ...

**Bachmann** has released HO and N scale 2-6-2 Prairie steam locomotives decorated for Union Pacific, Canadian National, Baltimore & Ohio, Northern Pacific, and Chicago, Burlington & Quincy. The N scale version is also available for Pennsylvania, Southern Railway, and Santa Fe ...

**Morning Sun Books** has announced the release of Volume 2 of *Conrail in the Norfolk Southern/CSX Era* ...

**RailSmith** has added Southern Railway lightweight sleepers to the list of N scale cars available for the NYC/SOU/FEC Royal Palm. ■



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# SELECTED EVENTS



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***Due to COVID-19 restrictions, please check with any organization hosting an in-person event for the latest status of the event.***

## Ongoing 2021

**ONLINE, Zoom**, dates vary, see website. Operation Special Interest Group Meetups – limited attendance available. For more information visit [www.opsig.org/Virtual](http://www.opsig.org/Virtual). Past meets are available online at [www.opsig.org/Virtual/Past](http://www.opsig.org/Virtual/Past).

**ONLINE, Zoom & YouTube**, Wednesday & Saturday, see Facebook page. “New Tracks” Meetup, hosted by Jim Kellow, MMR. See [www.facebook.com/newtracksmodeling](https://www.facebook.com/newtracksmodeling) for more information.

**ONLINE, Facebook & YouTube**, dates vary, see Facebook page. “NMRax” organized by Gordy Robinson, Martyn Jenkins, Gert Muller, Jordan Kramer. See [www.facebook.com/groups/nmragroup](https://www.facebook.com/groups/nmragroup) for announcements.

**ONLINE, YouTube**, every other Saturday. 4th Division, Pacific Northwest Region, NMRA hosts online layout tours and clinics. Archive available at [www.youtube.com/c/4DPNRMovies](https://www.youtube.com/c/4DPNRMovies).

**ONLINE, Zoom**, Second Tuesdays, 8pm EST. “Off the Beaten Track” featuring Narrow Gauge layouts and manufacturers. For more information visit [groups.io/g/NNG](https://groups.io/g/NNG).



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## March-April 2021

**ONLINE, Zoom & YouTube**, March 20-21, New Tracks 4th Virtual Train Show, 1pm Eastern Time. Register at [newtracksmodeling.com/train-shows](http://newtracksmodeling.com/train-shows).

**ONLINE, Facebook & YouTube**, March 27, NMRAx, organized by Gordy Robinson, Martyn Jenkins, Gert Muller, and Jordan Kramer. See [www.facebook.com/groups/nmragroup](http://www.facebook.com/groups/nmragroup) for more information.

**ONLINE, Facebook & YouTube**, April 10-11, NERx – NMRA Northeastern Region event. For more information visit [www.nerx.org](http://www.nerx.org).

**ARIZONA, PHOENIX**, March 20, Adobe Mountain Desert Railroad Swap Meet, sponsored by Sahuaro Central. Adobe Mountain Desert Railroad Park, 22822 N 43rd Ave. For more information visit [www.arizonamodeltrains.com/am.shtml](http://www.arizonamodeltrains.com/am.shtml).

## Future 2021-2022 by location

**NEW ZEALAND, DUNEDIN**, May 8-9, Dunedin Model Train Show. Taieri Bowling Club, 12 Wickliffe Street, Mosgiel. For more information email [dunedinmodeltrainshow@gmail.com](mailto:dunedinmodeltrainshow@gmail.com).

**CALIFORNIA, IRVINE**, September 8-11, Pacific Southwest Region/NMRA Convention.

**CALIFORNIA, SANTA CLARA, CONVERTED TO VIRTUAL** – July 6-10, 2021, Rails By the Bay, 2021 NMRA National Convention. The convention will be conducted as a virtual event with pre-recorded content and live Q&A's. For more information visit [www.nmra2021.com](http://www.nmra2021.com).

**COLORADO, COLORADO SPRINGS**, May 22, TECO Model Train Outdoor Swap Meet. Chapel Hills Mall, 1710 Briargate Blvd. For more information visit [www.tecoshow.org](http://www.tecoshow.org).

**FLORIDA, MELBOURNE**, June 5, September 4, December 4, Original Melbourne Train and Toy Show, sponsored by Schultz Space Coast Trains, Azan Shrine Center, 1591 W Eau Gallie Blvd. For more information visit [schultzspacecoastrains.com](http://schultzspacecoastrains.com).

**FLORIDA, TALLAHASSEE**, June 26-27, 30th Annual Tallahassee Model Railroad Show and Sale, sponsored by Big Bend Model Railroad Association, 441 Paul Russell Rd. For more information visit [www.facebook.com/events/745873359647741](http://www.facebook.com/events/745873359647741).

**GEORGIA, CARTERSVILLE**, October 2-3, 2021 Piedmont Division Model Train Show, Clarence Brown Conference Center, 5450 GA-20. For more information visit [themodeltrainshow.com](http://themodeltrainshow.com).

**INDIANA, FRANKLIN**, May 15, Franklin Train Show, presented by the Central Indiana Division of the NMRA. Johnson County Fairgrounds. For more information visit [www.cidnmra.org/services](http://www.cidnmra.org/services).

**MISSOURI, St. LOUIS**, August 7-14, 2022, NMRA National Convention and National Train Show.

**NORTH CAROLINA, HICKORY**, September 1-4, 41st National Narrow Gauge Convention, Hickory Metro Convention Center and Crowne Plaza Hotel. For more information visit [41nngc.com](http://41nngc.com).

**PENNSYLVANIA, KUTZTOWN**, May 15, July 17, August 28, all 2021. Renningers Model Train Meet, 740 Noble Street. For more information see [renningers.net/events/model-train-meet](http://renningers.net/events/model-train-meet). ■



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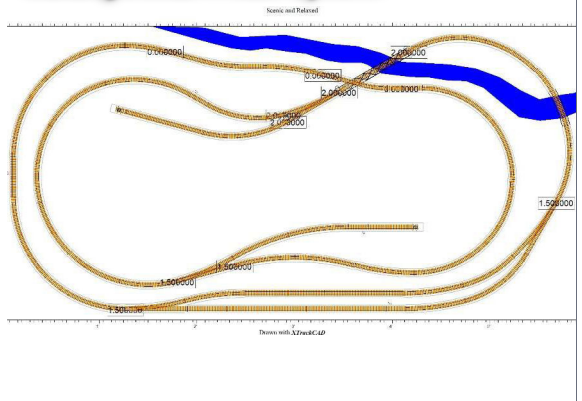
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