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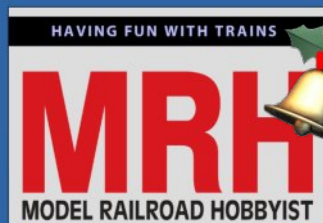


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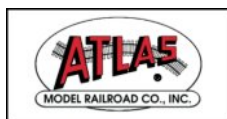
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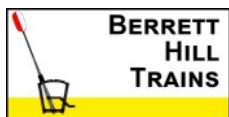
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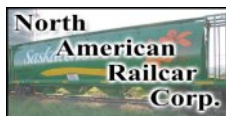
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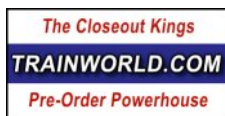
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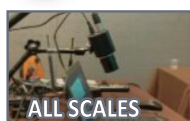
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PUBLISHER'S MUSINGS



Model Railroad Hobbyist | December 2025

**JOE FUGATE: RUN LIKE A DREAM: THE FINAL
PIECE OF THE PUZZLE ...**



I HAVE SOME NEWS I'VE BEEN WAITING A LONG TIME TO SHARE:

I expect to finish *Run Like a Dream: Locomotives* by year's end. After five years of delays, disruptions, and detours, the final book in the trilogy is just weeks away from completion!

For those of you who've been waiting – and I know many of you have been waiting patiently since the original 2020 release date – thank you. For those just discovering this series, let me bring you up to speed on what this trilogy is all about and why I'm so eager to finally get this last volume into your hands.

The journey to this point

I started writing *Run Like a Dream: Locomotives* in 2019. I had about 30 pages done when COVID hit, and like so many things in those years, the project went completely sideways. Then in 2022, we relocated the entire business from Portland, Oregon, halfway across the country to Tulsa, Oklahoma. Between the pandemic and the move, other priorities took over for several years.

I restarted the locomotive book in earnest in 2024, and I'm happy to report I'm now at 74 pages with about 26 more to go to hit my target of 100+ pages. At this point, I'm looking at roughly six days of focused work to wrap it up. And believe me, I am ready to be done!

This completes a trilogy that began in 2016 with *Run Like a Dream: Trackwork*, followed in 2018 by *Run Like a Dream: Rolling Stock*. We pre-sold the series, so there are more than a few folks who've been eagerly – and I mean *eagerly* – awaiting this final volume.

Five years past the original release date is a long time to wait, and I surely appreciate everyone's patience!

Where it all started

The genesis of this entire series came from a visit I made to Mike Confalone's spectacular Allagash Railway. If you're not familiar with Mike's work, he models 1980s Maine railroading in the early spring, complete with melting snow patches scattered throughout the layout. It's breathtaking modeling, but what really struck me wasn't just the scenery – it was the operating session.

Everything ran like the proverbial Swiss watch. The only issues during the entire session were occasional minor operator mistakes. Otherwise, the railroad performed flawlessly with no equipment failures. I had to ask Mike: how did he do it?

He said it wasn't an accident. You have to deliberately plan for things to run right. You need to have a quality process that ensures consistently good results. You need to plan to do it right the first time, not "fix it later." And you need to standardize on a single vendor you trust for critical components like couplers, wheelsets, and locomotive decoders.

Mike's approach reminded me of Edward Deming's total quality management principles – single-source suppliers and consistent, repeatable processes. Not "fix it later," but build it right from the start. These are principles that have been field-tested in manufacturing for decades, and they apply beautifully to model railroading.

That conversation inspired me to write what I hoped would be the definitive best-practices book series on how to get the triad of components to perform their best: trackwork, rolling stock, and finally, locomotives.



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How the first two books were received

The response to the first two books has been incredibly gratifying.

Readers have called the trackwork volume “the new bible on trackwork.” One modeler told me, “My rolling stock performance problems all disappeared when I followed your recommendations.”

That’s exactly the kind of transformation I was hoping to help people achieve. When you apply sound principles systematically, performance problems that seemed mysterious or unsolvable just... disappear.

The hobby becomes what it should be: satisfying and fun, not frustrating. I find having all this expert information at my fingertips to be a great timesaver (don’t have to spend hours searching online) and it sets me up for a quick win.

If you’d like to check out the first two books, you can find them on the MRH Store here: [Trackwork](#) / [Rolling Stock](#).

What's in the locomotive book

Let me give you a preview of what *Run Like a Dream: Locomotives* covers. The book aims for 100+ pages in paperback (we also sell downloadable PDFs), and it's designed to work across all scales and all eras, covering both steam and diesel locomotives.

Chapter 1: Realizing the dream of bulletproof performance lays out the philosophy and approach. This is where I establish the framework for everything that follows – why bulletproof performance matters and how to achieve it systematically. I introduce a concept I call “The Chester Principle.” It's named after Chester Goode from Gunsmoke, who always wore both a belt and suspenders, and it's a foundational principle that runs throughout the book.

Chapter 2: Break-in, testing, and lubrication covers these concepts in a definitive way. Proper break-in and lubrication can “set” the loco mechanism correctly for a life of great performance, and there are right ways and wrong ways to do this.

Chapter 3: Preventative: electrical pickup applies the Chester Principle thoroughly. The idea is to assume Murphy's Law is right – if something can go wrong, it will – and build in redundancy to combat Murphy.

With locomotive power pickup, this means having *two separate* paths from the wheels to the motor. I recommend adding wipers to the locomotive wheel treads and running separate wires from the wipers to the decoder, giving you complete redundancy and a second power path from the wheels to the decoder and motor.

The result is a locomotive that's virtually stall-proof. For even more protection, add stay-alive capacitors to the decoder motherboard. Belt and suspenders – the Chester Principle in action.

I also discuss recommendations on doing battery-powered locomotives as of 2025.

Chapter 4: DCC and programming covers DCC decoder programming and common CV settings that have been proven to work. I also talk about JMRI, the ESU LokProgrammer, programming tracks, decoder testers, and decoder installation tips. This chapter is about three-quarters done, with an estimated four pages and one day of work remaining.



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Chapter 5: Locomotive lighting tackles LED and fiber optic lighting and wiring tips. This chapter is just started, so another four pages and a day's work to finish.

Chapter 6: Locomotive sound addresses the most effective approach to doing locomotive sound and gives guidelines on how to choose the right sound decoder to standardize on.

Single-sourcing is important here because there's enough variation among the different popular sound decoders that consisting locomotives can be a real problem.

I also get into choosing the right speakers and provide installation and programming tips. Finally, I discuss setting good sound levels.

This chapter is also about three-quarters complete – four more pages, one more day.

Chapter 7: Locomotive tuning and maintenance is written in rough draft form and just needs polishing and illustrations. This has been the most difficult chapter to write, but it's nearing completion.

Finishing up this one will add about 10 pages and take roughly two days to complete.



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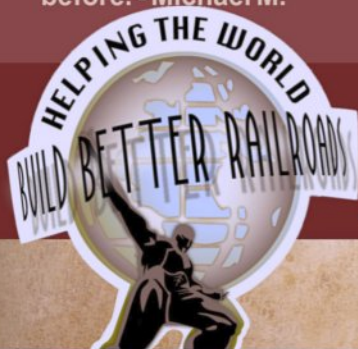
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Chapter 8: Enhancing Locomotive Ops Realism is where we get into some really interesting territory. This chapter covers setting speed curves, and it introduces a concept I call “speed compression.”

You're probably familiar with selective compression – the idea that because we don't have an aircraft carrier to model in, we need to compress things. A big freight warehouse with 20 stalls might be compressed down to 5 stalls to keep the signature structure's overall look while fitting a much smaller footprint on your layout.

Speed compression applies the same principle to locomotive speeds. Why rush through operations? Let's extend the fun by reducing the top speed of our locomotives.

For example, why do passenger trains need to rush around the layout at 80 scale mph, when dropping to, say, 45 mph will make the run take longer and make the layout feel larger?

With freight trains, rather than 40 or 50 mph, why not run them at 20-25 mph and again make the run longer and the layout feel bigger?

It's really hard to tell exactly what scale speed is on the model, so what's the rush?

Chapter 8 also covers running with high momentum and braking settings to give your locos and trains a real sense of mass. I have found this kind of operation, once you get used to it, to be a gamechanger when it comes to operating fun.

This chapter's about a quarter done – four pages and one day to finish.

Finally, there's a **Series Wrap-up** to tie everything together (done).

Add it all up, and I've got about 26 pages left to write, which should take approximately six days of focused work. That gets me to right at 100 pages and done!

Standardizing is important

When I make specific product recommendations, they're ones that are rarely disputed – like Kadee couplers for the larger scales (HO and larger) and Micro-Trains couplers for N and Z scale. But for



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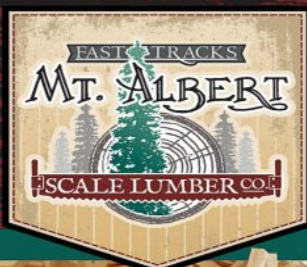
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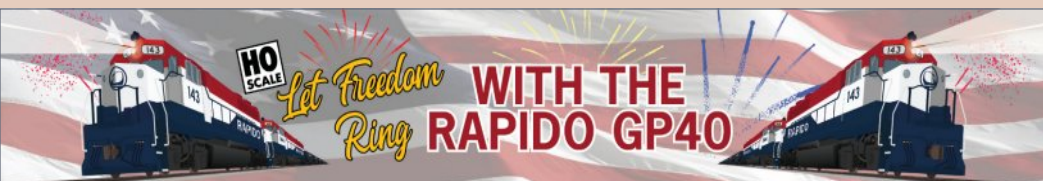
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most products, my emphasis is on the principle of standardization rather than pushing particular brands.

What I emphasize more is Edward Deming's approach: choose a single source you trust for critical components, and develop a consistent, repeatable process. That's what leads to reliable results. I aim to help you select the specific products that are best *for you*.

What happens next

I'm planning for *Run Like a Dream: Locomotives* to be available on the MRH Store by late January, joining its companion volumes on trackwork and rolling stock.

For those who've been waiting since 2020, thank you for your patience. For those new to the series, welcome – you're in for a treat. And for everyone, I'm excited to finally be completing this journey and to share what I've learned about getting locomotives to run like a dream.

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JIM SIX



Getting Real: More Less-than-Car-Load operations

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Best of the

MRH FORUM



Model Railroad Hobbyist | December 2025

Compiled by **JOE FUGATE**



Cass County locomotives

MRH forum member **Tom Johnson** has a long running journal/blog about his Cass County layout. Tom does fabulous modeling and he posts breathtaking photos of his work regularly to this blog.

In his recent blog post, Tom posted something a bit out-of-the-ordinary: some nice photos of work he's doing on some locomotives. As you would expect, Tom's modeling doesn't disappoint.

For some great modeling, visit Tom's blog to see what he's up to!



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

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



1. *MRH* forum member **Speedbird100** (Joseph L.) is building a small Z scale layout of the Santa Fe Raton Pass summit. That's right, Z scale!

Raton Pass in Z scale

MRH forum member **Speedbird100**(Joseph L.) says:

"I chose Raton Pass because it offered all three of the things I love in model railroading: coal, passenger trains, and helper operations. Raton is railroading. I chose the name "Raton Past" for the layout name as a little play on words.

"The first decision was how big the new layout would be. I had ample space set aside for an empire, but the idea of tying up a whole room for something like this seemed a little much. So I reverted to [a small coffee table design] and began construction on a layout that would incorporate everything I wanted – and be portable. This would be Raton Pass, distilled [1]."

See the *MRH* forum to follow this interesting layout build.

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



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2. *MRH* forum member modeler **EGRX** (Eugene G.) posted this photo of a piling/pole loading yard industry as an example of a switching layout industry idea.

Industries for small switching layouts

MRH forum member **ArborRails** started a thread to discuss the ideas for industries you could model on small switching layouts.

Many folks posted various ideas. One of the most interesting came from a post by EGRX (Eugene G.) showing a piling/pole loading yard [2]. **ArborRails** responded, “These industries can take: 89' LTTX flats w/ bunks, 62' bulkhead flats with bunks, 60' skeleton log cars, 60' flat cars for idlers when they ship over-length poles (90+ ft), centerbeams of lumber for cribbing/donnage, and tank cars of creosote.

See the full thread for more great industry examples like this.

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



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Recent photo fun thread

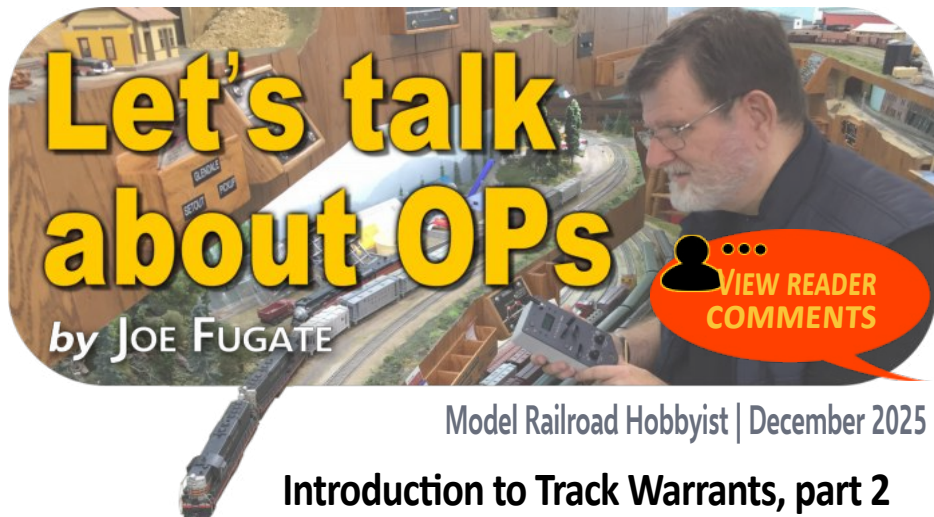
These images posted on a recent *MRH* forum Photo Fun thread show some awesome structure interior views.

[View list of recent Photo Fun threads](#)

3. *MRH* forum member **thewizard1** (Charles D.) this peek into a fully detailed and lit interior of a salvage workshop on his layout. This is some excellent modeling and photography. View the photo on the forum to see it in all its glory!



4. Forum member **Mark Mathu** posted this photo taken on the North American Prototype Modelers' HO scale layout in Milwaukee inside Union Terminal. Mark says, "This wasn't done with mirrors — several club members pooled their power to create the scene." ☒



Introduction to Track Warrants, part 2

LAST TIME I INTRODUCED YOU TO TRACK

WARRANT FORMS AND the “named point” terminology that’s used. This time let’s get into the track warrant form [1] and how to request authorization from the dispatcher.

The crew caller assigned you a train in Eugene destined for Medford on my layout. It’s a two person crew with a conductor and engineer.

Requesting a track warrant

Conductor: “Roseburg Dispatcher, this is Conductor Smith in Eugene, requesting clearance for SP 4408 to depart westbound, final destination Medford. Over.”

Dispatcher: “4408W, this is Roseburg Dispatch. Tell me about your train. Over.”

Conductor: “Dispatch, we have 4 locos, 4408, 4411, 4302, and 4407. We have 28 cars and a caboose. Over.”

Dispatcher: “Okay, 4408W, are you ready to copy a track warrant? Over.”

Conductor: “Affirmative, Dispatch. Ready to copy. Over.”

Dispatcher: “This is track warrant number 101, Date, September 5, 1980. To: 4408W at Eugene. Check box 2. Proceed from Eugene to Roseburg. Check box 9. Clear main track at last named point. Over.”




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1. Here is the track warrant form that I used in op sessions on Siskiyou Line 1. I adapted this form from an actual Southern Pacific track warrant form, simplifying it slightly. The form reproduced here fits four up on a standard 8x10 piece of paper.

SOUTHERN PACIFIC		Track Warrant
NO. _____		_____, 19 ____
To: _____	At: _____	
1. <input type="checkbox"/> Track Warrant NO. _____ is VOID.		
2. <input type="checkbox"/> Proceed from _____ to _____		
3. <input type="checkbox"/> Proceed from _____ to _____		
4. <input type="checkbox"/> Work between _____ and _____		
5. <input type="checkbox"/> Joint with: _____		
6. <input type="checkbox"/> Not in effect until after arrival of _____ at _____		
7. <input type="checkbox"/> This authority expires at _____		
8. <input type="checkbox"/> Hold main track at last named point.		
9. <input type="checkbox"/> Clear main track at last named point.		
10. <input type="checkbox"/> Between _____ and _____ make all movements at restricted speed. Limits occupied by train, engines, men, or machines.		
11. <input type="checkbox"/> Do not exceed _____ MPH between _____ and _____		
12. <input type="checkbox"/> Other specific instructions: _____ <div style="border-bottom: 1px solid black; height: 15px; margin-top: 5px;"></div> <div style="border-bottom: 1px solid black; height: 15px; margin-top: 5px;"></div>		
OK _____ M	Dispatcher _____	
	Copied by _____	
Reported clear at _____ M By _____		
(Mark an 'X' in the box for each item instructed.)		

Conductor: “We have track warrant number 101, Date, September 5, 1980. To: 4408W at Eugene. Check box 2. Proceed from Eugene to Roseburg. Check box 9. Clear main track at last named point. Over.”

Dispatcher: “That's OK at 12:13pm. Dispatcher, JDF. Over.”

Conductor: “OK at 12:13pm. Dispatcher, JDF. Copied by RWJ. Over.”

Dispatcher: “Roseburg Dispatch, over and out.”

Conductor: “SP 4408W, over and out.”

We used FRS radios to communicate. You have a track warrant form on a clipboard and you fill it out as dispatch tells you what to write. That makes reading the warrant contents back to dispatch quite easy, validating a good copy. ☑



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WHAT'S NEAT

column



Model Railroad Hobbyist | December 2025

KEN PATTERSON COVERS THIS MONTH:



- HO SCALE SD45 FROM BLI
- BACHMANN'S NEW ACELA II
- LAYOUT CONSTRUCTION: REBUILDING THE LAYOUT PART 1



click to play video

PHOTOS AND VIDEO OF SUPERB MODELS

FOR THE NOVEMBER “WHAT’S NEAT,” Ken first shows BLI’s Louisville & Indiana SD45 model and Bachmann’s Acela II trainset. The rest of the video shows Ken in construction mode, removing a 12-foot section of the basement layout and cutting it down to a new width.

Broadway Limited’s SD45 in HO scale



1. Broadway Limited sent Ken one of the new HO scale SD45 locomotive models, decorated in the Louisville & Indiana's Support our Veterans paint scheme. It's equipped with Paragon4 sound.

Info: broadway-limited.com



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Bachmann's new Acela II train set



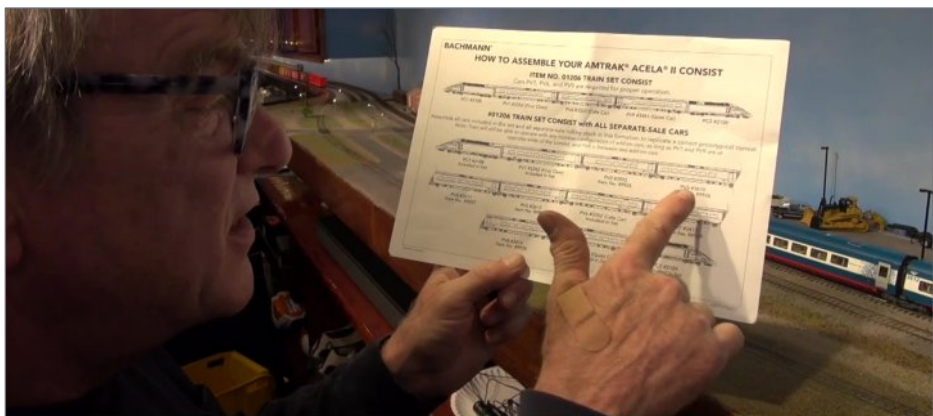
2. Ken gets sent some of the nicest toys. This month Bachmann sent him the new Amtrak Acela II train set and the additional six cars needed to make up the full Acela II train. The set comes with two power cars, one powered and one dummy, and three of the articulated cars. It also comes with track and a DC power pack.



3. The additional articulated cars are available separately and require the Acela II power cars from the train set.



4. To run under DCC, a 21-pin decoder needs to be installed in each of the power cars. The one in the dummy is to control the lights in that unit – marker lights when in the rear, head and ditch lights when traveling that direction. The Acela II is equipped with a speaker in the powered end unit, and Ken installs one in the dummy unit for a sound decoder. He also installs SoundTraxx CurrentKeepers.



5. Bachmann includes a diagram showing what order the cars are arranged on the prototype, so Ken puts them all together and gets them running in the basement.

Info: bachmanntrains.com



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Layout (re)construction part 1



6. Ken has rebuilt the section of layout that spans the area in front of his basement window a couple of times since the layout was built in 2007. It's been as narrow as 12 inches and as wide as three feet with dual-gauge track.



7. Ken wanted to make the new section fit the width and scenery contours of the section closest to the camera as well. To do this, he marked where he'll be cutting the end plate of the section he's rebuilding.



8. Ken trimmed the old section to the new shape according to the outline he'd drawn on it, in order to use it as a pattern on a new sheet of foam.



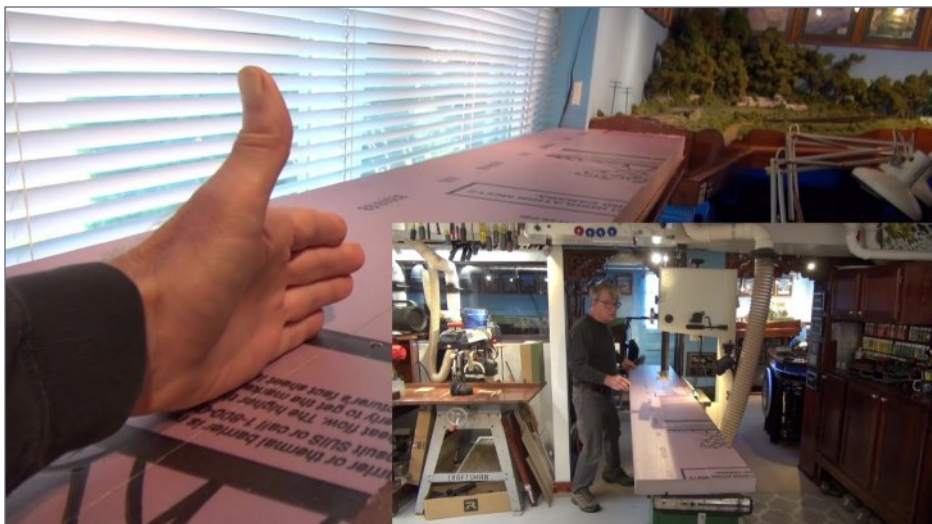
9. Both layers of foam for the new section were cut from a single 4x8 sheet of foam.



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10. As Ken was assembling the pieces of foam on the support, he discovered that one of the bottom pieces had a bow in it. Using a band saw to slice down the middle through the bow allowed the now two piece section to lie flat.



11. Ken used his favorite Great Stuff Pro foam to assemble the new section in place, as he didn't have a workbench large enough to support the separate pieces.



12. Once the glue had cured, Ken moved everything back to his workbench where he sanded the sides smooth and routed-out the groove he fills with wood blocks to staple his fascia plywood to.



13. One change Ken will make involves the track on the next section of the layout. The bridge, which is laid with Code 70 rail in the middle of the Code 83 mainline, has a slight curve that Ken plans to remove, adjusting the track about $\frac{3}{4}$ of an inch toward the front of the layout while making everything here Code 83.





14. After sealing everything with house paint, Ken moved the section back to its eventual location so he could start working out where he wanted to run the track, as well as how many tracks he wanted. Adding a #10 switch to the section on the left allows him to run two parallel tracks down the new section. With that accomplished, see Part 2 in January to see how he's going to finish the section..

Click on the video link at the beginning of the article to see the full video, including the SD45 from BLI, the full Bachmann Acela II assembly and run-bys, and all the techniques that Ken used to get his new layout section assembled. ✓

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Telegraphy – from Prototype to Layout



Electrical
Impulses

Model Railroad Hobbyist | December 2025



DR. GEOFF BUNZA MODELS AUTHENTIC TELEGRAPH
POLES, LINES, AND WORKING OPERATOR SOUNDS ...

**THOSE MODELING ANY TIME BETWEEN 1850
AND 1951 OFTEN INCLUDE** telegraph poles and lines to
represent those their prototypes used. Having collected some
prototype telegraph gear over the years, I finally decided my
model rail operations needed an equivalent.

Starting with a short history of railroad telegraphy, including a
brief background of the prototype equipment, I will show how to
build your own realistic telegraph operator on any scale.

HISTORY AND BASIC EQUIPMENT FOR YOUR OFFICE

My interest in railroad telegraphy started many years ago when I acquired an old Lionel-made code key [2] at a local ham radio swap meet. Better known for making model trains, Lionel built code keys in the 1940s as part of the war effort for communicating Morse code via radio. I rarely used it as a ham radio operator, but it spurred an interest in telegraphy since I was also a railroad buff.

Telegraphy began way back in the early 1800s with a coil of wire, a cell [3], and a man, Michael Faraday [4], whom Einstein once called the greatest experimental physicist ever. Faraday experimented with electromagnetic induction, and invented transformers, electric motors, generators, and electroplating.



1. Basic equipment for telegraphy.



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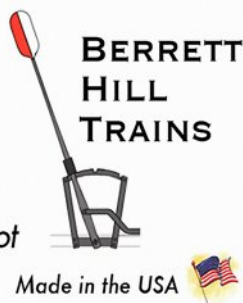


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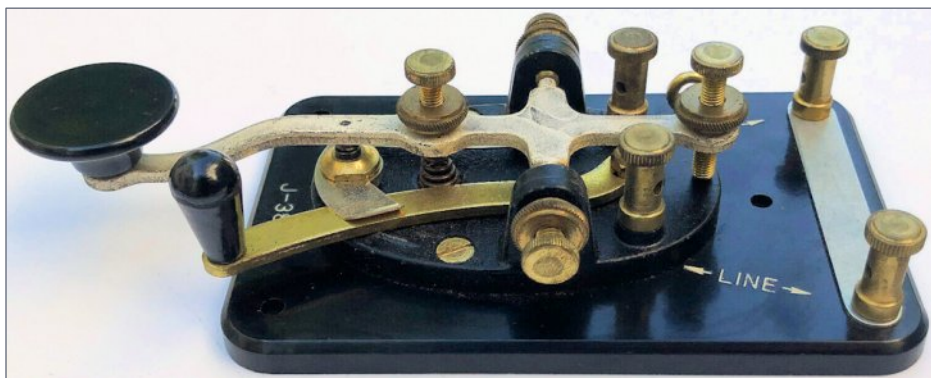
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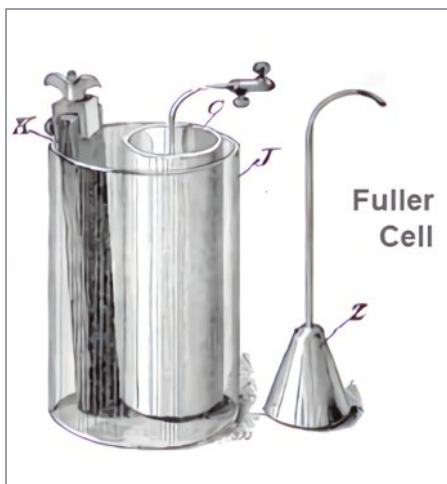
2. Lionel J-38 code key.



M. Dodd

BATTERY VS. CELL

Terminology clarification: A “cell” is the basic component that produces electricity from a chemical reaction. A “battery” is a *group of cells* wired together to produce a higher voltage. Today, we speak of a “double-A cell” or a 9-volt battery,” both of which are correct terms.



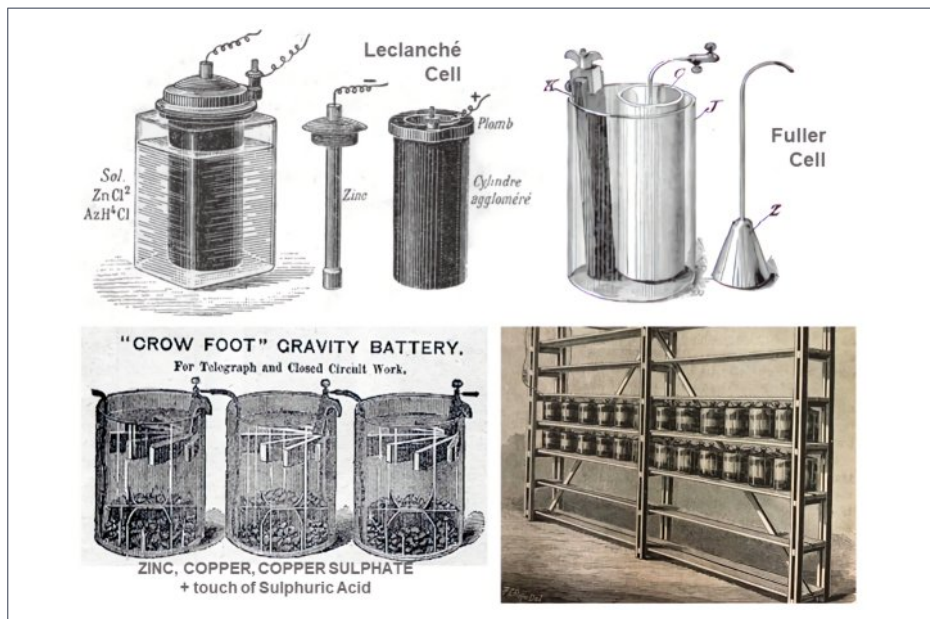
3. Fuller cell.





4. Michael Faraday. Image from Micael Faraday. *His Life and Work* by Prof. Silvanus P. Thompson, 1898

Different types of "wet" batteries were the most reliable source of power, albeit producing low voltages. Wet batteries in racks were placed in series to generate line voltages of over 100 volts DC [5].



5. Wet batteries.



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With the perfection and application of many of these inventions, Samuel Morse developed an apparatus and code around 1838 for communicating over wire. Morse code was born.

The first telegraph lines were run with two copper wires, with one serving as the signal, and the other as the return, or ground. Almost coinciding with Morse's first transmissions, German scientist C.A. von Steinheil discovered that the earth could be used as a return for telegraph signals. This discovery meant that a single, thicker galvanized steel wire could be used to transmit a telegraphic signal over hundreds of miles, at considerably lower cost than copper.

Morse quickly incorporated the discovery into his work. The earliest commercial telegraph line in the United States was constructed from Baltimore to Washington, DC in 1844. Morse transmitted the first message from the Senate wing of the US Capitol to Baltimore on May 24 of that year.

It is believed that the Erie Railroad (one of the earliest users) started telegraph operations in 1851. Telegraph was common by the start of the Civil War in 1861.

Most telegraph lines built into the late 1880s and even later were single-wire steel cables of varying thicknesses. Copper wire came back in vogue to replace the steel toward the later part of the 19th century.

Diagram [6] illustrates the general inter-office telegraph connections from one major endpoint to another with a single intermediate way station (local office).

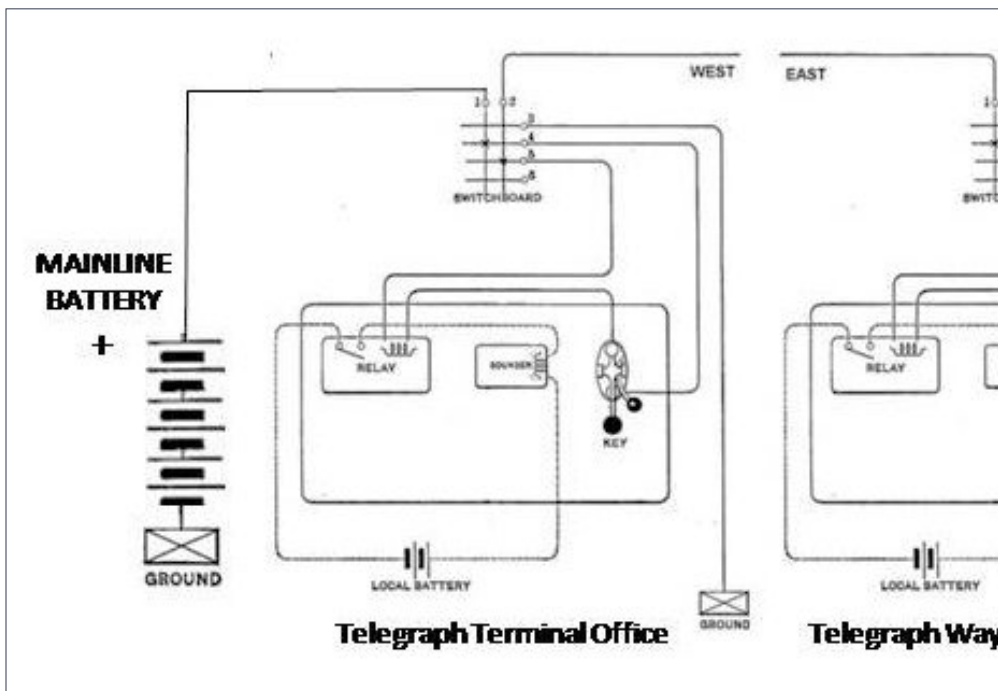
Each terminus connects its end to a large battery of opposite polarity, often over 100 volts. Early on, these would be wet-storage cells maintained by the telegraph office at the site.

Local operators would maintain the smaller local batteries in each office as part of their normal responsibilities. Maintenance included battery jar cleaning and chemical replenishment on a daily and/or weekly schedule.

Early telegraph was sent and recorded on paper tape by printing telegraph "receivers" or "registers." Telegraph "sounders" quickly replaced them when it became clear that human operators could send and receive transmissions faster and more reliably than registers.

Telegraph transmission printed on the recording tapes appeared as indications of short and longer marks made by the receiving relay in the telegraph recorder, giving rise to the notion of "dots" and "dashes."

However, this was **not** Morse Code as radio operators currently know it. It was a different code now known as **American Telegraph Code** and later American Morse Code (for radio use) and was different again from **International Morse Code**. They



6. Inter-office telegraph line.

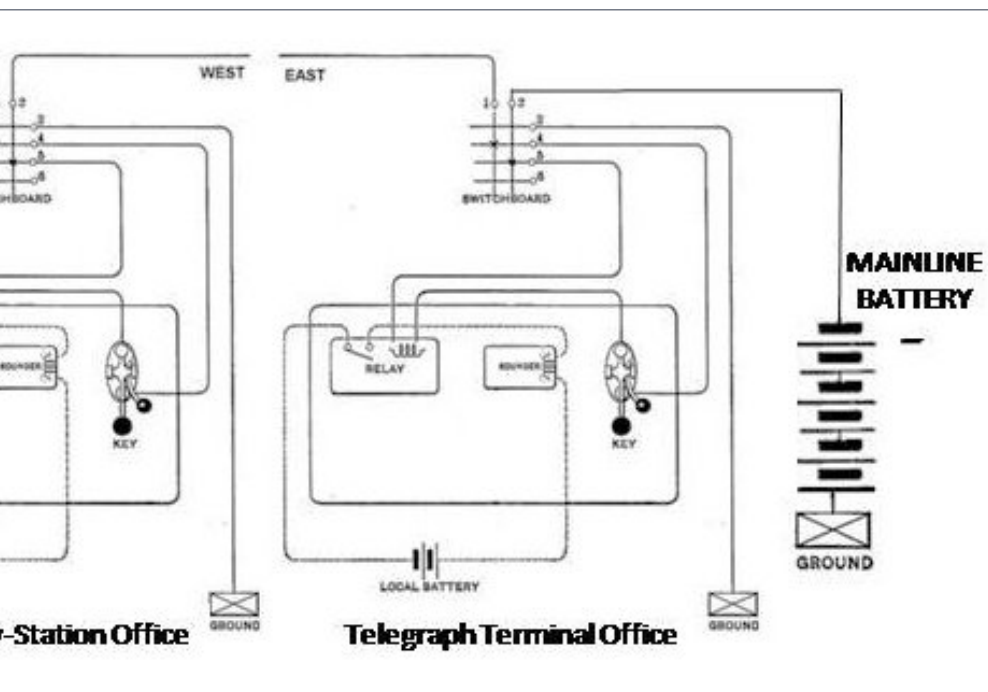


are not the same codes. European code needed additional accent marks missing from American codes [7]. Here is a small sample of American code received by a Western Electric (WE) telegraph sounder: www.scalemodelanimation.com/MRH/Random_Tel_msgs30wpm.mp3

Agreements with local and national telegraph companies like Western Union often obliged railroad telegraphers to accept private telegraph messages along with railroad communications. However, railroad messages took priority.

Alexander Graham Bell had his public display of the first telephone in 1876, and railroads began experimenting with the technology shortly thereafter. Telephone began to supplant the telegraph in railroad use by the late-1800s.

Article text continues on page 10 ...



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TELEGRAPH CODES.

LETTERS.	MORSE.	CONTINENTAL.	BAIN.
A	.-	.-	.-
B	-...-	-...-	.-.-.
C	..-.	-.-.-	...-
D	-.-.	-.-.	...-
E	.	.	.
F	.-.-.	..-.-	.-.-.-
G	-.-.-	-.-.-	.-.-.
H--	.-.-.
I
J	.-.-.-.	.-.-.-	...-
K	-.-.-	-.-.-	.-.-.-
L	-.-	.-.-.-
M	-.-	-.-	.-.-.-
N	-.-	-.-	...-
O	---	---	-
P	.-...-	.-.-.-	.-.-.
Q	.-.-.-	.-.-.-	.-.-.-
R	.-.-.	.-.-.	.-.-.
S	...-	...-	...-
T	-	--
U	...-	...-	-
V	...-	...-	.-.-.-
W	.-.-.-	.-.-.-	.-.-.-
X	.-.-.-	.-.-.-	.-.-.-
Y	..-.-.	.-.-.-	.-.-.
Z	...--	-.-.-	.-.-.
&	..-.-.		.-.-.-

NUMERALS.

	MORSE.	CONTINENTAL.	BAIN.
1	.-.-.-.	.-.-.-	.-.-.-
2	..-.-.	..-.-.	..-.-.
3	...-.-.	...-.-.	...-.-.
4-.-.-.
5
6

7. Telegraph codes.



	MORSE.	CONTINENTAL.	BAIN.
7	— — — — .	— — — — .	— — — — .
8	— — — — .	— — — — .	— — — — .
9	— — — — .	— — — — .	— — — — .
0	— — — — .	— — — — .	— — — — .

PUNCTUATIONS, ETC.

	MORSE.	CONTINENTAL.	PHILLIPS.
. Period	.. — — — — — — .
: Colon	— — — — .	— — — — .	— — — — .
— Colon dash	— — — — .	— — — — .	— — — — .
; Semi colon	.. — — — .	— — — — .	.. — — — .
, Comma	.. — — — .	.. — — — .	.. — — — .
? Interrogation	— — — — .	— — — — .	— — — — .
! Exclamation	— — — — .	— — — — .	— — — — .
Fraction line	.	.	.
— Dash	—	—	—
- Hyphen	—	—	—
' Apostrophe	—	—	—
£ Pound Sterling	—	—	—
/ Shilling mark	—	—	—
\$ Dollars	—	—	—
d Pence	—	—	—
Capitalized letter	—	—	—
Colon	—	—	—
: "followed by	—	—	—
Quotation.	—	—	—
c cents	—	—	—
. Decimal point	—	—	—
¶ Paragraph	— — — —	— — — —	— — — —
Italics or	—	—	—
Underline	—	—	—
() Parenthesis	— — — —	— — — —	— — — —
[] Brackets	— — — —	— — — —	— — — —
" " Quotation marks	— — — —	— — — —	— — — —
Quotation within a Quotation	— — — —	— — — —	— — — —

SOME ABBREVIATIONS IN COMMON USE. Maver. 1892

Generally, telephone lines used dual copper wires for their connections. Telephone equipment also required different office equipment.

The change came slowly and incrementally by locale and business. Like telegraph, phone networks often started as smaller private affairs and grew by assimilation over time. Heavy nationwide use of telephone grew after World War I, but overlapped with telegraph usage until well past World War II. Most railroad telegraph offices silenced their telegraph keys permanently by the early 1960s.

As an aside, two-way radio was tried by railroads in the 1920s. CN set up an early telephone network in 1923. NYC experimented with radio in 1927-1929. Receivers were placed in some passenger trains as entertainment en-route. Early radio was used in large yards with local telephone huts scattered in the yard, and also for conductor-to-engineer communication on long freights.

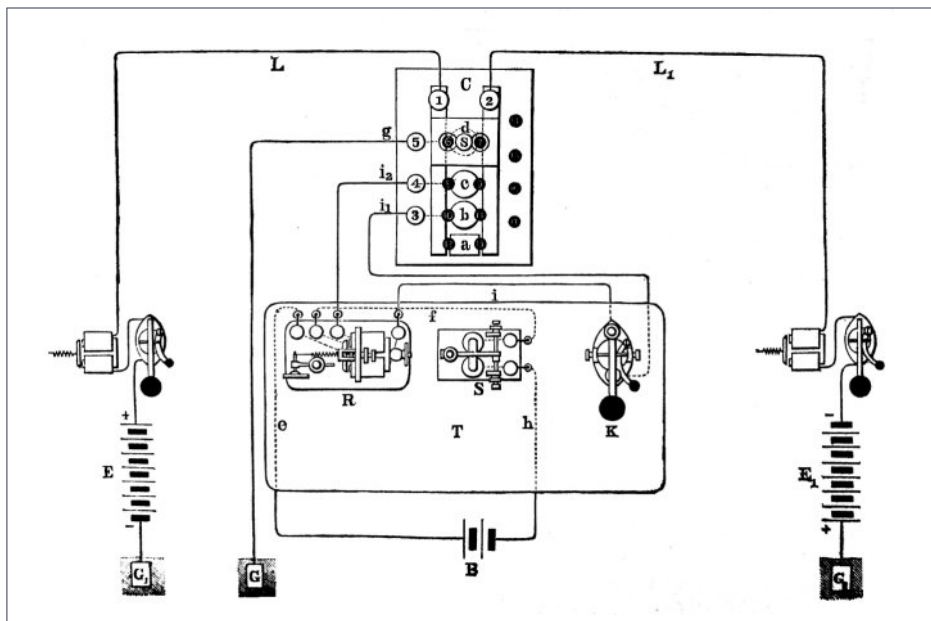
But this article is all about *telegraph* usage on American railroads. The basic setup for a small telegraph office is shown in [8].

The "L" and "L1" represent the telegraph lines between offices, usually single steel wires, ranging from #16 to #4. A new process for drawing copper wire appeared around 1880 that increased its tensile strength, and copper wire and copper-coated steel wire gradually replaced steel wire for telegraph lines. Wire was strung on poles from 25-120 feet tall placed 150-300 feet apart. Porcelain or glass insulators of varying sizes and colors were used.

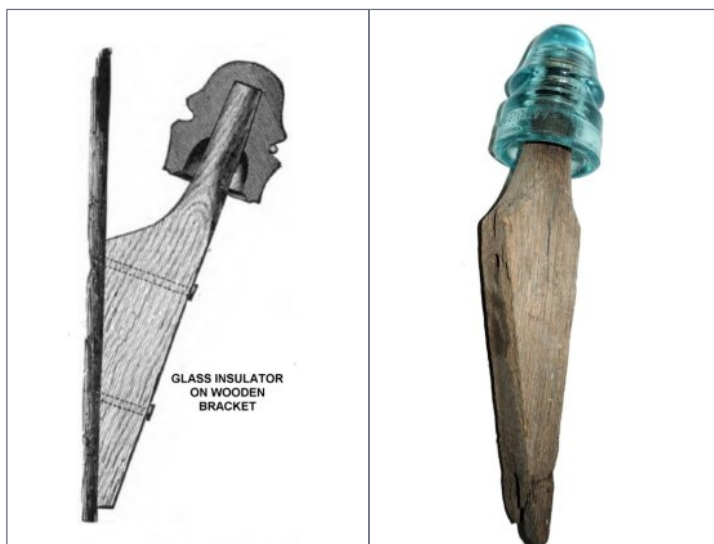
Glass insulators were produced in large quantities, and demand often outstripped supply sources. Insulator manufacturers (often located in large Eastern cities) resorted to recycling beer and wine bottles for raw material, generating a wide variety of insulator colors. Insulator variations are often sought after by modern collectors.

The long-distance telegraph wire came out of the office and care was taken to insulate the wire (galvanized steel) and to





8. Telegraph office diagram.



9. Typical single-line pole insulator and bracket.

protect against a "water path" to ground during storms. Wire was supposed to enter the building slanted downward so water would not follow the wire into the office.

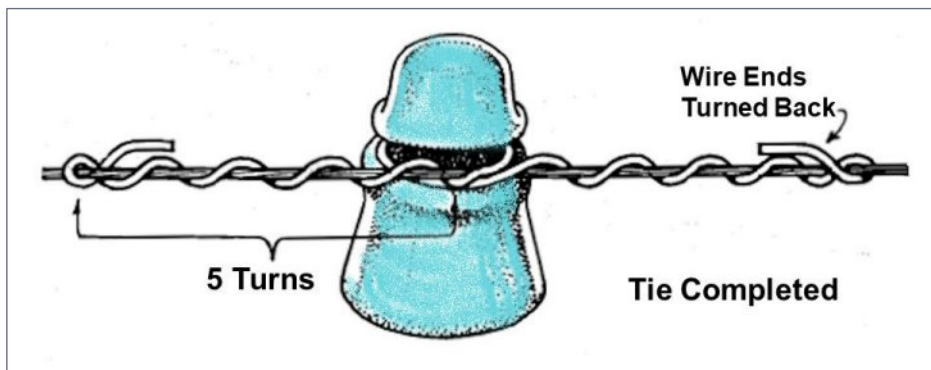
It was common to find single telegraph lines connecting offices and small stations on branch lines. Single-wire lines would be attached to wooden poles (and in some locations – trees!) with a side mount bracket and a line insulator. Usually these were made of glass, but glazed earthenware and rubber were also used.

A small point for modelers: telegraph wire was never wrapped around an insulator. It touched the indented side of the insulator, and a smaller tie wire was wrapped around it, then around the insulator, and finally around the wire on the opposite side. It's unlikely one would want to model the tie, but gluing the line wire to the side of the insulator would be prototypical [11, 12].



10. Line insulators.

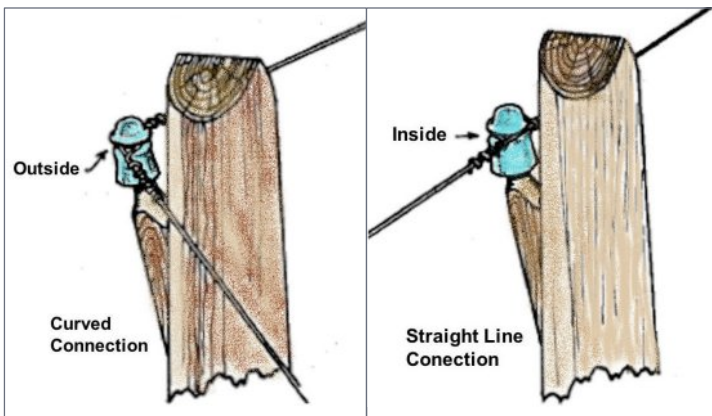




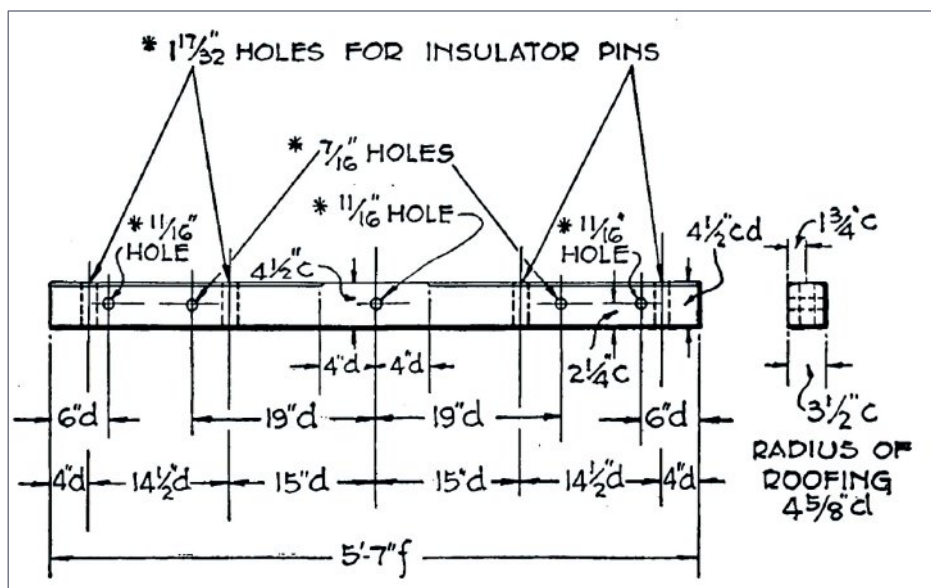
11. Diagram showing how telegraph wire was tied to a glass insulator.



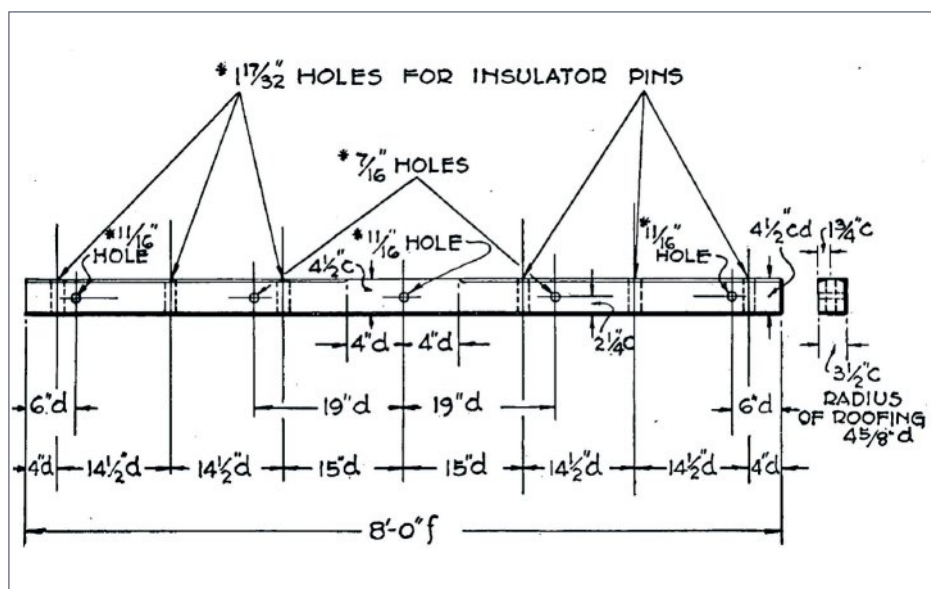
12. A wire tied to an insulator, similar to the diagram in [11].



13. Wire attachment to glass insulators.

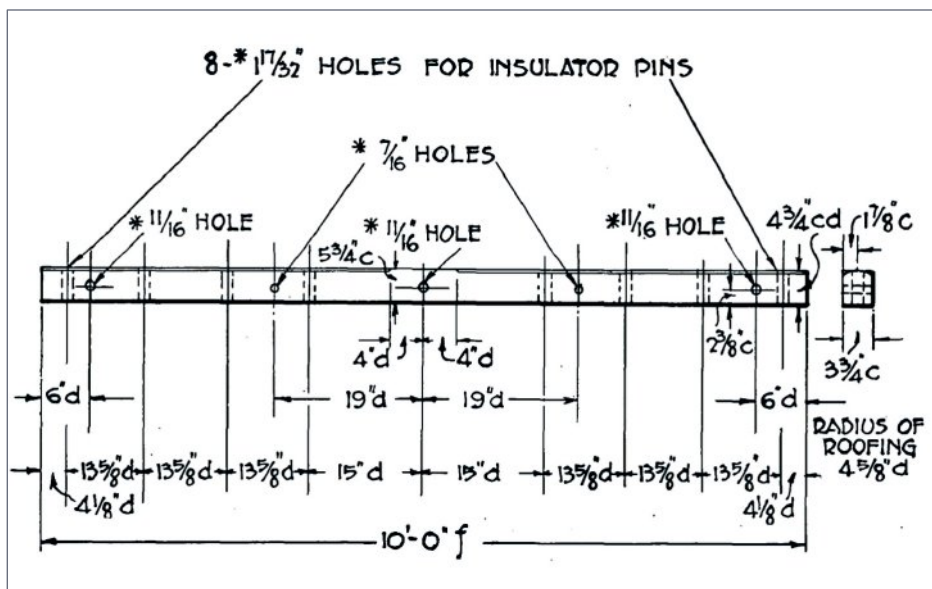


14. Four-pin crossarm.



15. Six-pin crossarm.





16. Eight-pin crossarm.

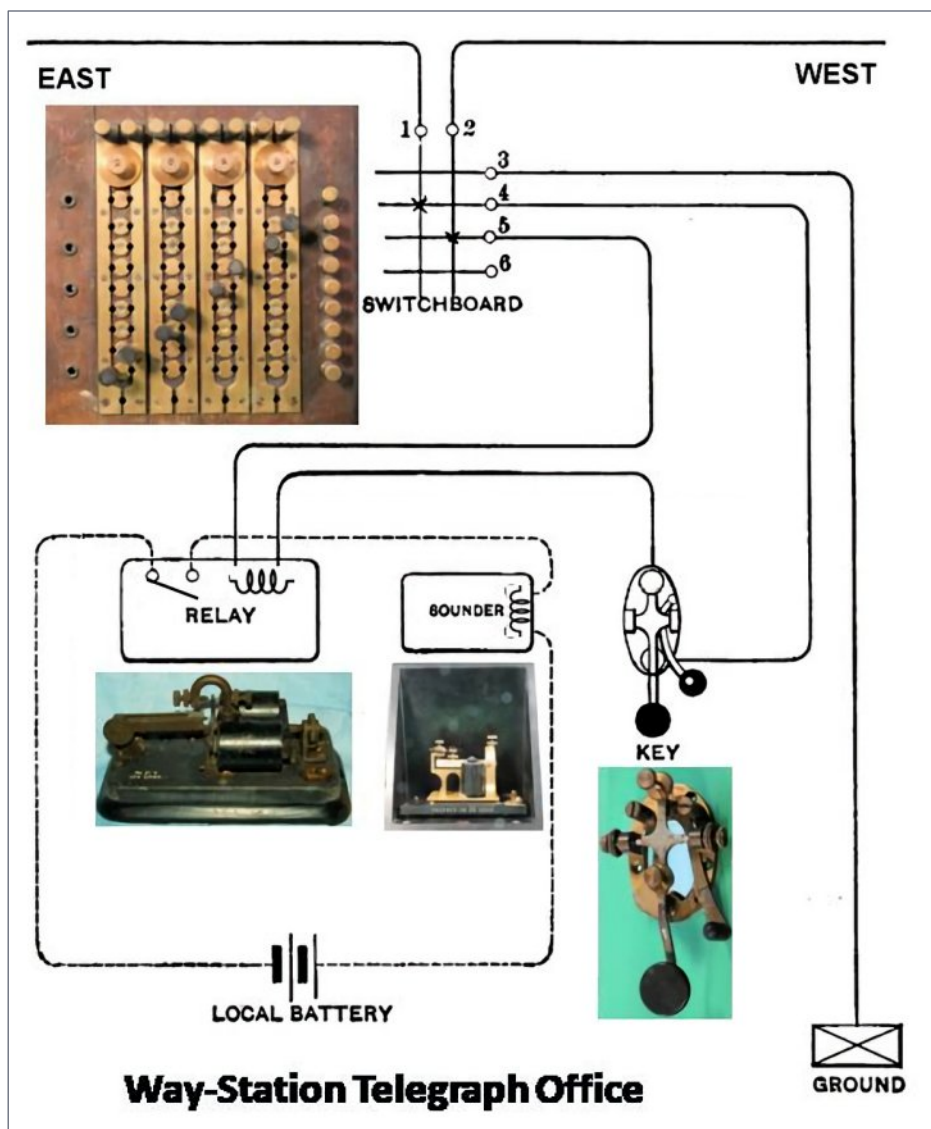
Telegraph pole configurations expanded to carry more and more lines. Prototype crossarm specifications are in the figures below.

Let's have a look at the basic instruments found in a small telegraph office.

The diagram in [17] shows one possible configuration for a telegraph office in a small station, or rail tower along the right-of-way. The typical office would be equipped with a small plug switchboard directly connected to the incoming lines, and equipped with lightning arrestors to protect the inside equipment [18].

The relay actuated a "sounder" powered by a small battery to generate the audible clicks representing the transmitted telegraph message.

Samuel Morse's original telegraph recorded the short and long clicks by marking a paper tape fed through a "telegraph



17. Telegraph office.

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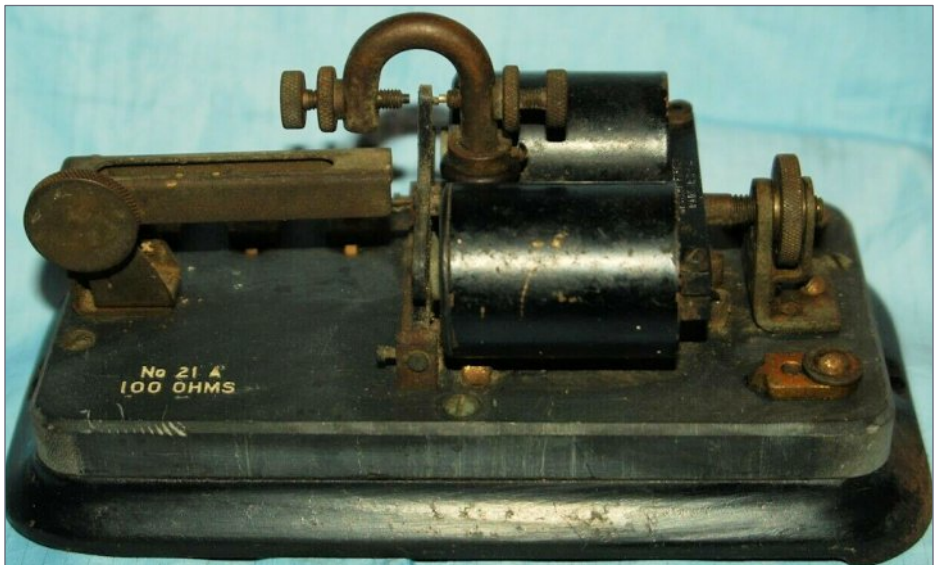
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18. Four-line telegraph switchboard.



19. Telegraph relay (single-pole single-throw).



20. Telegraph sounder in a resonator box.



21. Sounder in resonator, side view.



register” generating the original dots and dashes. It was found in short order that trained telegraphers could “hear” and interpret the message as it came in faster by ear with as much or more accuracy than one could read the paper tape. That quickly ended the use of the registers.

Operators used different techniques to more clearly hear the message clicks on the sounders. A sounder was often placed in a “resonator,” an open triangular half-box often depicted with the typical telegraph operator. The resonant sound was a bit louder and directed the sound toward the operator too [21].

Sometimes the operator would wedge a tobacco tin (often a Prince Albert can) behind the sounder in the resonator. By opening the top of the can at different angles, differing sounds could be produced. Operators working with more than one sounder on their desk could then differentiate which line was active, all by ear [22].



22. Western Electric telegraph sounder mounted in resonator.



To send a message, the telegraph operator would "open" his key with the pivoting lever on the base.

After the operator opened his key, he would tap out the message, which would include the telegraph station identification – typically a two-letter designation. The recipient of the message was included too. This should sound familiar to prototype modelers, as most stations, towers, dispatchers, and supervisors had two-letter abbreviations. These may well have originated with the telegraph ID.

Railroads had agreements with telegraph companies like Western Union and Postal Telegraph to handle personal public communication too. These were sent as lower-priority messages than official railroad traffic. These and other "public service" signs were regularly found right outside of the railroad telegraph office. A cleaned, printable selection of telegraph signs are included in the file, **Telegraph_Signs.pdf** in this article's [Bonus Downloads](#).



23. WE switch lever closed normal.

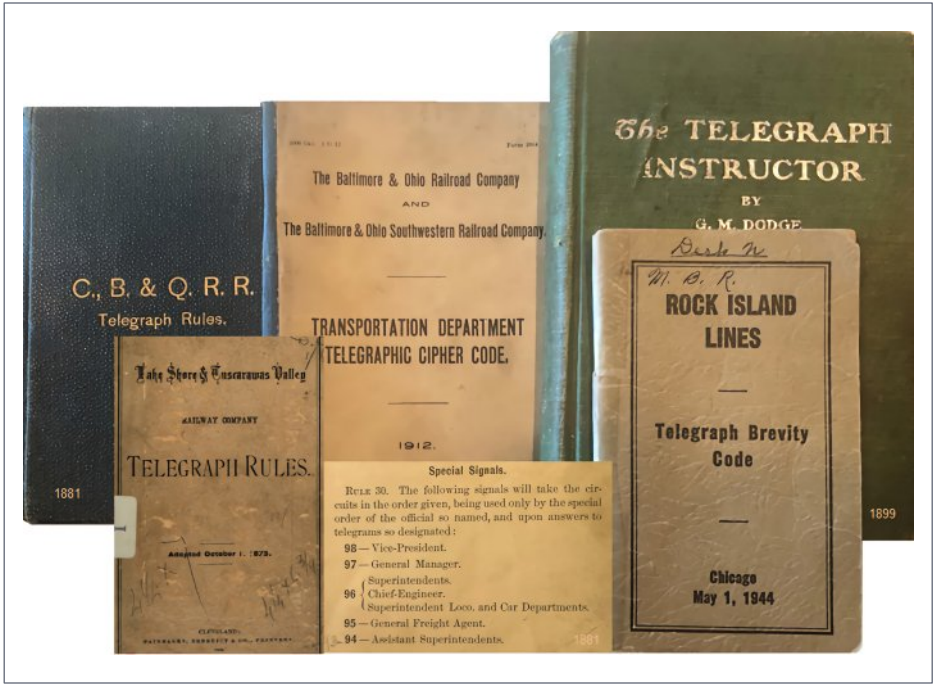




24. WE switch lever open, ready to transmit.

Telegraphers were trained to send messages in abbreviated forms, using standardized common abbreviations (like dep – departed, ar – arrived), using message numbers for entire messages (like msg #21 “happy anniversary,” etc.), and codes. Some codes were straightforward word- and phrase-substitutions from an official railroad company code book (a couple of which are in my personal collection) meant to hide messages from casual observation.

American Morse Code continued to be used by American railroads beyond the 1960s! Separate rule books for telegraphers were sometimes issued too. One that I have listed every rail company officer, division manager, and supervisor together with their two-letter ID and in priority order for transmission – dispatchers were high on the list, but Road President was number one.



25. Code books emphasizing brevity in transmission.

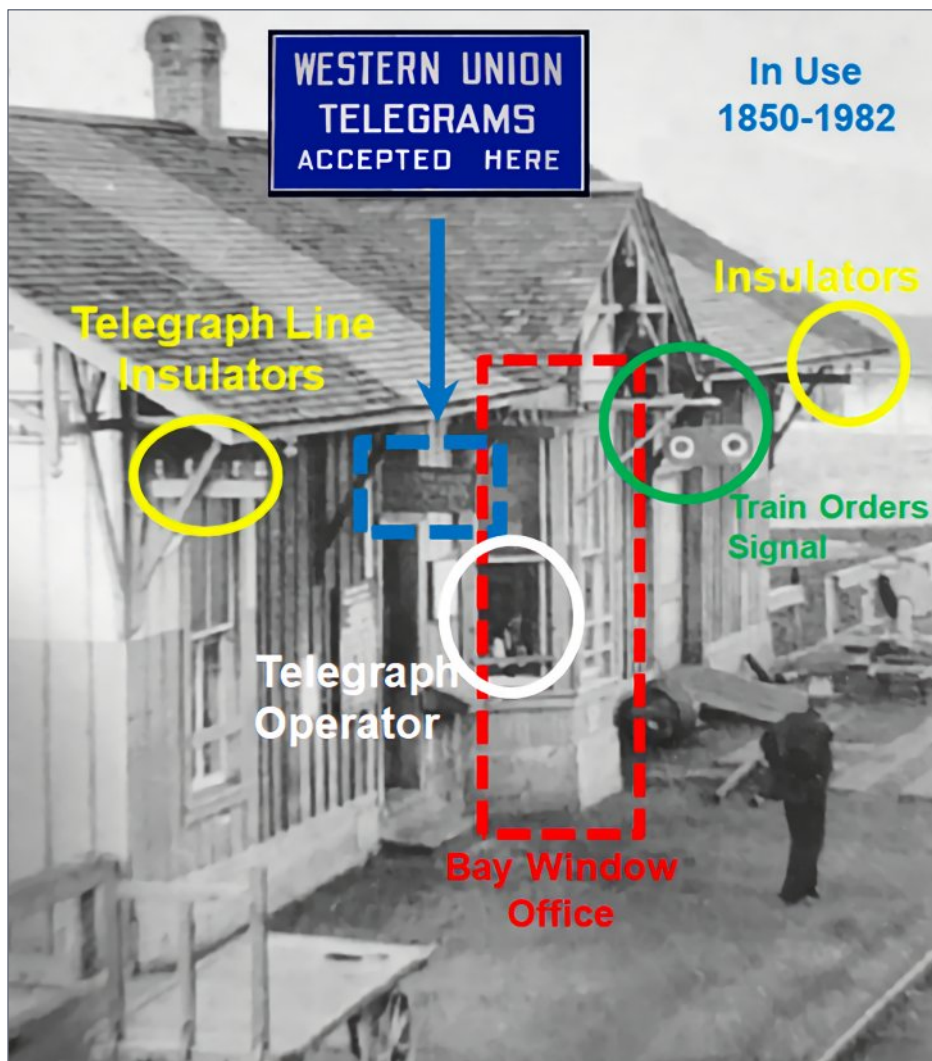
THE TELEGRAPH OFFICE

For many railroads, telegraph offices can assume an almost "standard" configuration. The telegrapher's job included delivering and passing train orders up and down the line. Visibility to the main line running past the office was essential, so telegraphers were often situated in a bay window with clear visibility.

Public access to the telegrapher was needed, so a waiting room was often built to one side, also allowing the building to act as a wayside station. The other side of the bay window would often connect to a storage room for batteries, railroad materials, and baggage of all sorts. Either of the adjacent rooms could be eliminated to create a compact shack just for the telegrapher, and the odd yardman or brakeman.



There have been several model structures with this configuration. My favorite was the NYC Palmyra Depot once made by New Creations Victorian Railroad Buildings (current status unknown). A detail often overlooked was the telegraph lines entering the building (often at both ends) with their associated insulators.



26. Typical telegraph office.



27. New Creations NYC Palmyra depot and telegraph office.

BUILDING A TELEGRAPH “OPERATOR” FOR YOUR MODEL RAILROAD

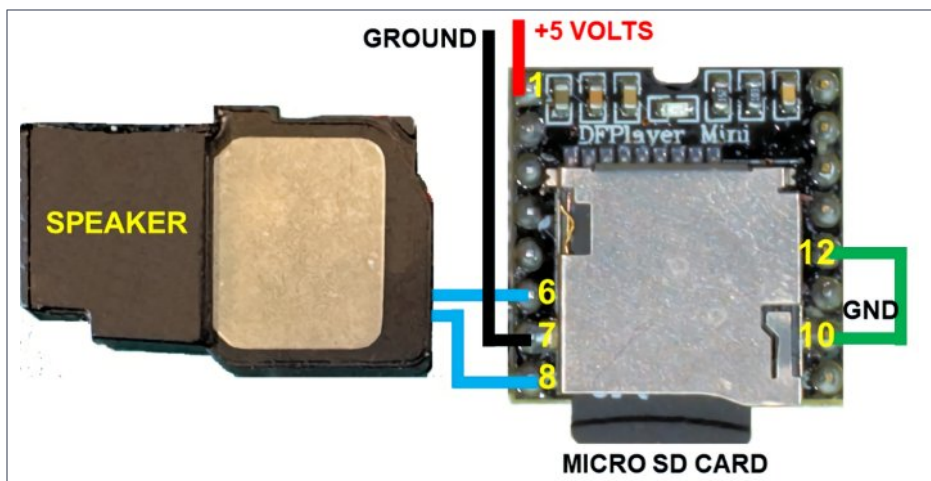
For my pike’s telegrapher, I built an animated telegraph simulator using the prototype sounder in my personal collection. I first encoded the American telegraph signals and worked on the timing to drive a Western Electric Sounder [20] using 12 volts switched via a modern relay and driven by an Arduino Uno.

With the sounder isolated from the Arduino and relay, I “sent” multiple copies of the alphabet, numerals, and punctuation marks via the sounder, and recorded the resultant clicks and bounces. Each audio clip was then edited for a single best recording and stored as MP3 tracks at best resolution. The resultant 49 audio tracks became my telegraph symbol library (letters, numerals, and special characters) for the telegraph simulators.

The simplest alternative uses a small, low cost DFPlayer module and a small 8-ohm speaker, like that shown in [28].

Once you wire the speaker to the DFPlayer, and connect pins 10 and 12, copy the file **Random_Tel_msgs30wpm.mp3** from the **Additional Materials/Arduino** folder to the root folder of the empty micro-SD card. With power turned off, insert the micro-SD card into the slot on the DFPlayer. Now, whenever you apply power to the DFPlayer, it will start playing a random set of





28. Simple telegraph sound module.

American Telegraph code messages, with appropriate pauses. The collection of messages runs for 2.5 minutes before repeating.

If you want to form your own messages, you can use the wiring in [29] to connect your DFPlayer to an Arduino Uno for more precise control. We start by placing the telegraph *symbol* library in the folder in **Additional Materials/Arduino/SD_Card_Audio** described above onto a micro-SD card. The resultant 49 audio clips which are named 0001.mp3 to 0049.mp3 and stored on a freshly re-formatted micro-SD card by copying the files **ONE AT A TIME** in numerical order to the root folder of the SD memory card.

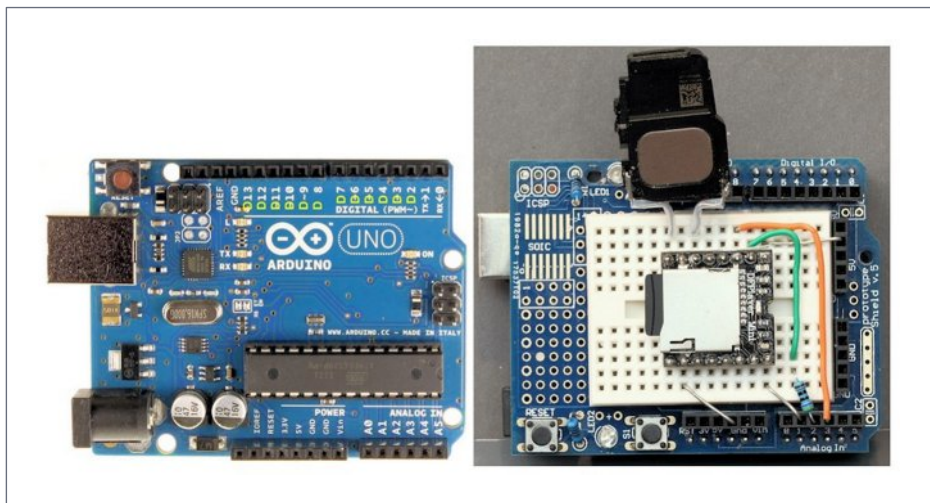
It turns out that the internal software of the DFPlayer card can select individual files on the micro-SD card but does so in the *file order in the file table* on the SD card and **NOT** by the file name. If you copy the mp3 tracks as a group from your PC to the SD card, you are not necessarily guaranteed what file order will be saved in the SD card file table.

[29] shows a DFPlayer Module connected to an Arduino UNO using a breadboard shield for point-to-point wire connections

with a small, cut-back iPhone 5 speaker. Any 1-3-watt, 8-ohm speaker will do. This is exactly the same arrangement described in **A modeler's introduction to the Arduino** in *Model Railroad Hobbyist*, December 2016 (mrhmag.com/magazine/2016-12-dec/online). That article and its additional materials also provide more information on the DFPlayer and detailed instructions on how to download the sketches or code to the Arduino UNO.

You can use other 8-ohm speakers for better sound quality, or even use the “stereo line out” signals from the DFPlayer and connect them to a stereo amplifier of your choice. The sound quality from the “line out” connections of the DFPlayer is near-CD quality. Take care powering the DFPlayer using the mono output. It has a 3 Watt amplifier, and with 5 volts power, it will need 600mA for maximum continuous volume – more than the UNO on board regulator can provide for both it and the DFPlayer.

Only insert or remove the DFPlayer micro-SD card when the power is **off**. You only need to connect +5 volts to DFPlayer pin 1, ground to DFPlayer pin 7 or 10, and Arduino pin A2 (D16) to



29. Arduino UNO and DFPlayer mp3 module mounted in UNO breadboard shield on an UNO.



DFPlayer pin 2 through a 1K, ¼-watt resistor. All other connections described in the *MRH* article cited before are not used. Your 8-ohm speaker connects to DFPlayer pins 6 and 8. "Stereo line out" from the DFPlayer is on pins 4 and 5.

DFPlayers and Arduino UNOs are available from many sources, including Digikey.com, DFRobot.com, Amazon.com and others. Be careful of buying near look-alike substitutes for the DFPlayer. Some eBay listings have been knock-offs of poor quality of late. Almost any Arduino can be used, including the ProMini, ProMicro, Mega2560, Nano, and many more. Neither memory size nor processor speeds are important here.

The sketch for your Arduino, the DFPlayer library, and the entire audio load for your micro-SD card can be downloaded from [here](#):

Place the folder **Telegraph** and its contents in your ...\\ folder.
Place the folder **DFRobotDFPlayerMini** and its contents in your ...\\ folder.

PERSONALIZING THE CODE

A few options have been provided in the **telegraph.ino** sketch for you to personalize your telegrapher, all of which are found near the start of **telegraph.ino**.

You can change the pin for the communication to the DFPlayer by changing *ONLY* the “16” (shown in **Red**) in the following statement to another digital pin on your Arduino; *DO NOT TOUCH* the “22” – it is a dummy designation that must remain.

```
SoftwareSerial DFSerial1(22,16); // UNO/PRO MINI TX serial
to DFPlayer via 1K resistor
```

The code below also has some editable portions in Red.

```
// The following sets the total time taken for a symbol
based on the length of the symbol for transmission
(symboldelay)
```

```
// and within a narrow margin can be used to change the
transmission speed up to the point of cutting off

// full length of the transmitted symbol

#define code_time 66 // 66

// The following line sets the time in milliseconds between
symbols (characters) sent in transmission

#define intercharacterdelay 69 // 69

// The following line sets the volume for the DFPlayer range
0-30 maximum

#define default_volume 27

// The nummessages byte has the maximum number of messages
you want included in the list to send

byte nummessages = 20;

// The following 2 variables define the range of time in
milliseconds between send all messages

int intermessagedelayLOW = 3000; // Lowest inter message
delay time 3 sec

int intermessagedelayHIGH = 12000; // Highest inter message
delay time 12 sec
```

A little further on you will find the 25 item message list. You can change the messages in **RED** to almost anything you want. Messages 1-18 are suggestions, with 19-25 just containing filler characters. If a character is not recognized, it will be ignored:

```
const char messages[]={*

"JT TR 26 Express Passing MP 151", // 1

"D4 TR 34 Take Siding Albany", // 2
```



"MS MOW Crew 4 Finished Milepost 255", // 3

"AR TR 33 Conductor Contact Dispatcher4", // 4

"SR TR 6 DEPARTING BROOKLYN 8:01 OT", // 5

"D2 TO MOW CREW 8 RELEASE BLOCK AT 14:20", // 6

"D5 TO DF TR LATE 23 MIN ADVISE GR", // 7

"GT RE MOW CREW 8 HOLD 20", // 8

"AZ TR 245 ARV WOOSTER 5:44", // 9

"ST TIME CHECK 8:00AM PST", // 10

"GR TEMP 72 DEGREES", // 11

"D3 SLOW ORDER MILEPOST 214 UNTIL 1800", // 12

"D8 ORDER 27 CANCELED", // 13

"EF TR 75 STOP AT DORIN", // 14

"AR CHECK D4 RE TR 12", // 15

"DF RETURN CREW 3", // 16

"S5 TR 46 ETA 5:33", // 17

"DF GB TR 29 RUNNING 5 MIN EARLY ETA 11:22", //18

"A A A A A A A A A A A A A A", // 19

"B B B B B B B B B B B B B B", // 20

"C C C C C C C C C C C C C C", // 21

"D D D D D D D D D D D D D D", // 22

"ABCDEFGHJ KLMNOPQRSTUVWXYZ", // 23

"0123456789", // 24

"abcdefghijklmnopqrstuvwxyz"}; // 25

You can also change the total number of messages or curtail the list by changing **nummessages** described above.

You can also use the serial connection to the Arduino via the USB port to type in any message you want. It will transmit your typed message as soon as the line becomes clear of any other message.

Since this sketch also uses the SoftwareSerial library, you could also set it up to connect to a digital (TTL) serial line for your own message traffic.

Last, you will find some code in **loop()** that can be modified. The default setup is to send All messages. Comment the last line and uncomment the **RED** line to instead send a random number of messages.

```
// UNCOMMENT ONE of the following lines to  
select which sending option you want:
```

```
// Uncomment the following line for a random  
selection of messages from the message list  
above
```

```
// up to and including the nummessages count  
of messages
```

```
// working= messages[ random (0, nummessages)  
];
```

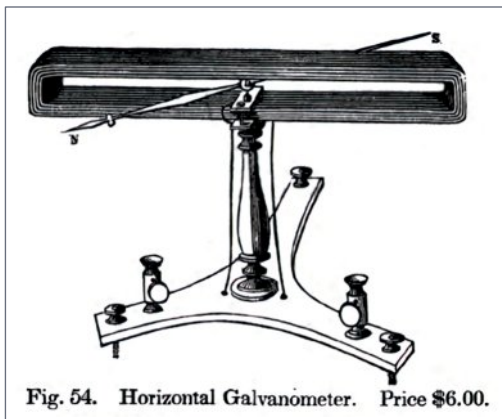
```
// Comment the following line instead to turn  
off incremental sending of ALL messages in  
list order
```

```
working= messages[i];
```

A MODEL RAILROADING SURPRISE

Much of the information presented here was extracted from telegraph books over 100 years old. While studying the *Book of the Telegraph* by Daniel Davis, published in 1851, I discovered

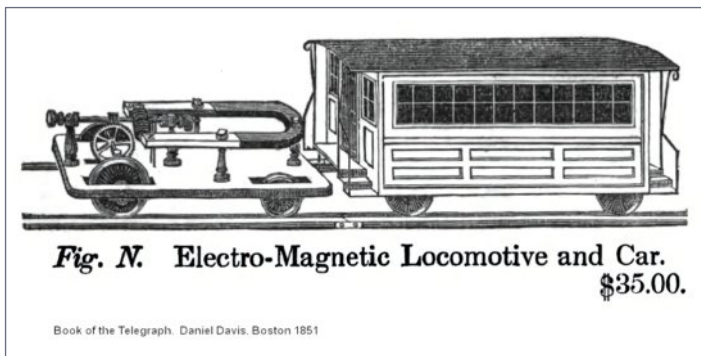




30. Early galvanometer.



31. Early motor.



32. Early motorized loco and car.

that many old technical texts back then included commercial instrument and equipment catalogs at the back. Among the many interesting items listed for purchase were early galvanometers (for small electric current measurements), and primitive motors, similar to ones I remember building from a kit as a boy.

Then, amazingly, as I turned another page, an “*Electro-Magnetic Locomotive and Car*” appeared for the princely sum of \$35.00 (about \$1400 in today's currency). Apparently, there is some indication we might consider Michael Faraday the *father of modern motorized model railroading*!

Have fun. ☑

See this month's [Bonus Extras](#) to get all the files for this project.

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DR. GEOFF BUNZA



Geoff started modeling when he received a Mantua train set for Christmas, at age 6. He fed his interests through college, becoming a member of the Tech Model Railroad Club (TMRC) at MIT while getting his doctorate and three other degrees in Electrical Engineering.

He models the New York Central Railroad, the Great Northern Railway, and Maine narrow gauge in HOn30. Scale model animation in HO is one of his great interests.

Geoff has authored numerous articles on animation for various magazines, and has presented clinics at many conventions. He is blessed with his wife, Lin, in marriage for 46 years and their two terrific sons. ■



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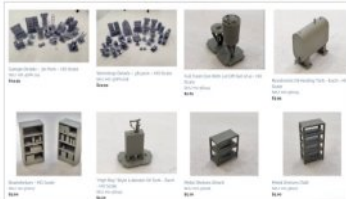
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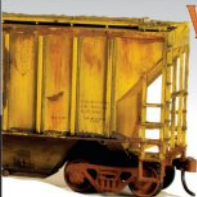
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The Tiburon rail yard layout



PHIL CASSOU AND GARY LAVARACK SHOW US A
LAYOUT DEPICTING OPERATIONS IN TIBURON IN 1909 ...



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THE TIBURON RAILROAD & FERRY DEPOT MUSEUM OPENED IN MAY 1999 in the former San Francisco & North Pacific Railroad Depot, also known as the Peter Donahue Building. At that time, the displays were mainly historical photographs of the town of Tiburon and the rail yard. Museum architect Tom Schneider's plans called for a large model of the rail yard as the central exhibit of the first floor. To announce the coming model, a 16 x 26-foot outline was placed



1. A railcar repair shop and freight yard stretch out as number 109 rolls by with some passenger cars in tow. A distinctive orange “gallows frame” ferry slip is just visible in the far background.



in yellow tape on the floor of the large open area. A sign on an easel proclaimed that “there will be a model here.”

RESEARCH: BUILDING ON HISTORICAL FOUNDATIONS

The project was a large undertaking, but we had good starting points. Research with the Landmarks Archives, the Northwestern Pacific Railroad Historical Society, rail yard plans dated October 1909, Sanborn fire-protection map, and topographical charts all helped specify the layout of the Tiburon yard.

Extensive photographs from our archives brought the structures and scenery to life. The NWP consolidated its passenger operations in Sausalito at the end of 1909. This was the height of both passenger and freight operations in Tiburon.

PLANNING THE LAYOUT

Armed with this basic information, we determined an HO scale model in the allotted space would cover about a half-mile of the NWP property, from just past Beach Road to the end of Shoreline Park. This would offer a complete view of the yard, and about half of Main Street.

This model would have not only the rail yard but also several ferry slips and docks to show the railroad and nautical aspects of this transportation hub. The Donahue Building is one of only three dual-use depots still in existence in the U.S. The other two are in Manhattan, NY and Hoboken, NJ.

The model also needed trains that moved to show visitors how the yard operated.

BUILDING THE FRAMEWORK

We started to build the support framework in 2000. Angle iron bolted together in box sections formed the base. Petaluma

THE TIBURON RAIL YARD LAYOUT | 5

Powder Coating removed the shiny plating, and covered the metal with a steam-engine-black coating. There is no vertical bracing, so that the support looks very open.

Double-bolting all joints made the structure strong and rigid. After finishing the base, we discovered it had to be moved a few feet to provide clearance for visitors. With one person at each end, 26 feet apart, we moved it like it was an airplane wing, it was so rigid. A team including Roger Felton, Frank Buscher, and Mike Dubisky took up wrenches and got everything connected.



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We set the height of the model top to be in line with ADA (Americans with Disabilities Act) guidelines.

CREATING THE LAYOUT BASE

The next step was to set the wooden base for the display. We used half-inch plywood over 1x6 and 1x8 wood stringers in a configuration like the sub-floor of a house. This provided a solid surface that you could walk on.



On top of the plywood, we added thin balsa wood to dampen noise from the running model trains. Making scenery to match the topographical maps entailed gluing layers of roofing foam for hills and the shoreline.

Shaping of the foam to the appropriate elevation was accomplished using the curved end of a grapefruit knife.

2. The roundhouse, a machine shop, and a back shop repair complex dominate the background. The end of the paint shop is in the foreground at right.



LAYING THE TRACK

As the surface was ready for tracks, the 1909 plans were expanded to H0 scale and laid on the wood. We placed the tracks exactly on the paper, slid the paper out, and firmly attached the tracks using 3/8-inch rail spikes. There are over 2,800 tiny rail spikes holding the rails.

For the long straight runs, such as the mainline and the Schooner Pier, we used a laser to align the tracks to be



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absolutely true. As with any rail yard, there are many turnouts. This model has 33 commercially made turnouts, many of which were modified to match the 1909 plans.

THE “GHOST TOWN” PREVIEW

To provide our visitors with a view of how the diorama would look, Pete Kane constructed over 30 concept structures in white cardboard. This “ghost town” showed the approximate size and placement for each final structure.



Actual scale models replaced each cardboard mockup as model builders brought their completed structures to the museum.

BUILDING THE BOAT FLEET

As work proceeded on the rails and buildings, Stuart Purvis built our fleet of boats. He once professionally built full-size wooden boats in the Philippines and Hong Kong.

3. The passenger terminal with its distinctive passenger shed covers three tracks. Behind that is the depot building, and a passenger ferry slip. At far right is a railcar ferry.



4. The quiet downtown of Tiburon with railroad worker housing in white sits at top. Locomotive 153 switches the yard in the background.



5. The freight ferry slip, complete with its gallows frame and apron, stands dramatically against a hill freshly carved from roofing foam.



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Using boat plans sent by the Smithsonian, he first built the small ferry, *Marin*, which shuttled between Sausalito, Belvedere and Tiburon.

Then he turned to the larger Northwestern Pacific ferries: the *Ukiah*, *James M. Donahue* and *Tiburon*. He also constructed the ocean-going Willapa freighter and a steam tug boat. His model of the PS China is displayed at Landmarks' China Cabin site.

John Ferguson, who helped with construction of the *Matthew Turner schooner*, built the car float, *Lagunitas*, to complete the fleet. These models are tied up at the slips and Schooner Pier on the model.

CONSTRUCTING THE WATERFRONT

To accommodate our fleet, several slips and the Schooner Pier were built. Joe Kelly built the Schooner Pier, some 600 feet long in real life. His attention to detail made sure every piling was represented.

Pete Kane built the large passenger and freight pier with a slip for passenger ferries. The original pier had 1,280 pilings supporting it. He also built the freight slip with the movable apron in which the *Ukiah* is moored.

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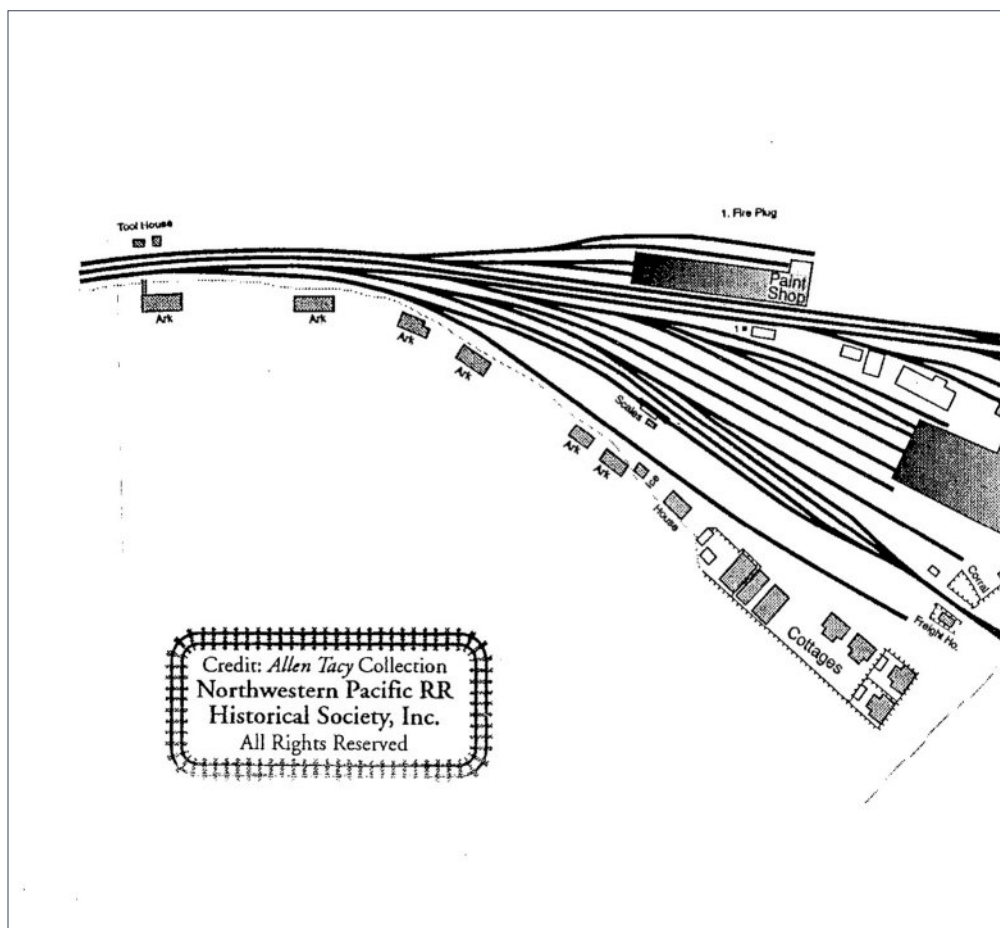


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THE BUILDINGS

A group of modelers built the layout's 40+ structures. Each structure was researched with maps and photos for accuracy, including architectural details and paint schemes.



6. This is a 1909 map of the area we're modeling.



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To help pay for the construction of the model, each building was offered for sponsorship by groups or individuals. A total of 40 sponsors are shown on a wall display next to the docent desk.

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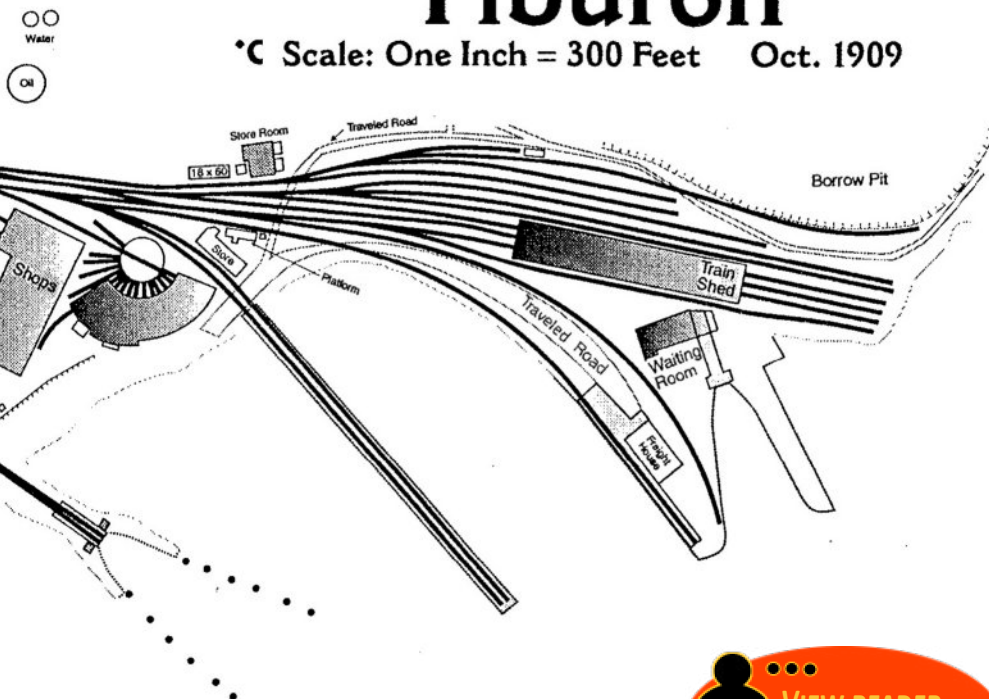
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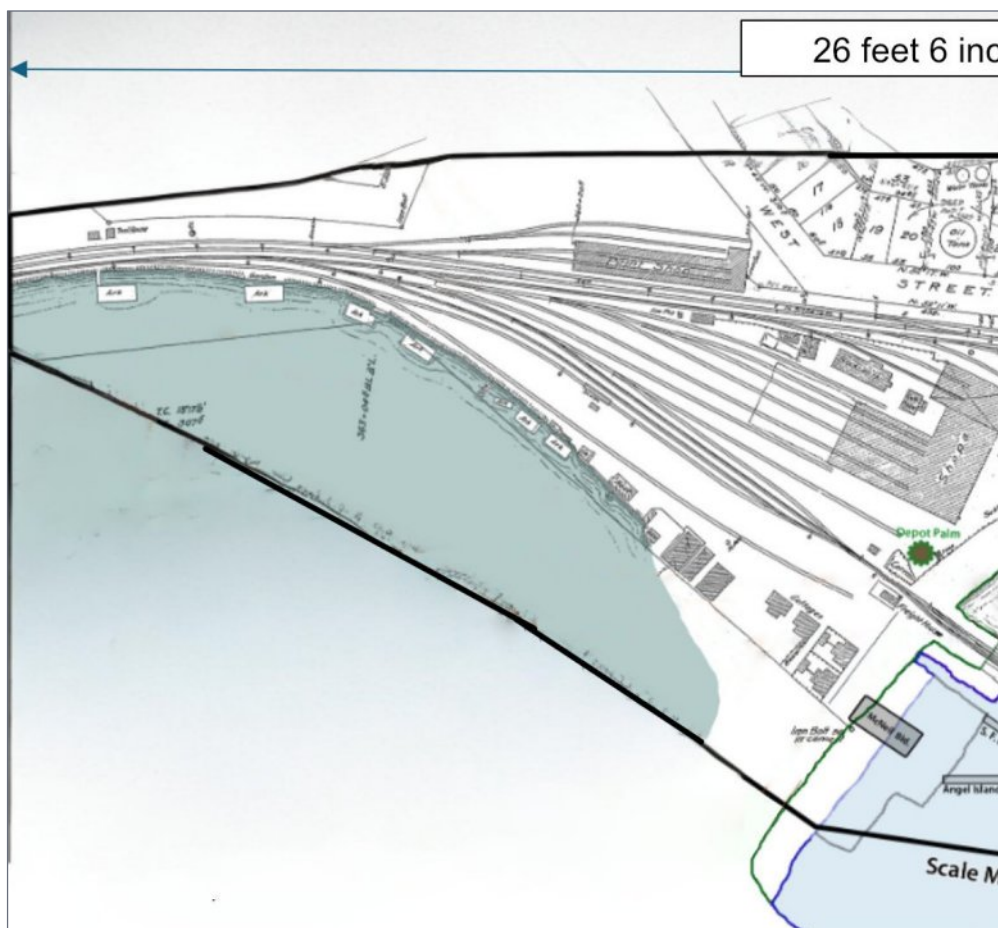
Northwestern Pacific RR Co.

Tiburon

Scale: One Inch = 300 Feet Oct. 1909



VIEW READER COMMENTS



Museum Main Room: 40 Feet by 26 feet

Bold black line is outline of model.

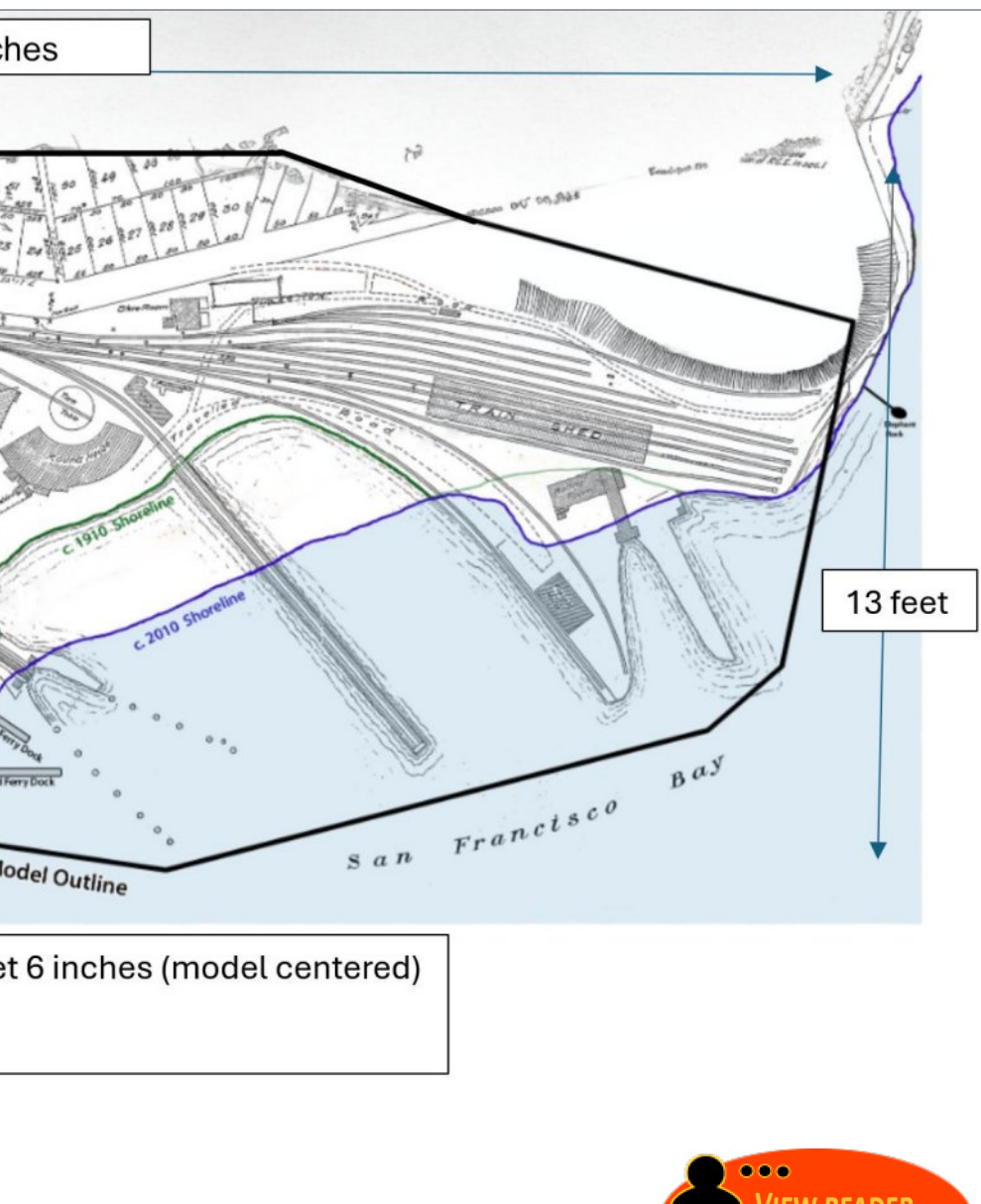
7. Here is a plan of the layout with the benchwork edges shown, developed from a period map of the area. We're modeling to HO scale with minimal selective compression.



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SCENERY AND LANDSCAPE DETAILS

Scenery is an essential part of the model. We used topographical maps to match elevations of hills and shorelines. The rocks in the hillside come from the actual bluff that was used to create the landfill for the rail yard.

We applied *Durham's Water Putty* over the hills and shoreline to provide a base for the scenery. We used dirt from the garden around the depot building to cover the hillsides. We heated it in an oven for a half an hour to remove any microbes before spreading it.

True to the actual site, there are very few trees on the hills. In a moment of artistic history, we installed the Heritage Palm made by Dan and Armando Vargas (not in place until 1920) at the end of Main Street location.



8. Clear epoxy lagoon water has just been poured, creating a reflective surface, with railroad worker housing nestled in the background.





9. Fencing is temporarily laid out along Mar West Street, with a fuel oil tank just over the ridge in the distance.



10. The hillside at the back of the layout takes shape, featuring a fuel oil tank and some eventual fencing along Mar West Street.

CREATING REALISTIC WATER

The lagoon water and bay water area, both half-an-inch deep, were special challenges that took almost a year to perfect. The lagoon is made of two-part clear epoxy. The details of sand bars, seaweed and other features, were put in place before pouring the surface, and you can see them in the plastic water.

We painted the features you would see on the bay, mainly clouds and kelp patches. We used clear-drying Mod Podge to texture the bay water to reflect afternoon light wind and wave action.

When you look across the model and out the window to the actual bay, they look almost identical.

OPERATING TRAINS

We have four special trains operating:

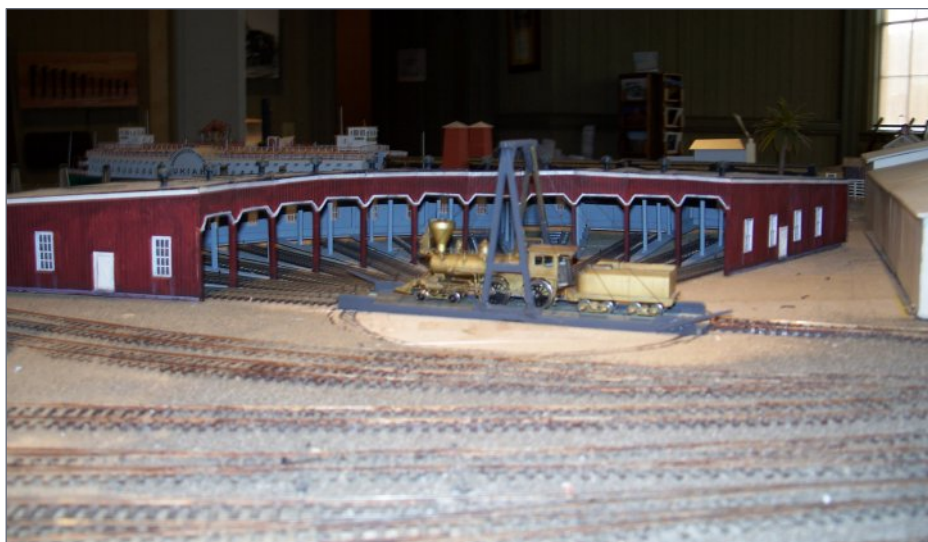
- **The Passenger Line** with its 1905 Pullman cars (the most popular)
- **The Gallows Line** loading freight cars on the ferryboat *Ukiah*
- **The Freight Pier Line** running on the Schooner Pier
- **The Quarry Line** work train hauling large rocks

Phil Maslin makes sure the engines match the NWP roster for 1909, with the appropriate oil bunker on the tender and the correct engine number on the cab. Each engine has an electronic chip and speaker to bring realistic sounds and actions to the model. Phil keeps the engines running, diagnosing and fixing any problems.

COMPLETION AND VISITOR RESPONSE

In the beginning of 2019, the final three houses on the hill on Mar West Street were placed, completing the diorama part of the model. From 2000 to 2019, work progressed steadily, with attention to historical accuracy.





11. The roundhouse is carefully positioned before the turntable pit is cut into the tabletop.



12. Here blue foam is being glued and carved into a hillside land form at the back of the layout.

THE TIBURON RAIL YARD LAYOUT | 19

Now there is a three-dimensional view of the Tiburon Rail yard in October of 1909 for our visitors to enjoy.

THE MODEL BUILDERS



Here are the modelers who worked on the rail yard model: Dan Swearingen; Dan and Armando Vargas; Tom Schneider; Pete Kane; Dewey Livingston; John Buckle; Phil Gale; Stuart Purvis; zed Designs (Megan Werner); Fred Schowalter; Miles Elbert; Joe Kelly; John Ferguson; Phil Maslin, and Phil Cassou.

Phil Cassou wrote this article for *MRH*.



Gary Lavarack, a docent (tour guide) at the Railroad & Ferry Depot Museum in Tiburon, provided the photography for this article on the rail yard model. ☑

Editorial note: The remaining photos are flash-camera snapshots taken just as layout construction started. Even though they're somewhat dark, these photos do give you some idea of how the layout went together.

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13. Benchwork supported by black angle iron creates a solid foundation for the 1x8 joists and half-inch plywood tabletop.



14. The black angle iron support frame, 1x8's and half-inch plywood provide layout support, with a mockup of the railroad paint shop (two doorways) and other structures visible in the background.



15. A freight ferry slip showcases the ferry Ukiah docked alongside mockups of family duplex housing in the foreground.



16. Temporary railroad worker housing mockups stand along the track, with the lagoon base carefully prepared in the foreground. Doubled 1x6 joists rest on the black angle iron frame underneath for support.





17. Lead tracks for the rail yard have been laid, with temporary white cardboard building mockups hinting at the future layout.



18. The passenger shed is in place, with storage tracks being methodically laid to the right, while a large, unfinished hill awaits further development in the background.

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Who's who in model railroading

A tribute to individuals and companies who
have influenced the model railroading hobby

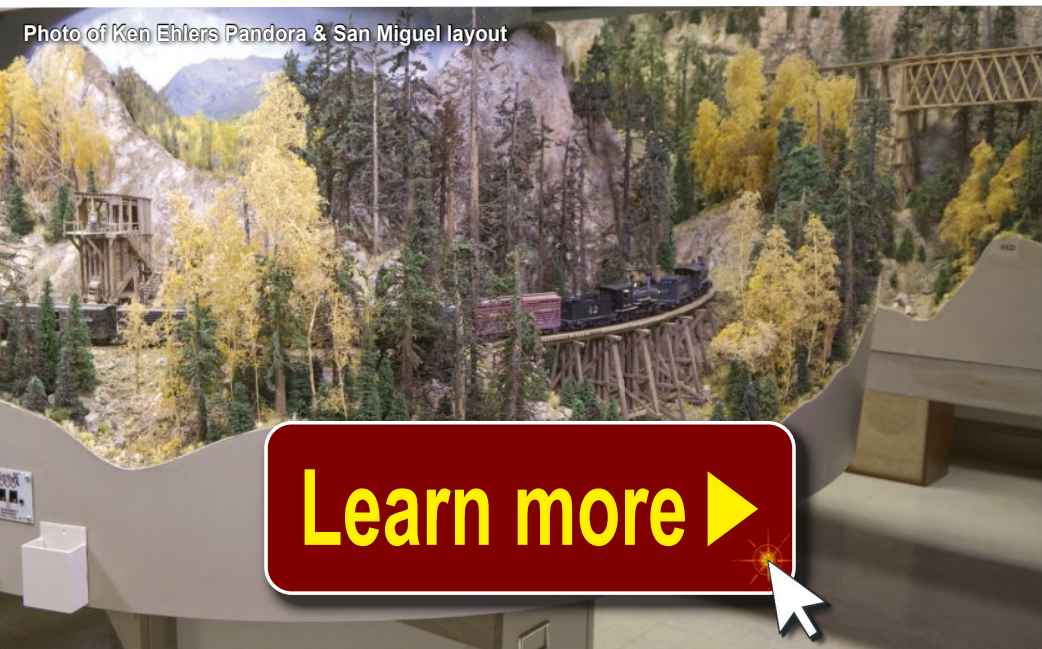
RICHARD H. BALE



Charlie Getz, past president of the National Model Railroading Association ...

"Richard Bale's monumental *Who's Who* should appeal to anyone who cares and is curious about the hobby and its history. There is an amazing amount of information about many pioneers who shaped and created the hobby of scale model railroading we enjoy today. Even if you do not think you need to know about them, you will be fascinated by the stories and connections of these individuals and the products and features we know and use. This book is a monument to some truly great people who are responsible for what we have today."

Photo of Ken Ehlers Pandora & San Miguel layout



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Your next desktop video camera



1. All the presenters' tables at the 2023 Texas Express NMRA Convention were equipped with a camera rig like this one.

Model Railroad Hobbyist | December 2025

JEFF PALMER REPLICATES THE PROFESSIONAL DESKTOP CAMERA RIG USED IN PRESENTATIONS AT THE **2023 NMRA CONVENTION...**

AS I APPROACHED THE TABLE TO PRESENT A CLINIC AT the 2023 Texas Express NMRA Convention, I noticed the desktop camera rig designed to show what is being done on the desk. It was a simple, well-designed setup with the look and feel of a professional system. Its positionable camera and light panel gave it great flexibility and infinite adjustability.

Traditionally, a document-style camera was used, which offered a limited working height of 8-12" [2]. This new setup had a high-

definition, distortion-free camera with ample space to work beneath it. The camera could be set to any height, with zoom and focus capabilities to cover a large work area [3]. This made it just as easy to work on N scale structures as on G scale.



2. I had been accustomed to using document cameras like this one for presentations. They had severe limitation in height and area of coverage.



3. The rig featured a highly capable MOKOSE Mini SD camera with manual zoom and focus. Western Audio Works is Brooks Willis's AV company, which supplied the equipment.



The rig's built-in light panel provided good lighting for the entire work area, and was adjustable both in color temperature and brightness [3]. I was a full 30 minutes early for my presentation, and since I was first on the agenda, I used that time to explore the "hands-on rig" sitting in front of me.

After my clinic, I went looking for Brooks Willig, the Audio-Visual chairperson for the 2023 Texas Express NMRA Convention. Brooks is also the chairperson for NMRA Lone Star Region Division 5. Even better, I list him among my friends.

I asked Brooks where I could get the desktop camera rig like those he set up in the clinic rooms. I thought it would be useful for Zoom



4. The back of the rig's Viltrox 116 T light panel has a knob to adjust color temperature and brightness. Here, the light is set to 5600 K – a bluish-white mimicking afternoon sunlight – and 39% brightness.

presentations like NMRAx. He told me he built it from readily available equipment (see the included shopping list).

THE STRUCTURE

The JEBUTU Overhead Camera Mount Desk Stand forms the basis for the structure [5]. The kit's major components include a C-clamp desk mount, a telescoping desktop stand leg, a holding arm, and a cell phone mount [6]. We won't use the phone holder for this project, but the boom arm will hold the light source.

The top and bottom surfaces of the C-clamp are rubberized to provide a better grip and to help prevent marring the table surface. Install the desktop stand leg to the C-clamp [7].

Next, take out the holding arm adapter and the holding arm, unscrew one end of the adapter, insert the holding arm into that slot, and



5. The JEBUTU Overhead Camera Mount Desk Stand. *Manufacturer photo*



Package Content



Holding Arm



Desktop Stand



User Manual



Holding Arm Adapter



Phone Holder



C-Clamp



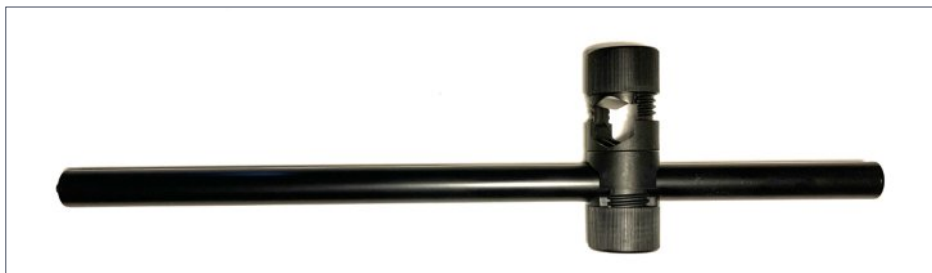
360° Rotation Ball Head

6. JEBUTU package contents. *Manufacturer photo*



7. The C-clamp has been assembled to the leg.

tighten [8]. Loosen the other end of the adapter and slide it onto the desktop stand's leg I extended the leg about three inches, attached the boom, and tightened the lock mechanism. With this assembly, the base is done [9].



8. The holding arm assembly.



9. The overhead desktop stand kit is complete.



The next portion of the assembly is the SMALLRIG Magic Arm and crab claw clamp. Unscrew the cold shoe from the arm, making sure not to lose the O-ring, as you will need it for installing the camera [10]. Screw the arm into the "crab" clamp.

Attach the clamp to the desktop stand, and tighten the T-nut. This completes the rig structure. Next step is adding the camera and the light [11].



10. SMALLRIG arm and crab claw clamp assembly with the camera cold shoe removed.



11. The camera stand's structure is complete, and ready to be clamped to the desk.

ADDING LIGHT

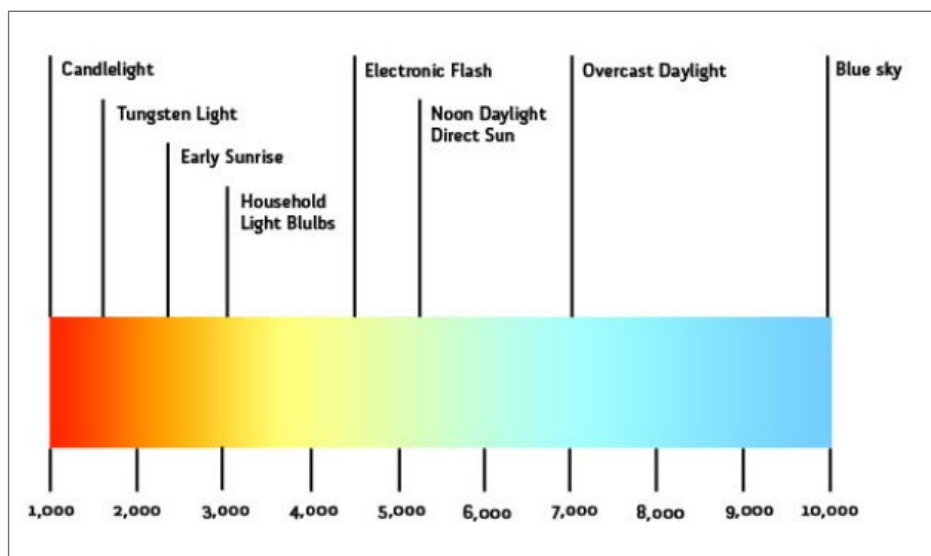
The light source was a Viltrox L116T panel, with controls to set the color temperature between warm white incandescent at 3300K and sunny (bluish) white at 5600K [12]. You also can set the brightness from 0-100%.

The Viltrox I ordered came with a 12-volt DC, 2-amp power supply. For mobile applications, the Viltrox can be powered using a battery pack and charger, sold separately [13].

The Viltrox L116T has a standard cold shoe adapter. Use the adapter to attach the light to the end of the boom arm, and tighten the thumb lock nut to secure it. The adjustment knob on the side of the shoe adapter allows positioning the light.

THE CAMERA

The original camera was a MOKOSE Mini SDI Camera with a 3.6mm HD no-distortion lens and an 8-megapixel image sensor [3]. While a



12. The Kelvin scale for whiteness temperature.



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great camera, it requires an SDI (Serial Digital Interface)-to-HDMI (High-Definition Multimedia Interface) converter to be compatible with most monitors or projectors.

I went looking for a version of this camera with an HDMI interface. I found the MOKOSE HDMI Camera, HD 1080P 60FPS with 3.2mm no-distortion HD Lens and 8-megapixel image sensor[14]. So for no loss in camera resolution or clarity, we gain a simpler interface. Both cameras come with 12VDC power adapters.

Use the socket on the HDMI side of the camera to screw mount the camera to the desktop stand's camera arm, and tighten the thumb



13. The back of the lighting panel has an on/off switch, a battery bay, and a control panel to set the brightness and color temperature. Here it is set to 4400 K, which provides the hue of a photo flash.

lock wheel to secure it. This completes the desktop camera rig [15]. The next steps are wiring and testing.

THE HOOKUP

Wiring the light panel and the camera requires two power outlets. I found it helpful to plug both into a common power strip, allowing me to conveniently turn both on and off with one switch.



14. This MOKOSE camera features an HDMI interface. The mounting socket is on top. *Manufacturer photo*



15. The completed rig assembly.



Connect power to the Viltrox L116T first, and flip the panel's on/off switch to test the connection. If connected properly, the LED display should light up and display the color temperature and the intensity settings.

Next, plug the 12VDC power cord into the DC 12V socket on the back of the camera. A red LED should light on the back of the camera to indicate it is receiving power. Connect the camera to a monitor or TV for viewing using an HDMI cable. Rotate the front ring of the camera to focus. At this point, the desktop stand is assembled and ready for work.

CAPTURING VIDEO

The setup we have now allows the camera to transmit to any HDMI-equipped monitor, television, or projector. If you want to connect the camera to your computer to stream or capture video, you'll need an adapter, since most computers are not equipped to accept an HDMI signal.

I chose the HDMI Video Capture card. The USB port on one end plugs into my computer, while the other end has an HDMI socket [16]. This device can capture video files, and save them in the Download folder on your computer, or wherever you designate them to go. The card also makes the camera useful for streaming, and provides links to OBS Studio.



16. HDMI video capture adapter. *Manufacturer photo*





J. Regier

CONSIDERATIONS IN CHOOSING A CAMERA

The overhead desktop camera rigs used at the NMRA convention were designed specifically for live presentations in front of in-person audiences. They provide a camera feed to the projection system, and did it well. Jeff's recommended substitution of an HDMI version of the camera promises an easier interface, but as he notes, most computers don't have HDMI input ports.

For effective streaming presentations or creating video content for YouTube or similar services, we really need a USB feed that the computer will accept as it would a webcam. MOKOSE also offers a USB version of their camera, with the same distortion-free lens, the same 8-megapixel sensor, and the same zoom and focus capabilities of the others.

This version would eliminate the need for an HDMI adapter for streaming. As an added bonus, the USB cable doubles as its power supply, which would make cable management easier [17]. USB elbow adapters are available to help align the cable with the stand's boom arm.



17. The USB version of the MOKOSE camera promises more convenience. The camera's mounting socket is on top. *Manufacturer photo*



OBS (Open Broadcaster Software) Studio is an open-source freeware suite for video streaming and content creation [18]. OBS allows me to mix pictures, videos, video feeds, and audio, but the most important feature is that it allows me to switch between my Zoom session and my desktop.

OBS becomes my desktop with the video I want to present. OBS allows me to combine my PowerPoint presentation with the live video by simply switching between the two.

FINISHING TOUCHES

I used plastic zip ties to organize the cables on my camera rig, and keep them out of the camera's view. The Viltrox light has a 90-degree elbow in its power connector, and I like how it sends the cable straight along the rig's arm. I applied black tie wraps down the boom arm to the main leg, but to maintain maximum adjustability for the arm, I did not tie it to the leg.

I had two cables to route on the camera arm: one for the power, and the other for the HDMI cable. These both had straight plugs,



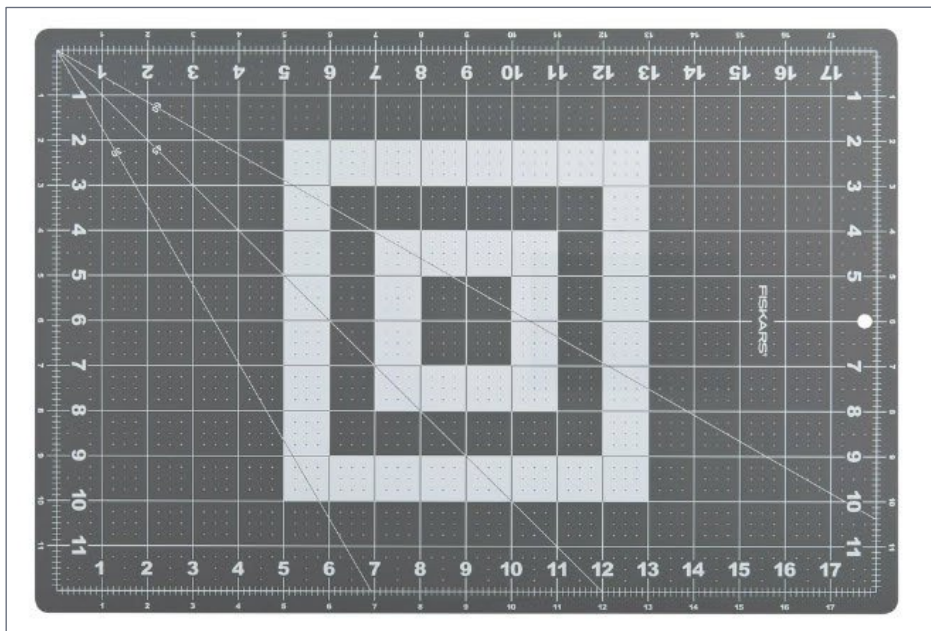
18. Screen shot of the OBS Studio homepage (obsproject.com).

so they came straight out of the back of the camera instead of being directed down the arm.

This meant that routing them to the arm would cause bows and loops in the wires, which I didn't want because they could be potential kinking points. To resolve the issue, I purchased 90-degree elbow adapters for both the power and HDMI connectors.

I then proceeded to zip-tie the two lines to the camera arm. The camera arm has a joint in the middle, so I made sure to leave plenty of wire for that joint to flex as needed. I then continued routing the lines to the crab adapter. Again, I did not tie the cables to the leg.

I placed a new Fiskars 12" x 18" cutting mat underneath the rig to help me keep my work centered under the camera for presentation. The mat's squares allow me to center the work on camera without having to look away from it to the computer



19. The Fiskars cutting mat. *Manufacturer photo*



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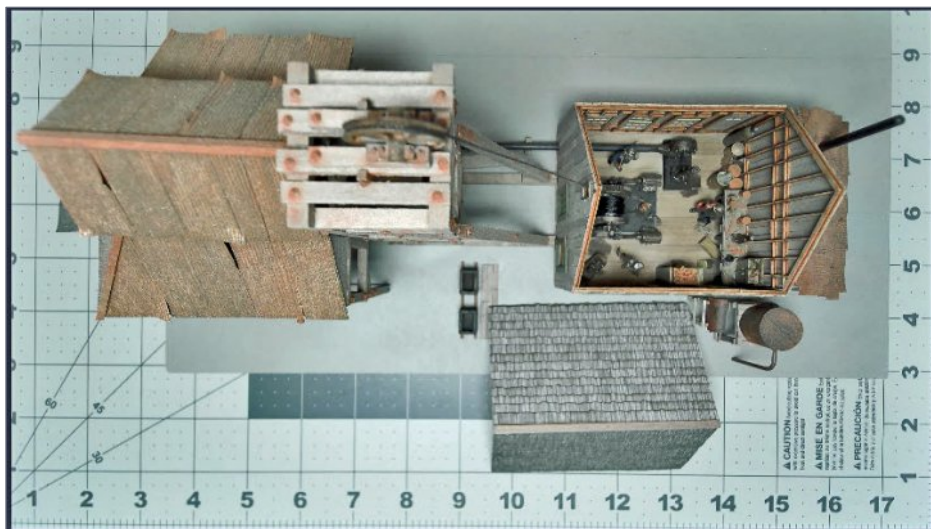
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monitor [19]. The mat has a dark gray side and an off-white side, and I choose the best background to complement my work.

TIME TO PLAY

To get my camera ready, I placed my Fiskars mat under the camera, focused on it, and captured a screen shot. Then I chose an unfinished model, the Sierra West Deer Creek Mine to see how easy it would be to refocus the camera on the various heights of the model.

The hoist house's interior was in focus immediately, but the top of the hoist – higher and closer to the camera – was out of focus [20]. With about a 1/8-turn of the focus ring, the nuts, bolts, and washers on top of the hoist came into focus, but the floor of the hoist house began to blur [21]. This was a good working distance for me.



20. The first photo of the Deer Creek Mine, with the hoist house interior in focus.

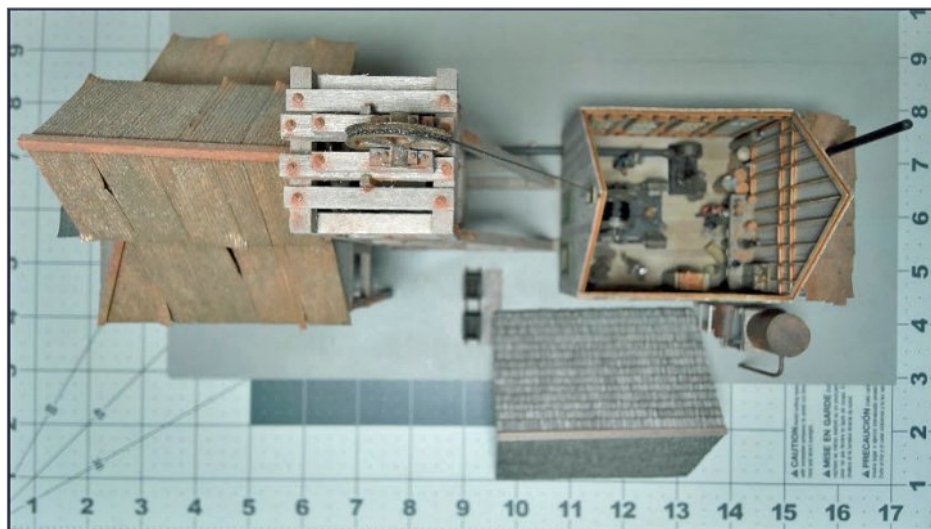
To go to the next extreme, I picked up an O scale figure that was still attached to its handling mount. I wanted to find how easy it would be to reposition the camera for a close-up of the figure.

I loosened the T-handle on the claw, lowered the camera until the figure was large enough for my needs [22], tightened the T handle, and refocused. This took about 20 seconds. I noticed that the camera had cast its shadow over the figure, so I tilted the camera head to move the shadow, and adjusted the light boom to correct the lighting.

Repositioning was faster, as I knew where to return the Camera Arm and Light Boom. I refocused and took several more experimental shots [23, 24, 25].

I need more practice using the camera stand, but it lives up to its ease of use and flexibility.

I thank Donna Orr, the chairperson for the 2023 NMRA Convention, and her team for putting on a great convention. I also



21. The second photo of the Deer Creek Mine, with the hoist roof in focus.

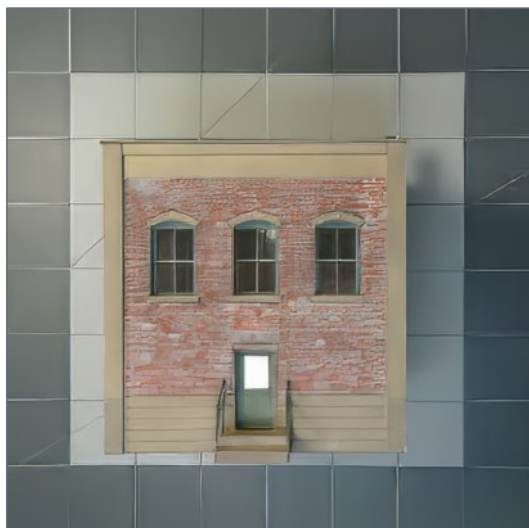




22. Testing with the O-scale figure.



23. The interior of a blacksmith shop.



24. The front of a warehouse building.



25. A low-relief background building.



thank Brooks Willig and his company Western Audio Works for his help and willingness to share. ☑

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JEFF PALMER



Jeff spent 50 years developing software, and 25 years as a college professor. As a modeler, he has an interest in logging and mining (narrow gauge). He loves structures and scenery.

About two years ago, he completed his NMRA Master Model Railroader (MMR) qualification. ■

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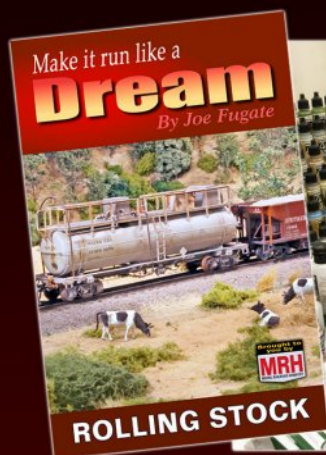
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JEFF SHULTZ REVIEWS SCALETRAINS N SCALE 82' TRINITY MECHANICAL REEFER ...

A MODERN REFRIGERATOR CAR SEEN ACROSS NORTH AMERICA

SCALETRAINS HAS RELEASED A LINE OF 82' MECHANICAL REEFERS IN N scale based on cars Trinity built from 2001-2003. A second run is available for pre-order.

Trinity built prototype modern mechanical refrigerator cars from 2001-2003. Unlike previous generations, this new generation of refrigerator cars featured external semi-truck style refrigeration units from ThermoKing and Carrier. Trinity built the cars in two batches, with the first having an internal capacity of 7,883 cubic feet and the second with 7,711 cubic feet. Both cars had the same external measurements.

BNSF ordered 810 cars from the first batch, delivered 2001-2002, and another 890 cars from the second batch, delivered in 2003. JR Simplot (reporting mark JRSX) also received 250 from the second batch in 2003.

The BNSF cars can be found in manifest trains nationwide with blocks running at the head end of intermodal trains between California and Chicago. The JR Simplot cars are frequently found on the Canadian Pacific Railway (now CPKC).

BNSF 793000 to 793109 are now owned by Trinity Leasing with the TILX reporting mark, keeping their original numbers. All of the BNSF originated cars are painted white with blue-and-black icicle highlights along the roof line.



1. The car is approximately 5.8 inches long and weighs 1.6 ounces, about 0.2 oz. heavier than the NMRA standard.



2. The couplers match a Kadee/Micro-Trains coupler height gauge.



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Multiple types of semi-truck style refrigerator units were installed on the prototypes, with ScaleTrains modeling the early ThermoKing, late ThermoKing, and Carrier types. The refrigerator units and 300-gallon fuel tanks are mounted on the A-end of the cars. The cars also feature two variants of 12' plug doors, with one having a recessed top section and the other a flush top section. The cars also were manufactured with smooth and ribbed roofs.

The models include many fine details – brake wheel, brake stand, brake chain, underbody brake rigging to match the 7,883-cu. ft. car, separate air reservoir, control valve, and retainer valve; factory-applied ladders, metal grab irons, and coupler cut levers, and ASF Ride Control trucks that include raised foundry data, and 36" machined metal wheels. Micro-Trains-compatible semi-scale Type E knuckle couplers are mounted to the body at the correct height. Capable of running on both code 55 and code 80 rail, the cars have a recommended radius of 11" although they will operate on 10"-radius curves.

ScaleTrains offers the option of having the cars sound-equipped with track power and a capacitor circuit for reliable sound continuity. The sound is adjusted with switches on the bottom of the car.



3a, 3b. Printing on the car is legible even in close-up macro photography. The white text on blue appears to be no more than three scale inches tall, and is legible with my 100mm macro lens – it is possible that Figure 3b is slightly out-of-focus.

Pre-orders of cars in multiple BNSF, TILX and data only/
Carrier HVAC schemes are currently being taken. The models
are priced at \$69.99 for the sound-equipped version and
\$44.99 for the non-sound car. ☑



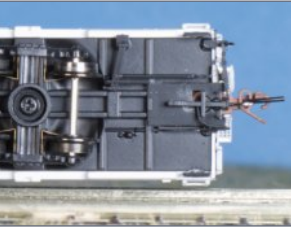
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4. (Left-top) This view of the bottom of the car shows the brake components, as well as the switches controlling the sound. Despite power pickups on both trucks, the car rolls on a slight grade. It stops quickly on level track.

5. (Bottom) This model of BNSF 793296 has a smooth roof, a 12-foot door with a recessed top section, and an early ThermoKing refrigerator unit.



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SAVVY MODELER *Online*



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Upgrading to metal handrails on your diesel loco

YouTuber **Daniel Cortopassi** goes over the entire process of upgrading poor-fitting or broken plastic handrails with much better looking and more bulletproof metal handrails.



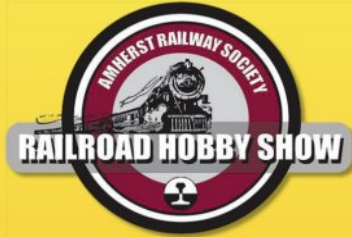
Daniel discusses the options available and then launches into a handrail installation. He covers bending handrails as well as soldering them on the locomotive. This video is labeled part 1, but we can't find a part 2. Nevertheless, this video stands alone and is loaded with great tips. ☑

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Model Railroad Hobbyist | December 2025



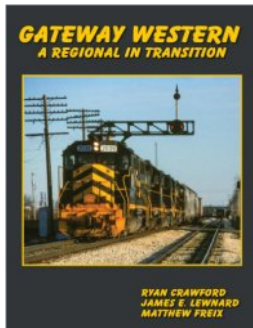
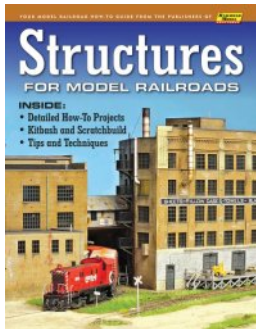
RICHARD BALE AND JEFF SHULTZ
REPORT THE LATEST HOBBY
INDUSTRY NEWS ...

INDUSTRY NEWS

Atlas Model Railroad Co., Hillside, New Jersey, has acquired **Micro-Trains Line Co.**, a manufacturer of N and Z scale models and couplers based in Talent, Oregon. The production of Micro-Trains products will transition to Atlas's global manufacturing network. "Micro-Trains by Atlas" is expected to resume production in 2026. Atlas has confirmed that Micro-Trains' existing dealer and distributor relationships will remain uninterrupted. Founded in 1924 to manufacture model railroad track products, Atlas has expanded in recent years through a program of selective acquisition that has included Custom Signals Co., River Point Station, Walther's N scale, BLMA, Weaver O scale products, and Branchline HO scale products. Atlas has announced that molds for Micro-Trains products will "be transferred to trusted suppliers in Vietnam, where quality, cost stability, and production capacity are strongest."

THE LATEST MODEL RAILROAD PRODUCTS, NEWS & EVENTS

NEW PRODUCTS FOR ALL SCALES



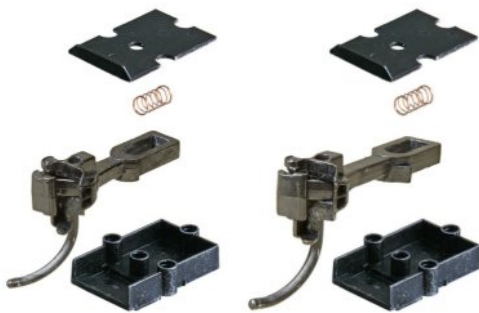
White River Productions is taking preorders for *Structures for Model Railroads*, edited by Otto Vondrak. Collected from *Railroad Model Craftsman*, the book contains techniques for scratchbuilding,

kitbashing, and modifying structures from sheds to a large textile mill. 8.5 x 11 softcover, 96 pages.

Also in preorder is *Gateway Western: A Regional in Transition*. Written by Ryan Crawford, James E. Lewnard, and Matthew Freix, the book covers the Chicago, St. Louis, and Kansas City lines of the former Illinois Central Gulf after they were sold off in the late 1980s. After the first railroad to manage them ran into financial difficulties the Santa Fe and others created the Gateway Western. Also covering Amtrak, KCS, Santa Fe, Southern Pacific and other railroads in the area, many color photos cover the system and equipment of the operation. 8.5 x 11 hardcover, 232 pages.

Info: shop.whiteriverproductions.com/products

O SCALE PRODUCT NEWS



Kadee has released two new O scale couplers, the #1745 "SBE" bottom shelf medium centerset metal coupler and the #1746 "SBE" bottom shelf long centerset metal coupler, both with plastic gearboxes. The shank of the #1745 is



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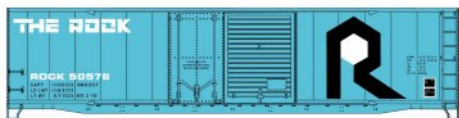
47/64ths of an inch long and the #1746 is 63/64ths of an inch in length.

Info: kadee.com

HO SCALE PRODUCT NEWS



New HO scale car kits coming from **Accurail** include this limited run 3-car set of 36' double-sheathed wood boxcar kits decorated for the Big Four/CCC&StL, Cleveland Cincinnati Chicago & St. Louis/NYC, and the Chicago Indiana & Southern/NYC. With a straight underframe and wood ends, the three cars are also available separately.



Also available is a Rock Island 50' combination door steel boxcar kit. The model features welded sides and a high ladder and brake wheel. The Accurail models depicted here are scheduled for production in February 2026.



This Pittsburgh and Lake Erie 2-bay 100-ton ACF centerflow covered hopper has a NEW date of February 1975 and is marked "For Cement Loading Only." All

Accurail car kits come with appropriate trucks with Delrin wheelsets and AccuMate knuckle couplers.

Info: accurailinc.com

Atlas has released the Winter 2025 HO & N scale catalog. It can be downloaded from download.atlasrr.com/1125MCPDF/HON2025CatalogMSRPOnly1.pdf. The pre-order date for all products listed in the catalog is January 7th, 2026.



J. Shultz

EMD SD24 AND SD26 DIESEL ELECTRIC LOCOMOTIVES

Building on the non-turbocharged SD9 locomotive, the SD24 entered production in July 1958 featuring a turbocharged 16-567D3 prime mover delivering 2,400hp. Normally equipped with a 3,000-gallon fuel tank, the size of the tank required moving the air reservoirs to the roof in a configuration commonly referred to as “torpedo tubes.” The SD24s featured both high and low short hoods, as well as 45 cabless B-units purchased by Union Pacific. Factory low short hoods were sloped towards the front in the same manner as the GP20. 179 cab-equipped SD24s were built, with 80 going to the Santa Fe, 48 going to Southern Railway or its subsidiaries, 34 to the Union Pacific, 16 to the CB&Q, and the last one built to Kennecott Copper. The SD26 was the result of a Santa Fe rebuild program in the mid-1970s that increased their power to 2,625hp by using 645 power assemblies and Dash 2 electronics, among other improvements. Later modifications included replacing the windshields with a single window similar to that on the GP20.



The Atlas SD24 in HO scale features road name specific details such as the horn type, high or low short hood, bell location, winterization hatch, or gyra-lights. Road names for the SD24 are BN, Duluth Missabe & Iron Range (Demonstrator), Illinois Central Gulf (ex-Southern), Precision National (ex-Southern), UP, and Wisconsin Central (ex-FRV).



The SD26 comes decorated for Springfield Terminal (SF patch), Santa Fe (1-piece window), and Santa Fe (Bicentennial). The Gold Master models include an ESU



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LokSound 5 DCC sound decoder with over 20 sound effects. Silver models include an NMRA standard 21-Pin DCC plug.



Also in this announcement is the Alco S-4 1000hp end-cab switcher, produced between June 1949 and August 1957. Road

names in this release are Canadian National, Bessemer & Lake Erie, Erie Lackawanna, Green Mountain, Monongahela Connecting RR (Bicentennial), Morristown & Erie, NdeM, Santa Fe, and US Steel. The S-4 is available in both Silver and Gold Master models.



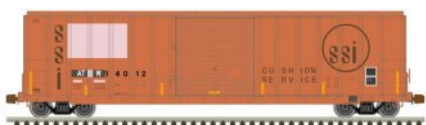
In the Atlas Classic line, new paint schemes and road numbers will be released for the RS-3 and RSD-4/5

locomotives. Both Gold and Silver models will be available.



Road names for the RS-3 are Delaware Otsego System, Farrocarriles Unidos Del Sureste, St. Johnsbury &

Lamoille County, Tennessee Central, Black River Western, and Ohio Central. The RSD-4/5 comes decorated for Southern Pacific, Utah Railway (Bicentennial), Jersey Central, and Utah Central.



New paint schemes and road numbers have been announced for the Atlas HO scale FMC 5077 boxcar in the Master line.

Multiple body styles and door types are available for the Plate B car. Road names in this release are BN, Delaware Lackawanna, Railbox, Richmond Fredericksburg & Potomac, Southern (ex RBOX), and Vermont Railway. A limited edition Atlantic & Western Railway (faded and patched) paint scheme is also available.



Atlas' Master 53' Evans double plug door boxcar will also be receiving new paint schemes

and road numbers. Equipped with 70-ton roller bearing trucks, blackened metal wheels, and a two-piece underframe, road names in this release are CNW (patch), ICG (ex-Evans), Cyprus (USLX), Plywood Marketing Associates (USLX), Quinault Pacific (USLX), St Regis (USLX), Tropicana (USLX), Wikes Agriculture (USLX), and Virginia Central.



The 73' center partition (Centerbeam) flatcar has become a standard in wood products and

similar services. The Atlas Master model will be available with new road names and numbers, and the road names in this release are Albany & Eastern, British Columbia Railway, Duluth Winnipeg & Pacific, GE Capital Rail Services (NAFX), Hampton Capital (HPTX), St Mary's Railway, and TTX.



Atlas is also re-releasing the Master series 50' postwar single door boxcar as a limited edition commemorative model

for the 250th anniversary of the United States by imagining an alternate history scenario where the Alaska RR, Conrail, Illinois Central Gulf, and Santa Fe railroads repainted these boxcars in Bicentennial schemes for the 200th anniversary in 1976.



In the Trainman series, Atlas's Winter 2025 catalog includes the ACF 3560 covered hopper decorated for C&O, IMCX, Norchem, Norfolk Southern, Rail Logistics (EAFX), Riverport Railroad, and Union Carbide (SHPX). Trainman cars are equipped with AccuMate knuckle couplers and metal wheels.



New roadnames for the HO scale Trainman 85' trash flat car with MSW containers are APEX,

ECDC Logistics (RSGX), USA Waste (USWX), East Carbon (AWXX), East Carbon (DSEX), and Gen American (GIMX). The



cars feature open decks, container pedestals, and 100-ton trucks equipped with metal wheels.



Additional Trainman 20' high-cube MSW containers will be available with two sets of three numbers available for each reporting mark. Names/reporting marks available in this release are USWX, RSGU, AWIU, DSEU, LWT, NWSX, and IWS.

Info: shop.atlasrr.com



Bachmann Trains is shipping these HO scale Bethlehem Steel 100-ton 3-bay hoppers. The models feature separately applied air tanks, brake valve,

brake wheel, and bracing parts. Optional modeler-installed weights and interior wall braces are included. Magnetic E-Z Mate Mark II couplers and blackened RP25 contour wheels are included.



Roadnames in this run include Chessie System (C&O), Conrail, CSX, Detroit Toledo & Ironton, Norfolk Southern, Pennsylvania

Power & Light, Union Pacific, Western Maryland, and Wheeling and Lake Erie.

Info: shop.bachmanntrains.com





R. Bale

ELECTRO MOTIVE GP35 LOCOMOTIVE

The EMD GP35 is a 4-axle road switcher built by General Motors between July 1963 and January 1966.

The GP35 was EMD's first direct challenge to GE highly successful U25B. It was also one of EMD's first diesels to have a modern car body design with a beveled cab. Over 1300 units were built for American, Canadian, and Mexican railroads. GP35s are powered by EMD's 16-cylinder 2,500hp 567D3A engine. Although low nose is standard, GP35s built for N&W, Southern and Ferrocarriles Nacionales de México have high-hoods. Many railroads traded in EMD F-units and Alco FA units for GP35s, reusing trucks and traction motors.



Broadway Limited has announced a new run of their EMD GP35 locomotive model. Road names in this release are BNSF (GP39-2 rebuild), Conrail, Rio Grande, Gulf Mobile & Ohio, Savannah & Atlanta, Soo Line (Bicentennial), Union Pacific and a Christmas holiday scheme.



Hobby Express has several additional schemes that will be available exclusively from their store: Akron Canton & Youngstown, Wheeling & Lake Erie (Operation Lifesaver), Pittsburg & West Virginia, and Western Maryland.



Hobby Express has several additional schemes that will be available exclusively from their store: Akron Canton & Youngstown, Wheeling & Lake Erie (Operation Lifesaver), Pittsburg & West Virginia, and Western Maryland.

All models feature road name specific details, such as the AAR Type B trucks on GP35s originally purchased by Southern Railway and Ann Arbor from trade-in Alco



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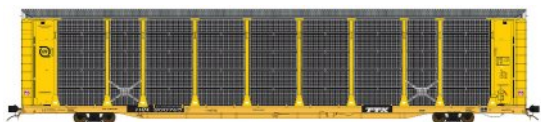
locomotives. The preorder deadline is February 12, 2026, with an estimated delivery date of Summer 2026.

Info: broadway-limited.com

Info: hobbyexpressinc.com



20-2 autorack in HO scale. The 20-2 autorack is 20'-2" tall, matching the maximum height of double-stack intermodal cars.



exclusively had them mounted on TTQX flatcars owned by TrailerTrain. Road names for the autoracks in the initial release are BNSF, Burlington Northern, Chicago Northwestern, Conrail, CSX, Florida East Coast, Norfolk Southern, Santa Fe, Southern Pacific, and Union Pacific.



and 54 unique road numbers. The models will feature metal stirrups, ladders, brake rigging, and CNC metal RP-25 contour wheels. The models require a minimum 22" radius.

Info: classonemodelworks.com



SD38-2 locomotives decorated for well-known freelance model railroads. The road names in this release are Andy Dorsch's Mascoutin Valley, Jim Hediger's Ohio Southern, Tim Garland's Seaboard Central, and Chris Palmieri's Texas & Great Northern.

ClassOneModelWorks.com has announced that they will be producing the Thrall

The autoracks were owned separately by the railroads, who usually but not

The initial run will include four prototype-accurate body styles, seventeen paint schemes,

HomeShops is taking preorders for four ScaleTrains EMD



Prairie Shadows is releasing their first locomotive model, the EMD GP20C-ECO. Rebuilt from GP9 donors with a 2000hp 8-710G3A prime mover, Canadian Pacific was the only buyer, purchasing 130 locomotives between 2013 and 2014. But in the HomeShops freelance reality, it was a much more successful locomotive, being purchased by Anthony Lorch's Kansas Pacific, Greg McComas' Michigan Interstate, Tim Garland's Seaboard Central, and Allen Whitaker's Tennessee Southern.



One of HomeShops goals is to recognize freelance model railroads from the past that were well known and respected by the community. In that, there are few that were better known than Tony Koester's Allegheny Midland. The Allegheny Midland HO scale Rapido C36-7 features Rockwell truck sideframes with high brake cylinders, the late 7-grille hood, an extended range dynamic brake hump, large silenced exhaust, 2-window cab, N&W/NS specific lower pilot step, and front and rear ditch lights. DCC/Sound equipped units have an ESU LokSound 5, silent units should have a 21-pin DCC plug.



The Bethlehem Steel Corporation's F68 series of 100-ton, 68' long flatcars was equipped at the factory for different loadings. Freelance railroads represented in this release are Hal Kattau's Calumet & Lake Erie, the Copper State Railway created by Brian Banna, the late Dean Freytag's Davies Steel Corporation, the late Allen McClelland's Virginian & Ohio, and Matt Gentry's Yankeetown Dock Corporation. Info: homeshops.net



Kadee's November car is a Milwaukee #96050, a 50-ton AAR standard 2-bay hopper with a load of lump-egg coal.



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The factory new paint is red oxide with a built date is 6-48. The model is equipped with Kadee's Bettendorf 50-ton Self Centering HGC Trucks with 33" smooth back wheels.



Kadee has also released the HO scale #126 SBE bottom shelf whisker metal coupler with gearboxes and a long (25/64") center set shank.

Info: www.kadee.com



Rapido Trains has announced preorders for the Alco/MLW C424/C425 locomotives.

Rapido appears to intend on going full-in with the

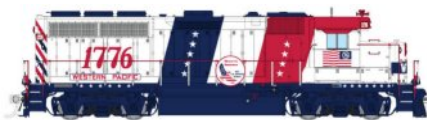
variations in the C424/C425 line, not only between those built by Alco vs. MLW, but with the numerous detail variations between the individual locomotives themselves.



With 122 different products in the initial run (61 ESU Loksound 5, 61 Silent/DC), Rapido includes many road

names and paint scheme variations for both the MLW and Alco versions. For the MLW C424 the road names are CN Rail, Canadian Pacific/CP Rail, and NdeM. The Alco C424 will be available for Reading, Conrail (Reading Patch), Belt Railway of Chicago, and Erie Lackawanna. The Alco C424m will be decorated for Delaware & Hudson, and the Alco C425 roadnames are Spokane Portland and Seattle, Burlington Northern (SP&S Patch), Burlington Northern, New Haven-Trustee, Penn Central, Conrail, Norfolk & Western (high hood), Pennsylvania RR, BC Rail, and Mohawk Adirondack & Northern

(BCR scheme), A preorder close date and anticipated delivery date were not stated.



In production with Rapido now is a new release of the EMD GP40 in HO scale. This run consists of three road names:

Western Pacific, M-K-T, and Illinois Central. The Western Pacific locomotives are the Bicentennial set of 1776 and 1976, which will be offered only as a duo in a special commemorative wooden display box.



The M-K-T locomotives will be available in two paint schemes, the solid red delivery scheme and the M-K-T Bicentennial

scheme. The Illinois Central GP40Rs are the last four straight GP40s on the Illinois Central roster and Rapido is offering all four road numbers. All of the locomotives are limited releases, with 200 sets of the Western Pacific models, 75 per number of the M-K-T delivery red scheme models, 150 M-K-T Bicentennial locomotives, and 100 of each number of the Illinois Central "Final Four."



As a follow-up to the CB&Q Budd Gallery Cars in HO scale,

Rapido is announcing the Rock Island and Milwaukee versions. They'll feature complete interior including gallery seating, correctly colored "tinted" windows, a MoPower capacitor for uninterrupted lighting in DC and DCC, controllable cab car lighting in both DC and DCC, and a suggested minimum radius of 22".



There will be two separate three-pack variations for each

paint scheme – a cab car and two coaches or three coaches. Single cars are also available. Paint schemes will be Milwaukee, Rock Island, Metra (early logo), Metra (modern logo), and



Metra (modern logo w/BNSF). Painted unlettered versions will also be available.



To accompany the commuter Gallery Cars Rapido is releasing

modernized E-units with HEP and steam heat. This run includes HEP versions of the Milwaukee Road E9A, the Rock Island E8A, the Chicago & North Western E8A, and the New York Susquehanna & Western E9A. The Susquehanna models also are equipped with ditch lights. A model of Conrail 4022, the only E8A painted Conrail blue, is depicted with steam generator equipment.



In stock at Rapido is the HO scale Trenton Works 6637 cu. ft. BC Rail boxcar, a Plate E 66'

combination door boxcar. The cars feature multiple road numbers per scheme and a suggested minimum radius of 18".



Paint schemes in this run include BC Rail (delivery), BC Rail (vertical conspicuity stripes), BC

Rail (horizontal conspicuity stripes), Rapido Trains (vertical conspicuity stripes), Rapido Trains (horizontal conspicuity stripes), and Railroad of Lies (ROLX – horizontal conspicuity stripes). All models except the delivery schemes feature faded green paint.

Info: www.rapidotrains.com

All artwork and graphics are courtesy of Rapido Trains



ROKA Prototype Models is developing HO scale models of three versions of the 33,700-

gallon Spiral Tank Car manufactured by American Railroad Industries (ARI) and Greenbrier Companies. Designed for pressurized liquified petroleum gas (LPG) and low pressure high-hazard chemicals, these tank cars first entered service in

2008. The spiral design offers lower construction costs and increased safety in puncture resistance and structural integrity.



Differences in the versions primarily involve the placement of the brake equipment, the prominence of the lap welded seam, and the length and location of the upper walkway. Version 1 road names are SHQX LPG (white), AREX LPG (black), and MTZX LPG (black).



Version 2 road names are CPCX Toxic Chemical for Butadienes Stabilized Non-Odorized (cream), FURX LPG (black), CPCX Toxic Chemical for I-Hexene (cream). And SHQX Toxic Chemical for Anhydrous Ammonia (gray). Version 3 road names are SHQX LPG (gray), CBTX LPG (black), and TEIX LPG (black).

Models are anticipated to be available in January 2026.

Info: rokamodels.com



New from Speedwitch Media are two new HO scale parts sets. Set P126.1 is to upgrade an ATSF

Bx-34 boxcar with a Duryea cushion underframe. Intended to be used with modified (10'6" inside height) 1937 AAR boxcar kits such as those from Sunshine or InterMountain, the parts included are floor/base underframe casting, center sills, crossbearers, bolsters, side sill and bolster support tabs, etched and resin structural members and brake part hangers/brackets, brake levers and clevises, Santa Fe standard ladders, sill steps, brake housing supports, brake step supports, running board brackets and supports, Santa Fe placard and route card boards and unique brackets, and other additional details.



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Set P127.1 includes a PRR X32A underframe, ends and details w/50s shadow keystone

lettering. It modifies a Bowser X32 boxcar by replacing the floor/underbody, the Dreadnaught ends, bolster and crossbearer cover plates, crossbearers and crossties, AB brake mounting brackets for cylinder, AB ("triple") valve, and reservoirs, foundation brake gear levers, sill steps, ladders, end and side bracket grab irons, running board supports, latitudinal running board supports, brake step supports, retainer valve and pipe brackets, bell crank mounting bracket, uncoupler lever brackets, trainline brackets, legible trust plates, and placard boards and brackets.

Info: speedwitchmedia.com



R. Bale

GE GENESIS P42 LOCOMOTIVE

The Genesis P42 is a passenger diesel locomotive produced between 1992 and 2001 by GE Transportation. A total of 321 units were built for Amtrak, Metro-North, and VIA Rail.

The Genesis series were the lowest North American diesel locomotives until the introduction of the Siemens Charger. This height restriction allows the locomotive to travel through low profile tunnels in the Northeast Corridor. The GE Genesis series is unique among North American passenger locomotives in that it uses a single, monocoque body making it lighter, more aerodynamic, and more fuel efficient than its predecessors. However, monocoque construction is costly and time-consuming to maintain and repair. In 2004, Amtrak started installing bolt-on nose cones on its units for easy replacement in the event of a grade crossing collision. The P42 is a fully computerized locomotive which automatically controls all on-board functions. The trucks of Genesis locomotives were made in Germany by Krupp Verkehrstechnik, which has since been absorbed by Siemens. Trucks on the newest Genesis locomotives carry the Siemens name.



by Amtrak from the 1990s through the mid-2020s is also in use by VIA Rail Canada.



Paint schemes for this first run of P42 models will be Amtrak Phase III, Amtrak Phase IV, Amtrak Phase V (early), Amtrak Phase VII, Amtrak Phase VI 50th Anniversary, and VIA Rail Canada.



The model is available with ESU sound and DCC, and a DCC ready version includes a 21-pin DCC plug and factory installed speakers. Expected delivery is in Fall 2026.



Also announced by Walther's is a Walther's Mainline 40' Wood Stock car with Dreadnaught ends. Based on a 1950s prototype, the model includes corrugated steel Dreadnaught ends, metal roof and running boards, and a body mounted handbrake.



Road names in this release are Chicago Burlington & Quincy, Chicago & North Western, Denver & Rio Grande Western, Great Northern, Santa Fe, Swift, and data only in mineral brown. The cars feature Proto Max metal knuckle couplers and 33" scale diameter RP-25 contour metal wheels. Delivery is expected in Summer 2026.



Also from Walther's Mainline is an HO 40' steel boxcar with Murphy ends. Based on rebuilt and upgraded steel boxcars, they are suitable for the era from the 1920s to the 1960s, with



some serving in MoW service into the 1980s. The model is equipped with 5-5-5 Murphy steel ends, and Andrew truck sideframes.



Road names available in this release are Delaware Lackawanna & Western, Missouri Pacific, New York Central

(Michigan Central), Nickel Plate Road, Northampton & Bath, Pennsylvania RR, New York Susquehanna & Western, Union Pacific, and Undecorated. Delivery is expected in Spring 2026.

Info: www.walthers.com

N SCALE PRODUCT NEWS

Atlas has released the Winter 2025 HO & N scale catalog. It can be downloaded from download.atlasrr.com/1125MCPDF/HON2025CatalogMSRPOnly1.pdf. The pre-order date for all products listed in the catalog is January 7th, 2026.



The Atlas SD24 in N scale features accurate body and lighting configurations for each of the major high and low hood

variations and road name specific details and paint schemes.

Road names for the SD24 are BN, Duluth Missabe & Iron Range (Demonstrator), Illinois Central Gulf (ex-Southern), Precision National (ex-Southern), UP, and Wisconsin Central (ex-FRV).



The SD26 comes decorated for Springfield Terminal (SF patch), Santa Fe (1-piece window), and Santa Fe (Bicentennial). Both Gold

and Silver Master levels of the locomotive will be available for each road name and number. The Gold Master models include an ESU LokSound DCC sound decoder with over 20 sound effects. Silver Sound Ready models include a factory installed speaker.



Also announced in this catalog is the Alco S-4 1000hp end-cab switcher, produced between June 1949 and August 1957. The model includes both riveted and welded cabs, an option for vertical or horizontal radiator shutters, directional LED lighting, and fine scale handrails. Road names in this release are Canadian National, Chessie System (B&O), Maine Central, Milwaukee Road, Morristown & Erie, Norfolk & Western, Union Pacific, and Western Pacific. The S-4 is available in both Silver and Gold Master models.



The Atlas N scale Trainman GP15-1 model features directional lighting, blackened metal wheels, AccuMate magnetic knuckle couplers, and is DCC ready. This release includes the Carolina Coastal Railway, Cincinnati Eastern, Florida Central, Housatonic, Morristown & Erie, and Prairie Lines. A limited edition Metra paint scheme will also be available.



New paint schemes and road numbers have been announced for the Atlas HO scale FMC 5077 boxcar in the Master line. A Plate B car, multiple body styles and door types are available. Road names in this release are BN, Delaware Lackawanna, Railbox, Richmond Fredericksburg & Potomac, Southern (ex-RBOX), and Vermont Railway. A limited edition Atlantic & Western (faded and patched) paint scheme is also included in this release.



Also part of the Winter 2025 catalog is the Atlas N scale DIFCO side dump car, an air-activated, all-welded construction, 50 cubic yard car used both in maintenance of way and revenue service. The model features AccuMate couplers and 100-ton roller-bearing trucks. Road names in this release are ATSF, BC Rail, CSDX, Helm Leasing (HLMX), MNCW, Southern, and Union Pacific.



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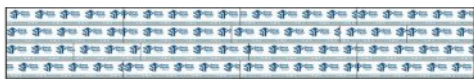
Atlas' Master 53' Evans double plug door boxcar will also be receiving new paint schemes and road numbers. Road names in this

release are CNW (patch), ICG (ex-Evans), Cyprus (USLX), Plywood Marketing Associates (USLX), Quinault Pacific (USLX), St Regis (USLX), Tropicana (USLX), Wikes Agriculture(USLX), and Virginia Central.



A new model in N scale from Atlas, the 73' center partition (centerbeam) flatcar is

widely used for transporting wood products and other construction materials. The model features a die-cast floor, detailed brake lines and air reservoir, etched metal crossover platform, 100-ton trucks with 36" metal wheels, and a minimum radius of 12 1/2". Road names in this initial release are Atlantic & Western, BNSF, Canadian National (DWC), Canadian Pacific (SOO), Norfolk Southern, TTX, Union Pacific, and Willamette & Pacific RR.



Wood products loads on centerbeam flatcars are frequently wrapped in plastic

with the manufacturer's logo prominently displayed. Designed to fit the 73' N scale center partition car are separately available wrapped lumber loads decorated for Georgia Pacific, Interfor, Sierra Pacific, and Weyerhaeuser.



In the Trainman series, Atlas's Winter 2025 catalog includes the ACF 3560 covered hopper decorated for C&O, IMCX, Norchem, Norfolk Southern, Rail Logistics (EAFX), Riverport Railroad, and Union Carbide (SHPX). Trainman cars are equipped with V-frame ends, roping staples, five roof hatches, body mounted brake gear, AccuMate knuckle couplers and free-rolling metal wheels.



New roadnames for the N scale Trainman 85' trash flat car with MSW containers are

APEX, ECDC Logistics (RSGX), USA Waste (USWX), East Carbon (AWXX), East Carbon (DSEX), And Gen American (GIMX). The cars feature open decks, weighted and detailed underframes, and 100-ton trucks equipped with free-rolling wheels.



Additional Trainman 20' high-cube MSW containers will be available with two sets of three numbers available for each reporting mark. Names/reporting marks available in this release are USWX, RSGU, AWIU, DSEU, LWT, NWSX, and IWS.

Info: shop.atlasrr.com



Coming in the summer of 2026 from **Kato** are two new N scale sets.

The first includes F40PH #370 and three Superliner I cars in the Phase III paint scheme, with options for DCC, DCC and Sound, and factory installed car lighting. There are options to allow the customer to mix and match, so check the website for pricing. The four Superliner cars in the set are Sleeper #32064, Coach-baggage #31005, and Coach #34071.



The second set is four Superliner I cars plus Baggage #1234, and Budd Hi-Level Stepdown Coach

#39930, in Phase III paint with optional factory lighting. The Superliner I cars are Sleeper #32002, Diner #38010, Lounge #33024, and Coach #34100.

Info: www.katousa.com



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Railsmith has opened preorders for the N scale Wabash City of Kansas City coach fleet. Built by American Car & Foundry in 1947, the coach fleet was built specifically for the City of Kansas City

train. At just seven cars long, only one trainset was needed for this all coach train running between St. Louis and Kansas City. Info: lowellsmith.net



Rapido has announced a new run of the N scale Angus Wide Vision Caboose. In addition to new paint schemes and road numbers, the cabooses are now equipped with track powered lighting. Over 300 cabooses, or vans in Canadian parlance, were built in Canadian Pacific's Angus Shops in Montreal.



The cabooses track powered lighting works with both DC and DCC power and the cars have a suggested minimum radius of 9-3/4". The 27 paint schemes in this run are CP Rail, Canadian Pacific Railway – Engineering (two schemes), CP Rail – Gauge Calibration Car, British Columbia Railway (two-tone green), BC Rail (hockey stick), BC Rail, Ontario Northland (Chevron), Toronto Hamilton & Buffalo, Burlington Northern, Burlington Northern (Freedom/Desert Storm), Chessie System (C&O), CSX – Safety First, Frisco, Frisco (Bicentennial), Grand Trunk Western, Missouri-Kansas-Texas (MKT), Norfolk Southern, Rio Grande, Rock Island, Santa Fe, Union Pacific, TTX, MOW "Work Extra", Painted/Unlettered – white, Painted/Unlettered – red, and Painted/Unlettered – yellow.

Info: www.rapidotrains.com

All artwork and graphics are courtesy of Rapido Trains



Trainworx has announced that a new run of N scale woodchip hoppers are available for

preorder, with an expected arrival date of November 2026. A model of the Greenville 7000 cu ft wood chip hopper, previous runs of the car have been equipped with Fox Valley metal wheels and Trainworx M89 couplers. The artwork indicates that a simulated woodchip load will be included.



Road names in this release are Apalachicola Northern, Atlanta and St. Andrews Bay Railroad,

Family Lines System (CSXT re-stencil), Family Lines System (L&N), Illinois Central Gulf, Meridian and Bigbee, Norfolk Southern, Seaboard System (CSXT re-stencil), Seaboard System (SBD), and Southern.

Info: train-worx.com

STRUCTURES & SCENIC SUPPLIES



DigComDesigns has released a new papercraft model of the Midas/Speedee Garage in HO and N scale. The HO scale footprint is 400.65mm x 165.6mm and the N scale

footprint is 180.13mm x 90mm. The models are download, print, cut and assemble. As they can be printed as many times as needed, mistakes or accidents can be easily replaced.

Info: www.digcomdesigns.net

New from **Frenchman River Model Works** is Ouisi's Bar in O (1:48) scale. Originally designed by Thomas Yorke in 1995 as a limited run hydrocal structure, it has been updated as a resin kit. The small brick building with a corner entry is designed for



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a gently sloping corner location and consists of four resin walls, a resin base, three resin sidewalk sections, resin details, styrene, lumber, wire, printed signs, window glazing material, tar paper roofing, and instructions. The dimensions of the building are 3.25" wide, 4.75" long, and 3.5" tall (without sign or billboard). The

display footprint is 6" wide by 8.875" long. Figures, vehicles, and details on sidewalk and back porch not included.



Another Thomas Yorke kit now sold by Frenchman River is the O (1:48) scale 1919 Hearse

Conversion kit. It contains the parts to transform a suitable donor vehicle, such as a 1:43 Russo Balt diecast model, into a typical wooden bodied hearse. The kit contains two ornate resin sides, two resin cab doors, a resin cab floor/seat, a resin cab/seat back, a resin roof assembly, a resin floor, and window glazing material.

Info: www.frenchmanriver.com



Alleyscape is the name of a new limited edition HO scale kit from **ITLA Scale Models**. Consisting of five modular buildings, the individual backdrop buildings have interchangeable side walls to customize your alley space. The buildings can even be vertically offset on a sloping street. Made

of laser engraved masonry, there are three different scale brick/block patterns. ITLA laser-cut roof and wall details are included. 3D-printed detail parts are included from **Focus Creative Studio** including roof vents, drainage scuppers, pipe elbows, trash cans, dumpsters, bags, gas meters, drums, and more. The footprint of the five buildings measures approximately 13.5" L x 5.5" H x 2.75" D with the individual buildings varying in width from 2.2" to 2.7" to 3". Depth is adjustable through optional cuts on the side pieces.

Info: itlascalemodels.com

Info: www.focus-creative-studio.com



Mine Mount Models has released four new 3D printed detail sets, part of the furniture collection. The sets consist of a round table and chairs, a café table and chairs, a bench with tools and assorted stuff, and an empty bench. Available in HO, S, and

O scales, the 3D printed parts are unpainted, and some cleanup may be needed prior to painting.

Info: minemountmodels.com



miniprints has three sets of 3D printed figures and details called Behind the Buildings that are designed to be added to the ITLA

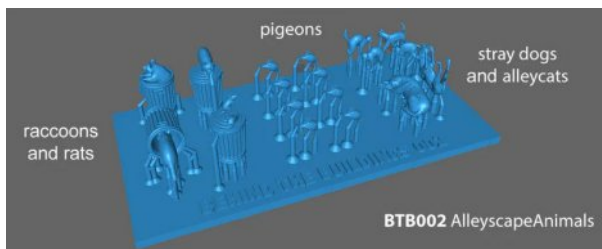
Scale Models Alleyscape kit seen above. The first set, Behind the Buildings 001, includes six people – Angry Annie, Sammy Sax, Drunken Dave, Dumpster Dan (with the dumpster), Peein' Pete, and Bag Lady Barbara (with shopping cart).



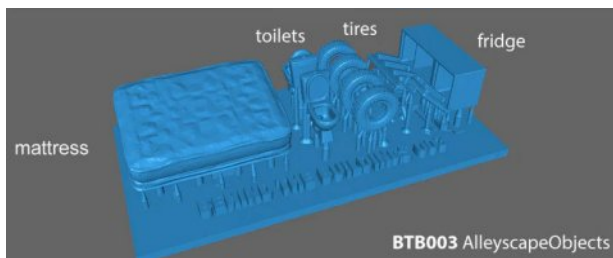
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Behind the Buildings 002 is a set of critters that might commonly be found in urban environments such as raccoons, rats, pigeons, stray dogs, and alley cats.



Behind the Buildings 003 is a set of detail parts including a mattress, toilets, tires, and a derelict refrigerator.

Info: miniprints.com



Announced from **Oxford Diecast** are several new vehicles for delivery in Summer 2026. The first is a 1968 Buick Electra 225 in Medium Teal Blue Mist and Parchment.



1953 Kaiser Manhattan in Copper Dust and Australian Beige.



1960 Ford Falcon Ranchero in Meadowvale Green, comes with a load.
Info: walthers.com

Walthers is introducing a new run of the SceneMaster HO scale Morgan Olson Route Star Van. The classic 'Step Van' seen throughout North America as a delivery and service vehicle, the Route Star has been a common sight since its introduction



in the 1990s. Their sizable cargo area makes them a favorite for conversion into food trucks as well.

The model includes window glazing and an interior partition between the driving compartment and the

cargo area. New paint schemes are The Layout Ledger Newspaper Delivery, Pop's BBQ Food Truck, Fire Department Canteen, Volt & Valve, Bel Aire Flowers, Cargo Vehicle Rental, and Webworks Cable Internet Service. A white painted unlettered van will also be available. Delivery is expected during Winter 2026.

Info: walthers.com



Woodland Scenics is releasing a new line of figures in N, HO, and O scales called "Find Me Figures." Categorized as Holiday, Science Fiction, Monsters, Dinosaurs, and Historical Figures, there will also be a Find Me Figures checklist tablet. HO and N scales will have four figures per set; O scale will have each set broken down into two groups of two. The figures are expected to be available this month.

Info: woodlandscenics.com

NEW DECALS, SIGNS, & FINISHING PRODUCTS



Microscale has released a new decal set for the CPKC Tier 4 locomotives. It includes logos, wordmarks, number scrambles, and all of the data markings on a modern CPKC locomotive.

Info: microscale.com

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! BRIEFLY NOTED AT PRESS TIME ...

Kadee has announced an HO scale Pullman Standard 50-ton AAR flatcar in Union Pacific as their December 2025 model release ...

Bollinger Edgerly Scale Trains (BEST) has released the Evergreen Plantation House in HO scale. It is based on a house in Wallace, Louisiana that was built in approximately 1830 ...

Athearn has extended its preorders for the products announced at the end of September to the end of December. Also, through 2026 Athearn has announced they will do pre-orders every two months instead of the 30-day cycle they've had previously ...

Lines West has released an HO scale kit of a Southern Pullman Standard 50'-6" double door waffle side boxcar. The kit does not include trucks or couplers. ■

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Ongoing Online and In-Person

ONLINE, Zoom & YouTube, Wednesdays at 7pm Eastern. New Tracks Modeling Live Weekly

Info: newtracksmodeling.com

YouTube: [www.youtube.com/channel/UCMA](https://www.youtube.com/channel/UCMAVhPb5pjdkAYTdXLceJA)

[VhPb5pjdkAYTdXLceJA](https://www.youtube.com/channel/UCMAVhPb5pjdkAYTdXLceJA)

ONLINE, Facebook & YouTube, dates vary, see Facebook page. "NMRax" organized by Gordy Robinson, Martyn Jenkins, Speed Muller, Jordan Kramer.

Info: www.facebook.com/groups/nmragroup

ONLINE, Zoom, Second Tuesdays, 8pm Eastern. "Off the Beaten Track" featuring Narrow Gauge layouts, clinics, and manufacturers.

Info: groups.io/g/NNG

ILLINOIS, CALEDONIA, Monthly Meetings of the Rock River Valley Division, Midwest Region. Paulson's Agriculture Museum of Argyle, 6950 Belvidere Rd. See Events page on website for dates.

Info: rrvd-nmra.com

December 2025 – January 2026

CANADA, SASKATCHEWAN, PRINCE ALBERT, January 17-18, 2026. Prince Albert Model Railroaders Club annual Model Trains and Hobby Show. Gateway Mall, 1403 Central Avenue.
Info: riverxingnorth@gmail.com

CALIFORNIA, SANTA CLARA, January 30 – February 1, 2026. PCR Bay Area Layout Design & Operations Weekend. South Bay Historical Railroad Society, Santa Clara Caltrain Depot.
Online via Zoom.
Info: bayldops.com/2026/index.html

FLORIDA, COCOA BEACH, January 8-10, 2026. Prototype Rails RPM Meet. Cocoa Beach Hilton Oceanfront, 1550 N Atlantic Ave (Hwy A1A).
Info: www.prototyperrails.com

IDAHO, BOISE, January 3-4, 2026. Great Train Show. Expo Idaho, 5610 N Glenwood St.
Info: expoidaho.com/event/great-train-show-9

MASSACHUSETTS, ORLEANS, December 20, 27, 2025, Nauset Model RR Club Open House, Hilltop Plaza, 180 Route 6A, Cranberry Highway.
Info: www.nausetmodelrrclub.com

MASSACHUSETTS, WEST SPRINGFIELD, January 24-25, 2026. Amherst Railway Society Railroad Hobby Show. Better Living Center, Young, Stroh, and Mallery Buildings at The Eastern States Exposition Fairgrounds – Home of the Big E. 1305 Memorial Avenue.
Info: www.railroadhobbyshow.com/index.php

MICHIGAN, GRANDVILLE, January 3, 2026. Grand Rapids Model Railroad Historical Society Train Sale. American Legion Post 179, 2327 Wilson Ave SW.
Info: www.grmrhs.org/home/train-sale



MINNESOTA, WINSTED, January 10-11, 2026. Luce Line Model Train Show & Sale, sponsored by Big John's Model Trains. Old St. John Lutheran Church, 410 1st St. N.

Info: www.facebook.com/events/1517427956134160

MISSOURI, ST. CHARLES, January 3, 2026. Trainfair 2026, sponsored by the St. Charles Model Railroad Club. St. Charles West High School, 3601 Droste Road.

Info: www.stcharlesrailroadclub.org

NEW JERSEY, CINNAMINSON, December 27-28, 2025, January 10-11, 17-18, 2026. Burlington County Model Railroad Club 2025-2026 Winter Open House. 808 Pomona Road, basement of the Footlighters Theatre.

Info: www.bcmrc.org

NEW JERSEY, TOMS RIVER, December 21, 2025. The Toms River Train & Toy Show. Elks Lodge 1875, 600 Washington St.

Info: www.eastcoasttrainparts.com/tomsriver.htm

NORTH CAROLINA, CONCORD, December 20, 2025. Concord NC Model Train Show and Sale. Hilton Garden Inn, 7381 Gateway Lane.

Info: www.carolinatrainshow.com

VIRGINIA, CHANTILLY, December 20-21, 2025. Greenberg's Great Train & Toy Show. Dulles Expo Center, 4320 Chantilly Shopping Center.

Info: trainshows.net/event/1202/greenbergs-great-train-and-toy-show

WASHINGTON, KENNEWICK, January 24-25, 2026. Great American Train Show. Benton County Fairgrounds, 1500 S. Oak St., Building #20.

Info: pnr.nmra.org/events.html

WASHINGTON, PUYALLUP, January 17-18, 2028. Great American Train Show. Washington State Fair Event Center, Blue Gate, 110 9th Avenue SW.

Info: www.thefair.com/events/great-america-train-show

WASHINGTON, RIDGEFIELD, January 10-11, 2026. Great American Train Show. Clark County Event Center at the Fairgrounds, Exhibit Hall C, 17402 NE Delfel Road.

Info: www.clarkcoeventcenter.com/events/2025/great-american-train-show2

WASHINGTON, TACOMA, December 19, 2025 – January 1, 2026. The 29th Annual Model Train Festival at the Washington State History Museum. Closed December 24 & 25. Washington State History Museum, 1911 Pacific Avenue.

Info: www.washingtonhistory.org/exhibit/trainfestival-29

TEXAS, PLANO, January 17-18, 2026. Dallas Area Train Show, sponsored by the North Texas Council of Railroad Clubs. Plano Centre, 2000 East Spring Creek Parkway.

Info: dfwtrainshows.com/page/dallas-area-train-show

Future 2026 by location

ALABAMA, MOBILE, March 7, 2026. SWARM Model Train Show. Mobile Via Health, Fitness, & Enrichment Center, Arlene F. Mitchell Campus, 1717 Dauphin Street.

Info: www.facebook.com/profile.php?id=100070094629309

COLORADO, DENVER, April 11-12, 2026. Rocky Mountain Train Show. National Western Complex, 4655 Humboldt St.

Info: rockymountaintrainshow.com/Default.aspx

KANSAS, LAWRENCE, February 28-March 1, 2026. 24th Annual Train Show and Swap Meet, sponsored by the Lawrence Model Railroad Club. Crown Toyota, 3400 South Iowa St.

Info: lawrencemodelrailroadclub.org/2026-train-show

KANSAS, WICHITA, February 7-8, 2026. The Wichita Train Show and Swap Meet sponsored by Chisholm Trail Division, NMRA. Cessna Activity Center, 2744 George Washington Blvd.

Info: www.nmrachisholmtraildivision.org/best-train-show.html

KENTUCKY, LOUISVILLE, March 21, 2026. 36th Year - Division 8 Train Show & Sale. Holy Family Parish Saffin Center, 3938 Poplar Level Rd.

Info: div8-mcr-nmra.org/site/index.htm



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NEW JERSEY, CINNAMINSON, February 14-15, 21-22, 2026. Burlington County Model Railroad Club 2025-2026 Winter Open House. 808 Pomona Road, basement of the Footlighters Theatre. Info: bcmrc.org

NEW YORK, ROCHESTER, February 21-22, 2026, RocRPM – Rochester Railroad Prototype Modelers Meet. Edgerton Community Center, 41 Backus St. Info: www.facebook.com/RocRPM

NORTH CAROLINA, NEW BERN, February 21-22, 2026. 30th Annual Train Show, presented by Carolina Coastal Railroaders. New Bern Riverfront Convention Center, 203 S. Front St. Info: www.carolinacoastalrailroaders.org/trainshow

OHIO, CANFIELD, February 14, 2026. Canfield Train & Toy Show. Event Center, Canfield Fairgrounds, Gate 9 State Route 46. Info: www.facebook.com/canfieldtoyandtrainshow

OKLAHOMA, TULSA, March 13-15th, 2026. 2026 Layout Design and Operations Weekend, presented by the Indian Nations Division of the NMRA. Locations: Various around Tulsa Info: ldopsigmeet.tulsanmra.org

OREGON, ALBANY, March 28, 2026. Winterail – 48th Anniversary Railroad Photography Exposition & Collectibles Sale. Russell Tripp Performance Center, Linn Benton Community College (LBCC), 6500 Pacific Blvd, SW. Info: www.winterail.com

OREGON, EUGENE, February 15-16, 2025. 36th Annual Swap Meet and Train Show, hosted by the Willamette Cascade Model Railroad Club. Lane County Events Center, 796 West 13th Avenue. Info: wmrrc.com

OREGON, PORTLAND, February 28, 2026. Willamette Model Railroad Club annual swap meet. Kliever Armory, 10000 NE 33rd Ave. Info: wmrrc.com

PENNSYLVANIA, BEAVER FALLS, February 7, 2026. Frosty Rails 2026, sponsored by the Beaver Lawrence Railway Historical Society, Inc. Chippewa TWP VFD Social Hall, 2568 Darlington Rd. Info: blrhsinc.org

PENNSYLVANIA, MALVERN, March 19-22, 2026. RPM Valley Forge, The Desmond Malvern, a Doubletree by Hilton, One Liberty Blvd.

Info: www.rpmvalleyforge.com

TENNESSEE, CHATTANOOGA, July 27-August 2, 2026. 2026 Scenic City Express, NMRA National Convention. Chattanooga Convention Center, 1 Carter St.

Info: www.nmra2026.org

TEXAS, PASADENA (Houston), February 21, 2026. Greater Houston Train Show, sponsored by the San Jacinto Model Railroad Club. Pasadena Convention Center, 902 Fairmount Parkway.

Info: sanjacmodeltrains.org ■

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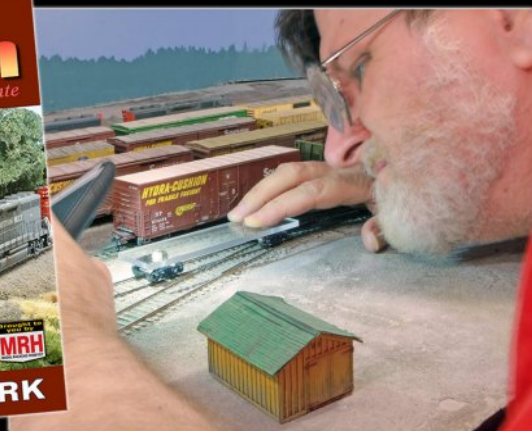
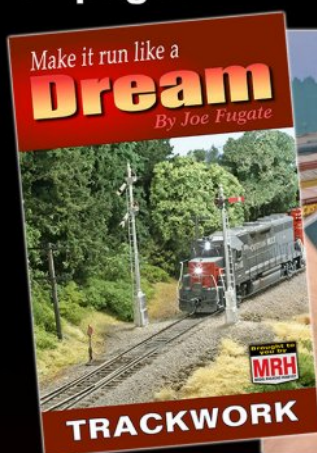
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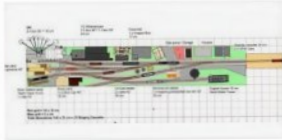
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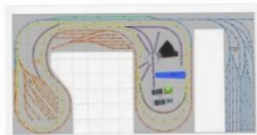
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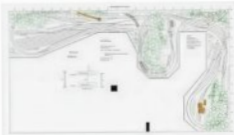
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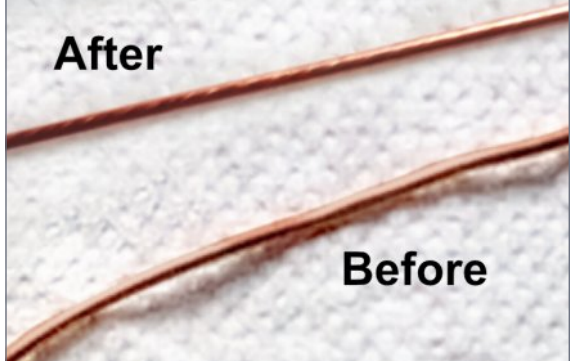
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