THE DEST OF THOO SINCE 2000

Sandy Smith • Intermodal N Scale: The Sequel • Build a TOFC Ramp George Hollwedel • Rolling Stock Tune Up Two-Step Peter Gössel, Hagen Langbartels, Heiko Rosemann, Wolfgang Thede, Dirk Warwel • Operating with Time Table & Train Orders on a Beautiful FREMO layout.

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SCALE RAILROADING N WELCOME!

over. A local freight train rests at the water tower in Cascade, Idaho. Transportable photo backdrops are used for the illusion of a wide landscape surrounding the narrow modules. Hagen Langbartels built this nscale module after FREMO standards See page 30.

CALCULUS

NGO

 ∞

AND SEE WHAT

ΤΟ

elcome to NScale Railroading #127, the November, 2020 issue.

Page 04. New Products.

Page 06. This is the follow up to Sandy Smith's intermodal industry from last issue.

Page 22. Sandy Smith is back with a simple TOFC ramp construction project.

Page 28. George Hollwedel returns with another article on how he tunes up freight cars.

Page 30. Peter Gössel, Hagen Langbartels, Heiko **Rosemann**, Wolfgang Thede, and Dirk Warwel teamed up to share how they set up and operate their FREMO modules with TT&TO (Time Table & Train Order). They will often rent a private location, do a lot of pre-planning, and spend a long weekend operating their modules for a specific theme for that weekend. Fasten your seatbelts as we follow a way freight during their 2020 session in Bremen. All communication is done in English, which is not the native tongue for any of the members.

Page 55. NCalendar, NHorizons, and Observations.



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HERE!

New! Flat Radiator EMD SD70M Locomotives

A blast from the past is returning to N scale courtesy of Kato USA! The EMD SD70M was the predecessor of such modern locomotives as the SD70ACe, and was delivered with a "Flat radiator" design, a look they wore prior to 2002 when they were refitted with a more commonly recognized flared radiator that is so common on engines today. These engines were famously popular with railroads like the Norfolk Southern and Union Pacific, being the two largest buyers of these engines when they were first introduced, and are still in use to this very day!

Kato is bringing these SD70M engines to the market with all details fully installed, illuminated number boards and headlights, and the classic paint schemes they wore in their pre-2002 appearance.

Of course, like all new releases, these engines are available in standard Analog (DC), DCC, and even DCC + Sound versions!

Looking for some rolling stock for your latest N scale Locomotives? Kato's N Scale Mixed Freight Train set includes 6 assorted freight cars that are suitable for almost any era of manifest freight train!



PA	Union Pacific	
Description	MSRF	
N EMD SD70M Flat Radiator - Norfolk Southern #2583 N EMD SD70M Flat Radiator - Norfolk Southern #2588 N EMD SD70M Flat Radiator - Union Pacific #4000 N EMD SD70M Flat Radiator - Union Pacific #4198	\$125 \$125 \$125 \$125 \$125	
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PRECISION RAILROAD MODELS

Norfolk Southern

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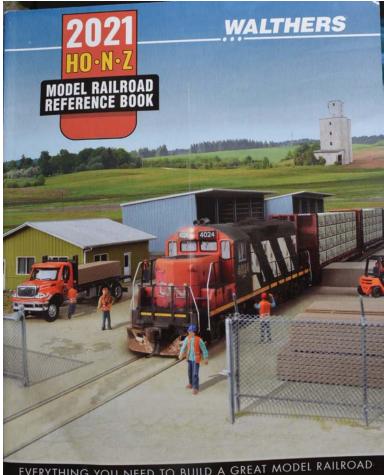


Hercules iPowder Company/ HPCX 10050 is Atlas 50 005 021.



Hooker Chemicals/ GATX 24922 is Atlas 50 005 007.

Left. The 2021 Walthers Catalog is out and available at your dealers and features their lines of H0, N, and ZX products. 134 of the 938 pages are dedicated to N scale specific products, including trainsets, rolling stock, couplers, trucks, track and accessaries, structures, bridges, figures, vehicles, and detail parts. Paint, electronics, tools, scratchbiuilding supplies, books and videos, and a large scenery section are in the multiscale area.



EVERYTHING YOU NEED TO BUILD A

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Intermodal N Scale: The Sequel

Text and Photos by Sandy Smith



Above. 01 Tehachapi Loop from Pacific Parlor Car Feb 2, 2012 on a diverted for construction Amtrak #14.

Let me start off this article by getting a bit political. No, no, wait, it is not what you think. I am an unabashedly, self admitted, an "N Scale-ist." That's right, nothing better in the model train universe than N according to my opinion. I have lots of other scale friends, or at least I used to before they discover this article. The advancement of capabilities in N scale in the

last 20 years have far exceeded what I would have dared to dream. A long, long time ago on a galaxy far, far away, I got an N scale, Aurora Postage Stamp train set for Christmas, about 50 years ago to be more precise. I haven't looked back, regretted it, or had second thoughts since that fateful Christmas morning.



Above. 02 Belmont Shore Techachapi Loop.



#127 DECEMBER 2020



Above. 03 BNSF auto racks circle the loop.

So how does this all align with the article title?

The North American railroads are always looking for a more efficient way to move freight. As dead weight, doesn't pay and increases costs. As an old friend told me once, "No reason to be hauling post holes." The Southern Pacific started experimenting with stacking of the ocean boxes in 1981 and the development of the modern stack cars began. Rapid refining of the cars' engineering to reduce the tare weight versatility and the load/unload efficiency of the cars eventually brought us to such products as the Gunderson Maxi Stack V, and its' cousins. Add in the articulated wheel sets between the cars that reduces the rolling resistance even further. Then, package the cars into packs or groups of cars such as the five pack, that eliminates four sets of wheels (two axle trucks) all their weight, the required maintenance, brake rigging, and eliminate four chances to have a too thin flange catch somewhere. This is just a great idea all around. At the same time the traditional piggy back cars were getting simplified with single axle wheel sets, (they still look very European to me), skeleton frames and reduced decking. No reason to back a truck on or off when cranes and packers are available or have workers lashing vans to the cars that would need a work from space, so the decks are gone as well.



Above. 04 Chuck Short and David Sheehan enjoy the Belmont Shore Club in 2018.





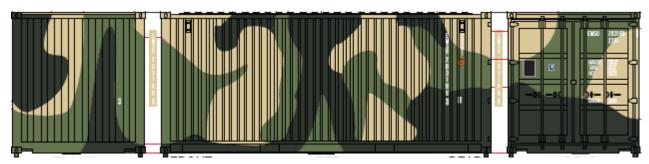
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Above. 05 An unusual pairing of power, SP SD-45 and Alco RS-3 in front of a domestic stack train with 45 foot domestic containers climb the grade of the loop.

Along the way, the addition of domestic containers changed the scene just a bit whereas before you had only 20 and 40 for ocean boxes that were 8 feet wide and 8 feet high along comes the 45, 48 and 53 foot trailers and domestic containers that can also vary in width from either 8 feet or to 8 feet 6 inches or commonly referred to as "102's" The volume math on this goes something like (3) ocean 40 footers can be packed into (2) 53 foot long by 8'6" domestic boxes, IF, (big if), the internal packaging all aligns.

Most of this progressive development happened simultaneously as the bridge cranes at the major facilities grew is size from covering a few tracks to spanning hundreds of feet and multiple stories high. This allowed things to be further streamlined by allowing containers to be directly stacked into storage for later pick up and not have to wait for a cab and chassis to haul them away immediately. This occurred at both at the ports and the rail to truck facilities. So with the domestic boxes we have eliminated significant amounts of railcar weight and cost, and the truck chassis are waiting at the unloading terminal and mounted onto a tractor trailer chassis for delivery. I cannot even fathom the savings from the reduced tire wear on the truck frame chassis not to mention all the other savings.

So fast forward to today with racks and racks of container frames sitting on their ends at every intermodal facility I have seen. It sure looks like to me like a model railroader solution to having all this frames parked horizontally around the yard.

During a visit to the Belmont Shore Model Railroad Club to gather material for a previous article in *N Scale Railroading*

magazine (Issue #115), I observed exactly the kind of intermodal operation that would one could scarcely dream of years ago.

I watched and was distracted by an excellent operation of some of Kato's fine double stack cars and fresh locomotives run by one of the club members, Jerry Rogers. To be fair, the Belmont Shore is blessed with some hellaciously wide radius curves which allow for such feats of scale railroading. For example, the prototype Tehachapi loop is, depending on who, or how it is measured, comes in at three fourths of a mile from the bridge to the tunnel. This yields about a nine degree curve, very tight radius for the 12 inch to 1 foot world of railroads. Similarly the loop at the Belmont Shore Club is nine degrees as well or 8 feet across yielding a 48 inch radius.

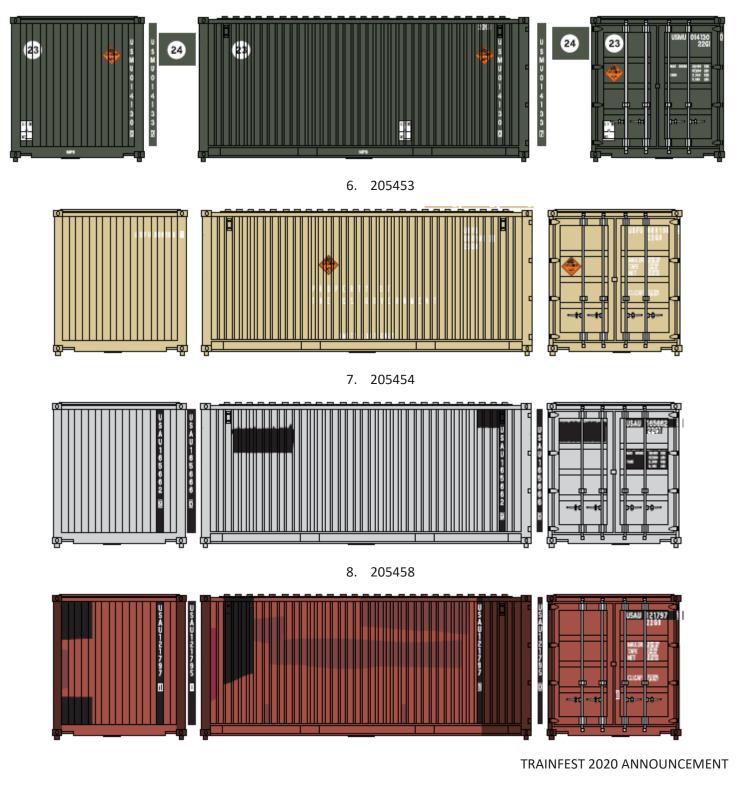
As I was setting up my cameras to try and capture the members depiction of the Tehachapi Loop I was struck at this train orbiting the layout. This was happening without that tension of impending derailment by the operator, Jerry Rogers.

The magic of N scale is emphasized by the ability to operate large, prototype length trains without adjusting, tuning and reworking for hours on a set of cars. There is no need to order your train in any particular way to get them to operate consistently. Jerry states to have not spent any time to get his cars to run to so reliably well, with only repairs to running gear which he admits was mostly his fault. Running a 25-30 foot long train may not be everybody's favorite flavor but if you are able to do so, it is easiest in N Scale. Jerry Rogers and his Kato fleet of equipment makes it look easy.

COMING Q1 2021 - NEW MILITARY CONTAINERS

Artwork designed from prototype photos

5. 205450





Above. 06 Jerry Rogers Mopac/UP commemorative power lead a double stack train out of the tunnel on the Belmont Shore.



Above. 07 The big picture of Jerry Rogers train passes over itself on the Belmont Shore's club loop.



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Above. 08 Full prototype length train running flawlessly, thanks Kato.

I have been bouncing around model trains for 50 years and I remember the siren song of years ago when N scalers would lament, "Oh, if only we had an Athearn in N." Those familiar Athearn H0 locomotives in the hobby shop cases would run great right out of the blue boxes they came in (they run better now as well) causing N scale guys angst.

Today, N scale has just as smooth running products as any other scale or gauge thanks to the precise manufacturing processes and DCC controls. Given the slow speed characteristics and smooth running by the current N scale locomotives Jerry is able to keep his big train moving as he re-rails his cars on to the tracks from his storage box at the club. He is later able to remove them into storage by the same method, without stopping or adjusting the throttle of the engines, wow.

Now that I have declared my love of N Scale for it's size and proportion I continue to bounce off of a theory that I have developed about scale versus over the years. The larger the scale, G gauge at 1:20.3 and the variations of G gauge scales, seems to look better to my eye when operating narrow gauge, pre 1920 era steam, branch line operations, maybe 2 or 3 passenger cars or a half dozen freight cars trundling down a track. Under the heading of full disclosure I do dabble in G gauge outdoors. Moving to H0 to me it looks best with a mid 20th century time period with the venerable steam to diesel transition period. This is just a preference I have grown into I think probably by observing so many H0 layouts set in the period. These layouts look best with some longer trains, 15-25 car freights and 5 to 8 passenger cars. This theory is also limited by the physical size of the respective layouts. The H0 steam locomotives seem to run and look great right.

When it comes to N, my preference is all diesel locomotives, lashed up in multiple unit configurations pulling a bunch of cars over some machine groomed ballast. The central theme for N is, big trains and big power.

This all comes together when we look at something like the contemporary stack trai: Perfectly weighted and balanced for operation in 1:160. Like our prototype examples we can benefit from the articulated trucks between cars and the low slung center of gravity afforded by the model manufacturers' design. Further, the addition of the magnetic catches between the scale container boxes are similar to the Inter Box Connectors that helped propel the prototype. For a guy that has sent countless empty flat cars to their doom by string-lining them through a curve or turnout, and watching them fall a scale 600 feet to the floor, this is a tonic to me.

Side challenge:

Somewhere there is an ambitious N Scale modeler planning a container port or truck to rail operation. This could only be done in N. Think of the possibilities of building a crane that could possibly operate using the magnetic features of the N scale boxes to load and unload cars.

As we sort through this current virus mess and wait for the model railroad clubs to re-open many modelers are rail fanning more prototype operation. I find it spectacular to observe something and then be able to model and operate it successfully, this is what Jerry Rogers and his fellow members of the Belmont Shore Club do, or used to do every week. Let's hope we get back to our shared layouts soon.

N SCALE RAILROADING









NEW 'VISIONARY' SERIES MODELS

Jacksonville Terminal Company, JTC, is introducing a NEW line of products called the Visionary Series, or VS. This is not a new concept to the industry but is new to JTC because we have been mainly focusing on producing prototype models of shipping and transport companies. We want to give modelers the opportunity to have unique models pieces that will be worth talking about in addition to our regular prototype models of shipping and transport companies. This will also open the door for those famous model railroads people admire, talk about and want to have a little piece of history for their own layout or collection.

The extensive amount of research that goes into producing our prototype products usually uncovers years of history and images that will be used to help develop our new product line. We have built our infrastructure of molds to allow for maximum variation to the market and to cover many time frames with these customized products.

Many considerations will be made to make our product look as if it belonged in your modeling world era. Container types, doors, roofs, sides, pantone colors, specific markings, etc. will be utilized to help us achieve a product that could have been realistically available in a past or present timeframe. However, some products will be produced that will allow our graphic artists to work with some perimeters to achieve a totally unique product. An example of this would be our first holiday container which begun from a prototype scheme but has been developed further. Special schemes for shows such as the Gateway2020 would also fall under this product line. And, we have been in contact with some popular model railroad's owners to develop a product that fits their Freelanced model railroad, and that many other 'Freelancers' would appreciate owning. These will be one-of-a-kind collectibles and production quantities will be limited. Maybe you have your own 'Freelance' railroad line that needs container service!

The Visionary Series will initially be sold directly through JTC's website under the Visionary Series and clearly marked on our product labels. There will be a collection page with additional information as we continue to grow this product line. We will distribute to our national distributors or direct dealers upon their request. Our production will be limited so get them while they are hot and in stock!

We are super excited about this product launch and to deliver never seen before products. If you or someone you know has a large following of their personal 'Freelance' line, please share this with them and send them our way as we would like to work with them. This series will also open the door for any clubs or business that would like a special run with custom artwork. Please direct all inquiries to service@jtcmodeltrains.com and have VS or Visionary Series in the subject line. First VS items are N Scale 53' Freelanced Domestic containers that are expected by January 2021. HO Scale will follow. More details coming soon.

These models feature IBC connecting pins and our Magnetic connection system (magnets on bottom; metal plates on top) and are decorated with detailed prototype 'Style' printing.



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Above and Below. 09 & 10 BNSF west of Barstow California hustling at a meet (09) and an eastbound (10).





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Above. 11 Domestic TOFC cut with domestic stacked containers head eastbound from near Goffs, California approaching a westbound.



Above. 12 Container frames standing on end in Los Angeles waiting for their turn. it would make a nice generic backdrop for someone. Taken from Amtrak #763 11/16/2020.

BEAUTY





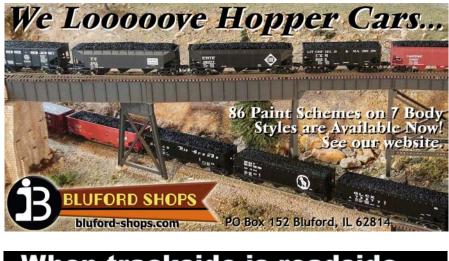
CLICK HERE



Above. 13 Westbound ocean boxes headed for the twin ports of Long Beach/Los Angeles while eastbound domestic stacks wait idle. Fullerton, California Depot 11/16/2020.



Above. 14 Taylor travel bridge crane BNSF yard Los Angeles, CA. from Amtrak #763. ▶





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#127 DECEMBER 2020

Build A TOFC Ramp

Text and Photos by Sandy Smith



Image 01 A simple TOFC ramp can be a whole industry.

Now that we have your interest in N scale intermodal, you can probably build a small ramp. It could be considered a universal industry meaning it could be in any town, region or railroad akin to the other universal industries in Everytown USA, a scrap yard, bulk oil dealer and the team track. If you are not in the active layout build mode you can construct a ramp for later addition to a bigger layout. These small ramps can be found even in the most modern of time periods but become relegated to be a heavy equipment load/unload facility.

In this example I have used an old flat car with the truck on one end removed to fit into the hole to help decrease the slope of the ramp. You can add some soil or fine ballast to aid in the appearance of the transition from ground to ramp. Backing a boat down a ramp on a nice summer afternoon is child's pay compared to backing a trailer UP a ramp with a little snow or ice for fun. So the railroads looked for flatcar types with a side sill that protruded above the decking. The sill provided a curb or guide for trucks backing up. Early on the piggy back revolution quite a few senior railroad executives viewed this intermodal thing a fad and not to be taken seriously hence the sparse facilities such as this. Add a platform along the car for drivers to be able to get out of the truck cab and pull the fifth wheel latch. This platform alongside the car also gave an easier way for the workers securing the trailer hitches to the flat cars to work off of rather than having to shimmy along the edge of

a loaded flatcar. The platform shown here is a concrete block wall from Sid's Sculpts (www.sidsculpts.com) which made the construction of a platform easy. Add a small office or shack for the processing of paperwork and some overhead lights and you are pretty much there. Remember that the graveled lot will be very fine compared to our ballast sizing. Typical RR ballast is an A.R.E.M.A. (American Railway Engineers and Maintenance of Way Association) use a #3 size (3 inches by 1 inch) or a #4 (2 inches by 3/4's of an inch). These ballast sizes scale to a #40 and #50 mesh respectively so I used a prototype 1" minus size rock and which in N is dust or fines. The fines used here came from a building lot, dried and sifted. If you use big chunky rock for the trailer parking lot, be prepared for cut tires and workmen's compensation claims from the model people. Have you seen how tiny their feet are? Even though your ramp may be new construction, keep it gritty, dusty/muddy, weedy, unkempt and give it all an India ink wash to tone it all down. If you can budget, er, build for new construction, add tires scuffs on the pavement with a dark pencil. Some ramps used compressors to power air tools which you could add but I have seen inventive carmen take a broken RR car air hose, add a 1/2" fitting on the end and hose that goes to the frame of the car and connect the glad hand end to the one on the car they were working on. Instant compressed air for your tools without lugging around a compressor. Easy to model with a piece of florist wire or similar painted with your choice of color.



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Image 02. I built this on a piece of foam. Foam is easier to dig out the area to depress the flat car load. Start with digging out an area for the flat car end. Building on a loose piece of foam makes it easier to get the easiest angles to work on the area.



Image 03. Prep the surface with a coat of flat grayish brown. Or brownish gray.



Image 04 Lay a thin coat of glue to secure the track to the foam.



Image 05. Thumb tacks secure the track until the glue dries.



Image 06. Time to prepare the flatcar. I used an Atlas 50' flat and I removed the pair of trainers and the truck off one end.



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Image 07. Preparing to add side guide rails.



Image 09. Heavily stress and weather the side of the flat car.



Image 11. The flatcar is planted into the pit in the foam.



Image 13. Keep adding additional textures like ground foam.



Image 08. Preparing the underside that will be "buried".

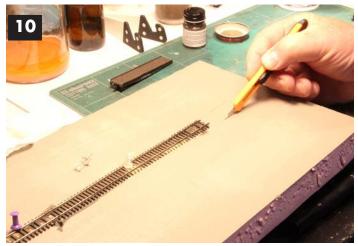


Image 10. Time to mark the area the flat car will be placed.



Image 12. Time to add ballast and 3D scenery.



Image 14. Add a wall or platform to help our miniature drivers and carmen. A left over loading dock from a structure kit also works well. Speaking of leftovers, add a set of steps at the far end of the platform.

N SCALE RAILROADING

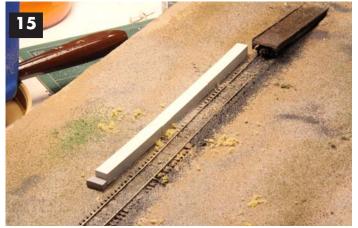


Image 15. A ready industry, with ground cover and weathering, finished to add to bare layout. Management should be happy about generating revenue car loads right away.



Images 17 and 18. The ramp project on the work bench.



Image 16. A ready industry, with ground cover and weathering, finished to add to bare layout. Management should be happy about generating revenue car loads right away.





Image 19. Project set on city section of layout for photography. The block wall and light poles are from www.SidSculpts.com

Rolling Stock Tune Up Two-Step

Text and Images by George Hollwedel

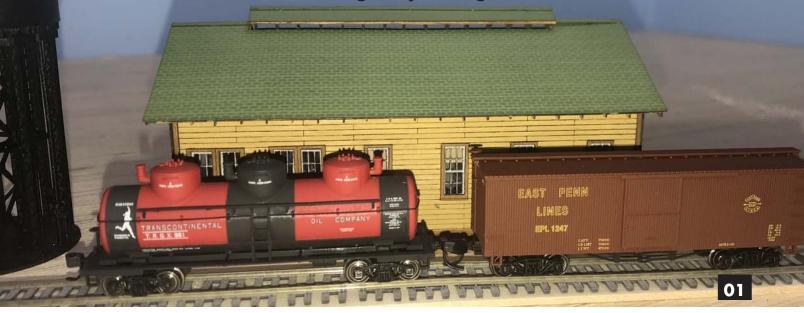


Image 01. The two cars are ready for service.

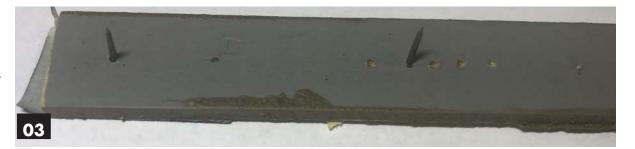
have set certain standards for my layout rolling stock. Each must have at least a coat of Tamiya Flat Clear or be weathered. Each must have body mounted couplers and metal wheels. I have found that body mount couplers are superior for switching operations of which I crave! Many N Scale manufacturers are releasing rolling stock with metal wheels and body mount couplers. This is making my life easier.

In doing some layout prep, I found some interesting things. Bachmann is putting out some nice cars lately. The single and triple dome tank cars are well done, I also have a couple of their 40' gondolas and a PFE reefer. As a bonus they come with body mounted couplers and metal wheels. The only drawback is the Bachmann EZ-Mate coupler. It is larger than the gold standard Micro-Trains coupler. The first time I removed one of these couplers I thought it looked familiar. I had a sample pack of McHenry couplers from some long-ago forgotten train show or convention and the mounting is a dead ringer for the EZ-Mate. Simple job, take the screw out of the cover plate, exchange the coupler, put the cover plate back on! Well, I only had the one sample pack and more Bachmann cars to convert. But wait! I have Athearn cars to do layout prep on too! Athearn cars come with truck mounted McHenry couplers. I need to cut them off since I body mount and viola, I have a donor for my Bachmann cars. So now I grab two cars at a time to do layout prep. I first take an Athearn car, remove the trucks, cut off the coupler, install Micro-Trains 1015 coupler on the body and finally reinstall the trucks with metal wheels. Of course, the body gets a light spraying of Tamiya Flat Clear paint before the couplers are installed. In the meantime, I have removed the trucks and couplers from my Bachmann car and sprayed the body with the flat clear. When the body is dry, I swap in the McHenry couplers and reinstall the trucks and have two cars ready for service on the layout.



Image 02. Here are the two cars with the offending details shown.

Image 03. This is my cheapo paint stand for shooting the flat clear. It is adjustable for car length, just pull the nail and put it in the proper hole, all set.



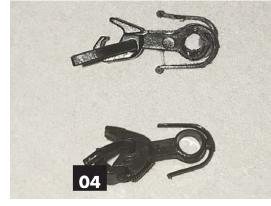


Image 05. Before and after Athearn trucks. I found Intermountain 60070 metal wheel sets work for these trucks.

05

Image 04. The McHenry coupuler is on top, the EZ-Mate coupler is on bottom.



Image 06. The Bachmann tank car mounted on stand ready for flat clear.

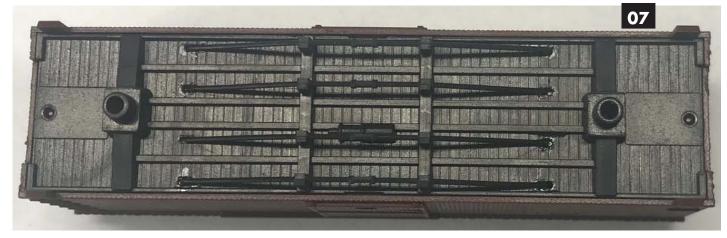


Image 07. This is an Athearn 36' wood sheathed box car. It has dimpled holes ready to drill and tap for installing Micro-Trains couplers. **)**

N SCALE RAILROADING

TT & TO Operations Go Modular

Operating on the americaN FREMO Module Layou

Text and Photos by Peter Gössel, Hagen Langbartels, Heiko Rosemann, Wolfgang Thede, Dirk Warwel

Above. A Northern Pacific reefer extra rounds the curve at the Sussex quarry. The opposing local extra has his meet in the next station and waits there for the arrival of this fast train.

NP 5101 is a Z6 Challenger, built for the Northern Pacific in 1936. After 5101 was rebuilt with roller bearings on the drive axles in 1939 it could comfortably operate up to 60 miles an hour, so it was used for fast freight

Who We Are

The americaN chapter of FREMO has been active since 2003, building modules following North American prototypes in N scale and jointly operating them at meetings. Our modular standard is flexible regarding module size and shape, as long as the end plates are 400 mm wide. The single track is centered at the end plate, has a right angle to it, and is 1,300 mm (roughly

service like reefer extras.

The model was designed in Japan by More Co and manufactured in Korea by LIK Enterprise Inc. Dirk had the good fortune to buy this engine from Mr. More himself in 2004 at his tiny hobby store in Tokyo. Dirk has since added a Digitrax decoder with "keep-alive" and applied some light weathering.

51 inches) above the floor. Two mounting holes and two electrical connectors for track power and DCC ensure technical compatibility. A few other regulations—like Code 55 or lower profiles, roadbed and ballast colors, flat terrain shape and 1,000 mm (40 inches) minimum radius—help us achieve a uniform look in our arrangements. Based on these simple standards, we have created a great variety of modules built for operations. http://www.america-n.de

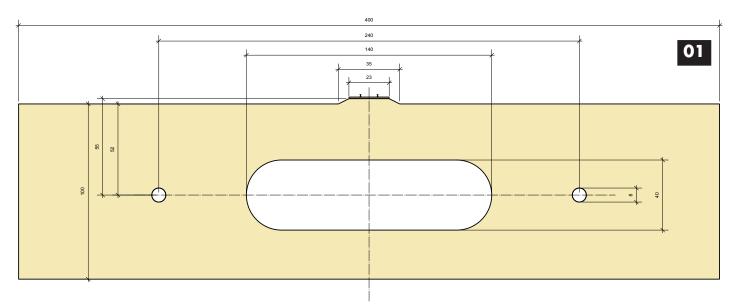




Image 01. A drawing of the standard americaN module end plate

Image 02 The meeting room with the layout arranged for this operating session. The backdrops still have to be fixed on the frames.

We'll Meet Again

Before Corona, we used to organize four to seven meetings per year in our americaN group, compared to about 80–90 meetings per year all over FREMO. The arrangement planner picks the modules from what each participant offers and arranges these on a CAD plan to suit the space available. This allows us to operate large layouts, substantially larger than most of us could ever hope to create on their own. It is very uncommon for European homes to provide the space required by US-style basement empires. This system creates a great variety of operations since no two arrangements are the same. We gladly invest the time to set up and tear down our layouts, which takes away about one whole day from the four or five meeting days. We rarely set up show running americaN layouts for the general public, but those, of course, help us promote the hobby.

Which Era?

Our standard does not specify an era that we model, but we

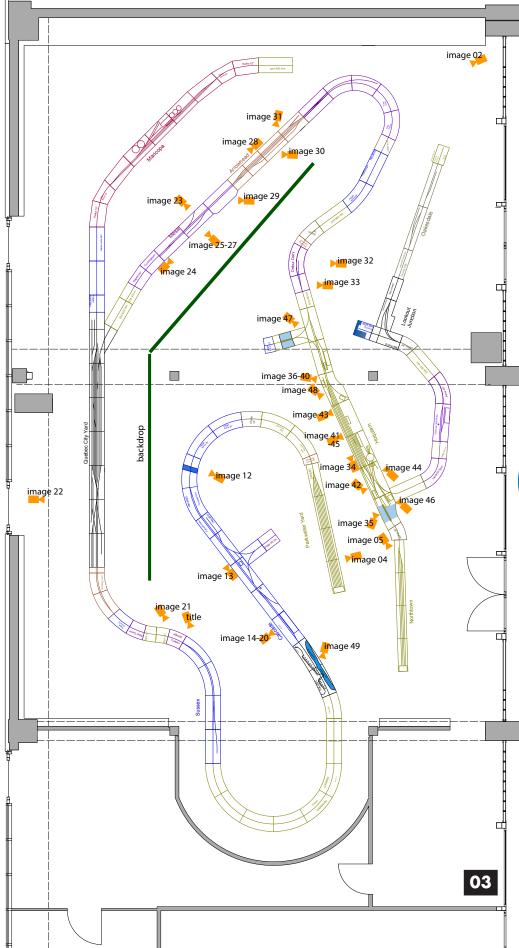
do define a time span for every meeting. For the first couple of years, diesel engines and rolling stock from the 1960s and 1970s were the norm. Traffic was regulated by track warrant control using 2-way radios. Today, we also put together modern arrangements, as well as steam era layouts. Some modules even have CTC controlled signals for their sidings.

From TWC to TT & TO

In issue 048 of *N Scale Railroading*, we described how a dispatcher located remotely actually controlled traffic flow by issuing track warrants and by having crews report back via radio only.

Since, at some of our meetings, we wanted to run steam era rolling stock, including prototypical use of water towers, our "traditional" track warrant control did not seem appropriate. So, beginning in 2016, we experimented with timetable and train order operations, putting some trains on the timetable and dispatching other trains as extras, thus lessening our dispatcher's workload.

The text continues on page 36



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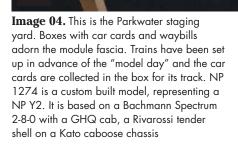
Image 03. CAD software is used to arrange our participants' modules in a way that fits the space available. Based on that, we devise an operating concept that defines scheduled trains as well as extras, length restrictions and individual jobs for the participants.



FREMO – Friendship of European Railway Modelers—is an association of European model railroaders joining forces to build modular arrangements and operate them together following prototypical practice. The founding cell of what, today, is a club joining more than 2,000 model railroaders from all over Europe modeling a multitude of prototypes in scales ranging from N scale to I scale—all with a focus on operations on modules, was a small group of 17 H0 scale German Railways modelers who formed this association in response to a letter to the editor in the January 1981 issue of Model Railroader magazine. https://www.fremo-net.eu



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04

Image 05. Trains are set up at Northtown, the western end of the line. Since our end yards are staging yards, they are neither ballasted nor scenicked. Engines from left to right: BLI GN 2-8-2 Heavy Mikado Bachmann DT&I 2-10-2 Kato UP 2-8-2 Heavy Mikado Model Power UP 2-8-2 Light Mikado

A DT&I 2-10-2 between NP, GN and UP Power? In 1917 the NP was asked by the USRA test 4 Ann Arbor Light 2-10-2s. The NP did just that, but found that their Heavy Mikado more suitable for their needs. The 2-10-2s were returned to the Ann Arbor. We could not find an Ann Arbor engine, so we used a DT&I to simulate that test.



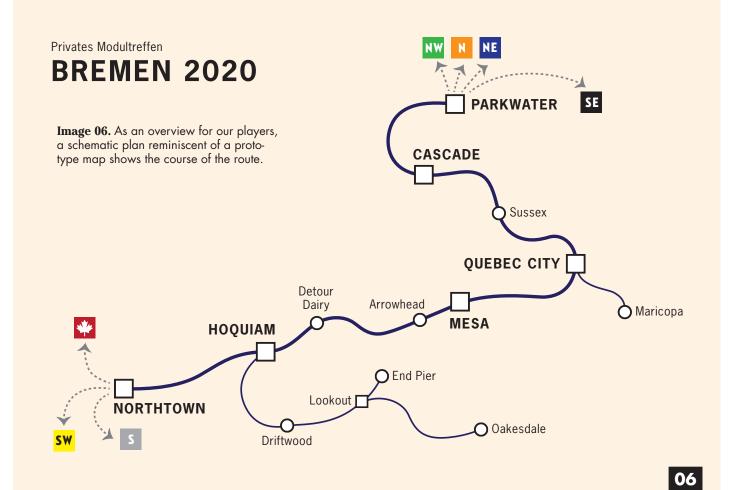




Image 07. Sitting at his desk, the dispatcher issues train orders and clearance cards to the crews.

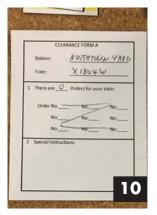
TIME TABLE 36C

To be used in conjunction with the Engineer's Rulebook and Special Instructions currently in effect.

WESTWARD				Third Subdivision	EASTWARD				
		-HIGGAN			Time Table 36C	First Class		Second Class	
	Car Capacity of Siding		9 Passenger Daily	5 Passenger Daily	8-Oct-55 S T A T I O N S	4 Passenger Daily	8 Passenger Daily	32 Passenger Daily	
READ DOWN	Yard		10:50	7:10	Parkwater	7:43	10:35		READ UP
	30	8:05	10:58	7:18	Cascade	7:40	10:32	10:23	
	27	8:28	11:16	7:36 4	Quebec City	7:27 5	10:19	10:10	
	54	8:37	11:18	7:38	Mesa	7:16	10:06	9:56	
	39	8:56	11:29	7:49	Hoquiam	7:11	10:01	9:42	
	Yard	Ţ	11:30	7:50	Northtown	7:00	9:55	Î	
	7	9:01			Oakesdale			9:30	

Images 08 - 11 A printed timetable is handed out to all players. Since scheduled trains are outside the dispatcher's focus, it is the task of train crews to make sure that the line is clear. Knowledge of the timetable, proper train register entries, and adherence to train orders that accompany the clearance card issued by the dispatcher, are mandatory.





Rule 71

A train is superior to another train by "Right", "Class" and "Direction". Right is granted by Train Order. Class and Direction is granted by the time-table.

Extra trains are inferior to regular trains.

Rule 82

Time-table schedules, unless fulfilled, are in effect for 3 hours after their time at each station.

Regular trains more than 3 hours behind either their scheduled leaving time at any station lose both right and schedule, and can thereafter proceed only as Extras.

Rule 83

= ENGINEER'S RULEBOOK =

A train must not leave a station until it has been verified if all superior trains have arrived or left. Stations at which train registers are located will be designated by time-table in bold.

You must check the train register at register stations.

Rule 83A

A train must not leave its initial station without a train order or clearance card.

Rule 86

An inferior train must be clear at the time a superior train in the same direction is leaving the station in the rear.

Rule 87

08

An inferior train must keep out of the way of opposing superior trains.

Rule 89

At meeting points the inferior train must take the siding.

Rule 92

A train must not leave a station in advance of its schedule leaving time.

Rule 99

When a train stops under circumstances in which it may be overtaken by another train, the flagman must go back immediately with flagman's signals a sufficient distance to insure full protection.



Image 12 Today we will follow (Extra) X-1804, a local freight train. X-1804 is crossing the bridge between the Staging Yard and Cascade, its first station.

Large backdrops, printed digitally, not only provide a perfect illusion but also prevent crews from cheating by looking ahead and thus fouling the TT&TO System.

Northern Pacific 1804 is a Class W3 Mikado. The Mikado was the all-around workhorse of the NP with over 350 engines in 6 classes. NP

Extra Hardware, Extra Work

We are quite happy with this operating scheme, although it requires some extra hardware, and it demands quite a bit more work. Most obvious, a timetable and a clock system are required, so that every train crew knows which scheduled trains to keep clear of. Operations boards at certain stations mimic the role of station agents. This way, the dispatcher can contact a train crew by remotely turning on a red light, like a train order signal. The train crew then contacts dispatch through "telegraph", for which we use the two-way radios. All trains passing need to document their time of departure in a train register, thereby allowing the crews of extra trains to determine whether it's safe to enter the mainline. So far we have not used fast clocks. Our timetable starts at 6 or 7 a.m. and runs until about 11 a.m. at real time speed. A small battery powered WiFi device picks up the time signal transmitted by a JMRI web server and drives modified quartz clocks. The dispatcher can thus start and stop the clocks at will. He could also change the clock rate, but, as said, we haven't tried that out yet. https://newHeiko.github.io/WiFi-JMRI-Clock

purchased 135 engines in the W3 class in 4 orders between 1913 and 1920. 1804 was built in 1918 by Alco as part of the third order and served the NP until 1959.

The model is a GHQ kit on a Kato Mikado mechanism. The excellent GHQ kit includes enough parts to build any W3 versions, so it helps to study photos to get the details correct. It has a Digitrax decoder in the tender and traction tires on the rear axle. The cast metal boiler adds enough weight that 1804 can pull 60 cars.

How We Operate

Each module owner creates a set of waybills specifying inbound and outbound cars that each of his railroad customers has ordered. The traffic planner defines which trains will move the requested cars from the outside world (a staging yard) to the customers and back. Participants make their rolling stock available close to the staging yards, every freight car accompanied by a car card. At the beginning of each operating session, each waybill, already sorted into a stack belonging to a particular train or to a customer, has to be assigned to an appropriate car. Outbound cars will then be placed at a customer's spur, inbound cars will be assembled into trains on one of the staging yard tracks, obeying blocking instructions.

No Chance To Cheat!

To really get into the game, we put up anti-cheating walls, so train crews really don't see what's moving towards them. The first generation was simple black curtains, but, as the pictures show, printed photo back¬drops do a much better job.

Ready To Roll?

Join us again when we experience all these features by following an extra train across a layout. ▶

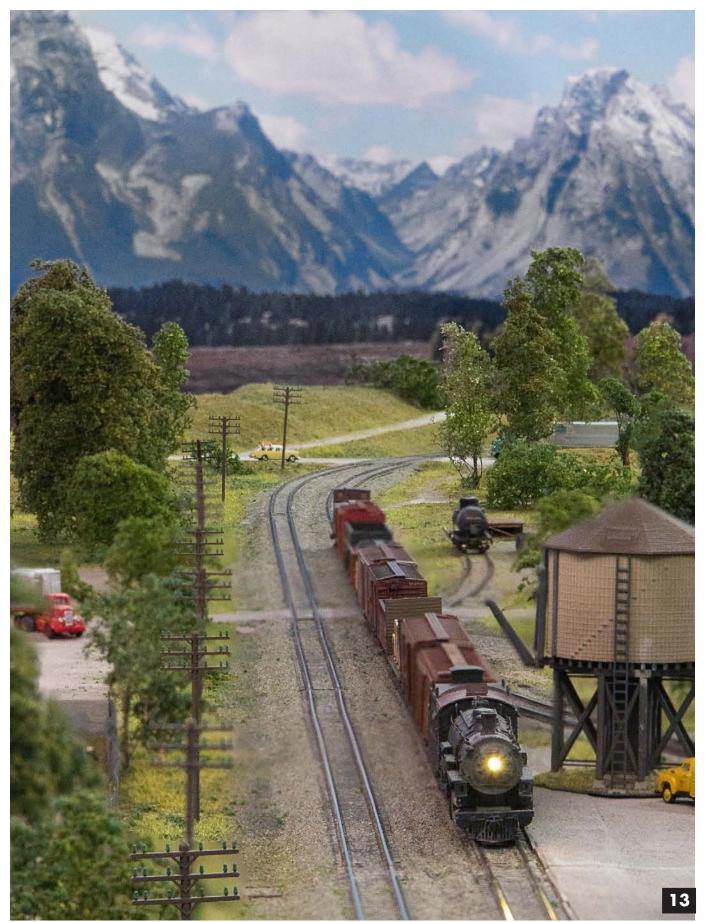


Image 13. Arriving at Cascade. The stopwatch carried along beeps to notify the crew that 1804 is running low on water and it's time to take on water for the first time.

Image 14-19.

Cascade is the place where the first switching task awaits the crew. This station follows its namesake prototype in Idaho and, like the prototype, it is situated on the Payette River. Logging is a major industry here, so several empties must be spotted on the spur at Hallack & Howard Lumber. We leave the loaded cars for our return trip.

Image 14. Upon arrival we check the paperwork.

Since switching Cascade requires blocking the main, the engineer checks for any imminent timetable trains.

Image 15. The cars are uncoupled.

Image 16. The engine pulls forward with the cars that are going to be spotted.

Image 17. The engines pushes the cars back towards to the warehouse and spots them for the customer's convenience. CASCADE CASCADE







Image 18. The locomotive is cut from the string of cars and moves forward to clear the turnout.



Image 19. The locomotive reverses to couple to the remaining cars and the train is now ready to depart for the next destination. The conductor will have to consult the time table and train orders before authorizing the engineer to proceed.





Image 20. This is the operations board at Cascade with all the necessary equipment: The hourglass indicates the time required for the tender to fill up water.

A two-way radio takes the place of the telegraph which Cascade features, since it has a depot.

Next to it, we see the car cards for the two cars to be spotted here at Hallack & Howard Lumber.

As we proceed, our departure time will be documented in the Train Register, so that other crews know that our train has passed. Even scheduled trains can be late, and if they are not "on sheet", extras will have to wait for them before they can block the main here or continue towards Sussex.



Image 21. Even though a car has to be spotted at Sussex quarry, we will leave that for our return trip.



Image 22. Our train passes through the large yard at Quebec City. A Reefer Express train, pulled by a Challenger, can be seen in the foreground.



Image 23. X-1719 East is on the siding at Mesa. As an eastbound he is inferior to our westbound X-1804, so according to rule 89 (see image 10) he has correctly chosen to use the siding to meet X-1804. Both of the W class heavy Mikados are GHQ kits with Kato USRA 2-8-2s mechanisms.



Image 24. Mesa has a long siding and a location where many meets and overtakes can occur. We can even continue switching if we keep the main clear for imminent timetable trains.

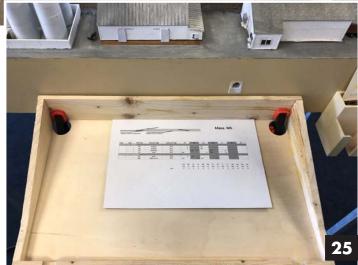


Image 25. Station Data Sheets inform us about the positions of spurs and the number of cars to be set out and to be picked up.

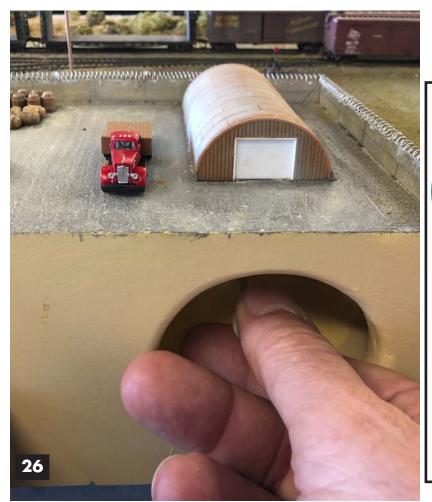


Image 26. Most turnouts on our modules are operated manually. The handles are recessed to avoid damage during transport.



FR reundeskreisE uropäischerMO delleisenbahner

FR iendship of E uropean MO del railroaders

Within FREMO there are multiple sub-groups for various scales, time-frames and geographies... Here is an overview on the multitude of groups https://www.fremo-net.eu/en/modular-systems/ So we are the americaN group of FREMO



Image 27. An example of a turnout with a 3D-printed switch stand.



Image 28. After we finished taking on water at Arrowhead and begin heading into the spur to service the large elevator at Arrowhead, a 1st class passenger train passes us on the mainline. Good thing our conductor had his eyes on the timetable, so he knew it was coming and kept us off the main!



Image 29. The track plan and the buildings at Mesa closely follow their prototypes in the State of Washington.



Image 30. On the elevator spur at Arrowhead, our local can keep clear of the main and the FEF-3 pulling a passenger train past us. NP 1719 is an NP W3 heavy Mikado. Union Pacific 844 is a Kato 4-8-4 Northern.

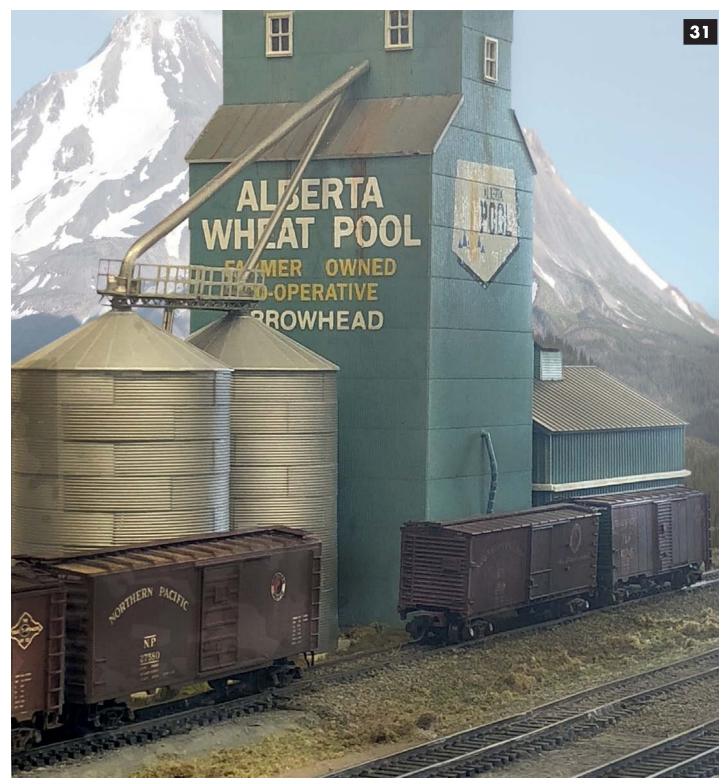


Image 31. Before we proceed, our local must spot a car at the smaller Alberta Wheat Pool elevator on the other side of the main. This picture illustrates how we often mix and match locations across the continent by combining different modules into an individual arrangement. It may well happen that a spur following a Canadian prototype is situated in the middle of a town in the State of Washington. Arranging the modules differently during each train show allows us to have a new and fresh operating system every time we set up and operate.

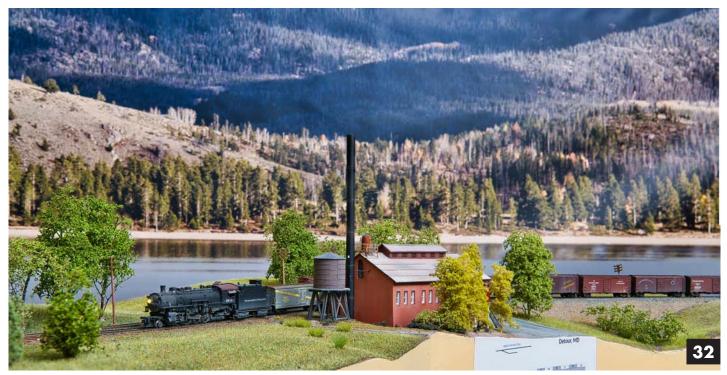


Image 32 and 33. The small town of Detour does not have a depot but there is a creamery where we have to pick up an empty milk car. This is evident to us since the car card in the box does not have a waybill any more. Its car card is green, since the car was brought into town on a fast passenger train to prevent the load from going bad.

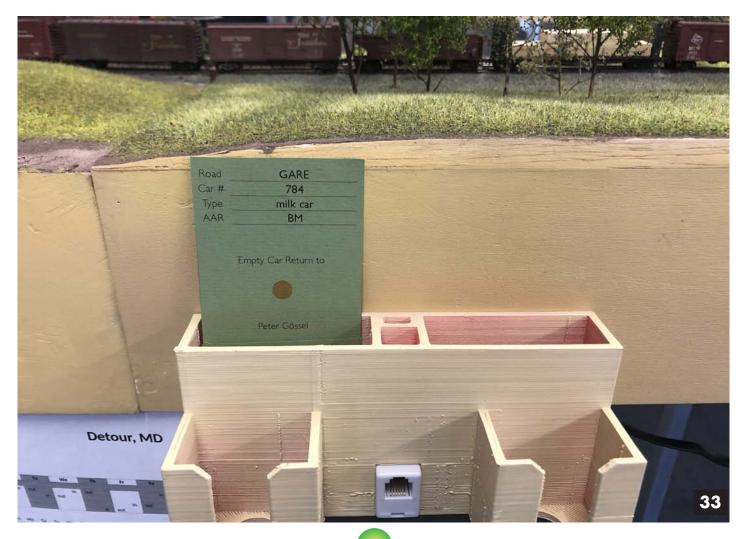






Image 34. Hoquiam's sizeable yard is the home of a large number of industries, mostly timber companies. Several branches divert from here, but, for X-1804, this is as far as we go before returning to Parkwater Yard. But first we will switch Hoquiam's industries and turn the locomotive. Hoquiam offers both a turntable and a wye to accomplish that.

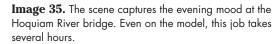
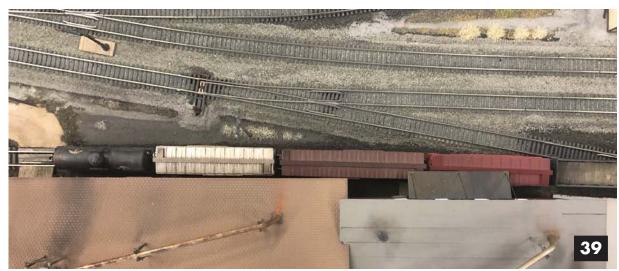






Image 36.

Spotting a tank car at Blagen Mill. Since the spot for tank cars is at the far end of the spur, we must first pull the cars spotted at the warehouse. Image 37. We move the tank car to the side to keep it clear for spotting. Image 38. We grab the string of cars on the siding



and then add the tanker to the rear of the train. Image 39. Now we can move forward, throw the switch, and push the train to spot the tank car at the end of the siding and return the boxcars to their original locations in front of the warehouse.





Image 40. Done. The tank car has reached its proper spot.

Image 41. Until switch-ing is done, we temporar-ily park the cars that we will take back to Parkwater. This way, we move fewer cars while switching.



Image 42. West Coast Plywood is yet another customer to receive a boxcar.



Image 43. In order to better keep track of things, it has become good practice to use a sorting board to line up car cards with their waybills in the same order as in the train. This way, all necessary tasks can be seen at a glance, and the ideal sequence of moves can be determined easily. On the prototype this was done on the conductor's desk in the caboose.

N SCALE RAILROADING

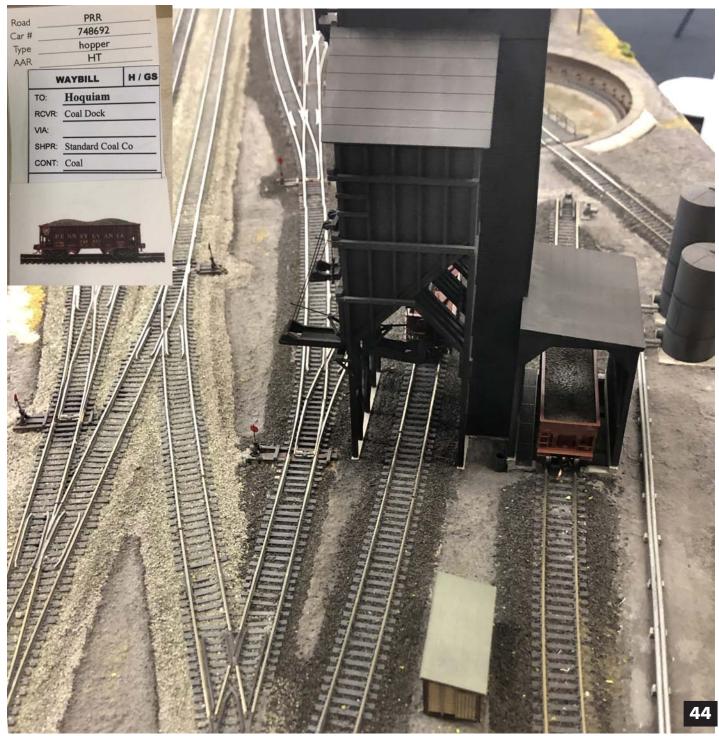


Image 44. On the upper left is the car card for the coal hopper with the waybill that brought this load to the coaling tower. The car is spotted at the coal dock, accessible only by a zigzag move. This move takes us a little way down the branchline towards the little terminal depot of Oakesdale.

It is unusual to see a Pennsylvania hopper in Northern Pacific coal service, but each member of our group has favorite prototypes and brings their cars to our operating sessions. All cars are placed in a common pool from which they can be selected. We do make an effort to run all trains on a division with engines from the same company.

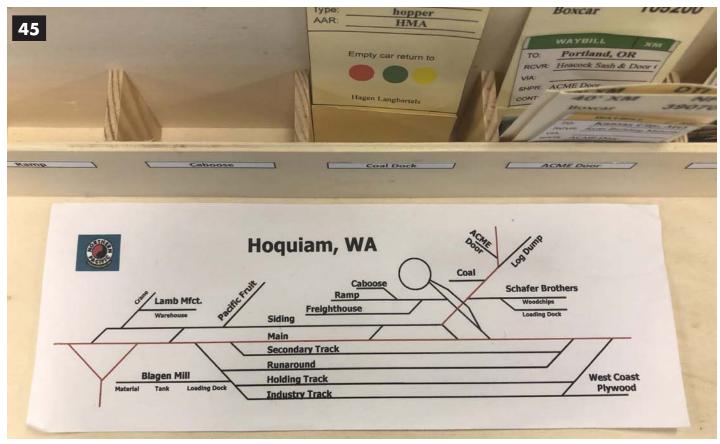


Image 45. A station diagram informs crew members not so familiar with this module where each spur can be found.



Image 46. Schafer Brothers receives two empty woodchip cars. We will not pick up the loaded cars, since taking them with us would exceed maximum train length permitted.



Image 47. Before we head back towards Parkwater, our engine must fill up water supplies and needs to be turned on the wye.

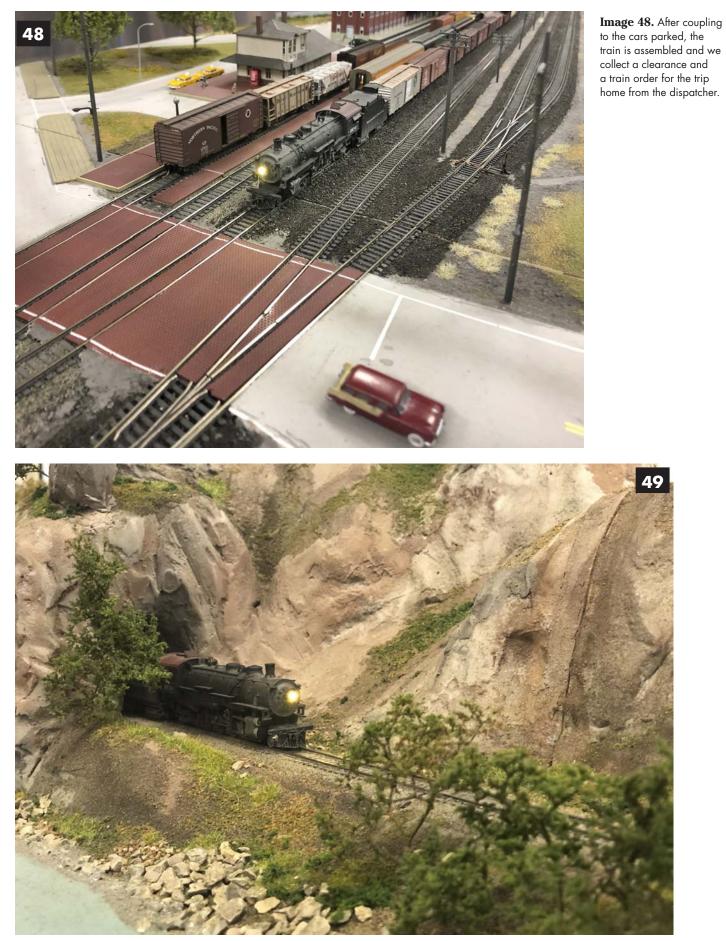


Image 49. Passing through a tunnel alongside Payette River is #1804 on the return run. \blacktriangleright

TRAVEL GUIDE N EVENTS

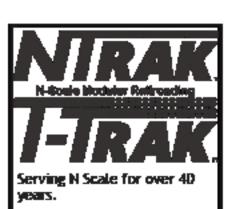
2021 MAY 15-16 OH Hilliard/ Columbus area. 12th Annual Ohio N-scale Weekend at the Franklin County Fairgrounds, 4100 Columbia St., Hilliard, OH http://www.centralohiontrak.org/

2021 JUN 22/23-27 NV Sparks/ Reno area. Postponed to 2023.

Expected:

2022 JUN ??-?? TN Nashville. 28th Annual National N Scale Convention

2023 JUN ??-?? NV Sparks/ Reno area. 29th Annual National N Scale Convention. ♪



Membership, \$5 per year, includes 6 issues of the NTRAK. Newsletter.







Bluford Shops is expecting in 2021 JAN the 3-Bay Offset Side Hoppers in: Baltimore & Ohio, Burlington black, Missouri Pacific, Canadian National, Grand Trunk Western, The Rock, Union Railroad, Blue Coal, C&NW-Omaha Road, Illinois Central Gulf, Southern and Chicago Great Western. Arriving at the same time are Converted Wood Chip Hoppers in Boston & Maine, Kansas City Southern, Cotton Belt, Canadian Pacific script, Canadian National, Georgia Railroad, Illinois Central, Milwaukee Road, CP Rail and Missouri Pacific. They can be seen on their website www.bluford-shops.com .

KATO USA. 2021 should see a new run of the Southern Pacific GS-4 4-8-4 in the postwar black scheme. DCC and sound versions can also be ordered through retailers. This is a **conditional** project that depends on enough pre-orders by December 30, 2020.

ConCor. New is a 2-pack of a Christmas and a New Year containers.

Jacksonville Terminal Com-

pany has a new "Visionary" program of special runs of containers decorated for specific model railroads. See page 15. These guys do good work!

DBSERVATIONS Thoughts by Kirk Reddie

2020 has not been anyone's favorite year but I am very grateful to the readers, contributors, and advertisers for the digital version of **NSR**!

All our necessary for **NSR** to become what we want in a free monthly download. Tweaks have been gradual but great things are planned.

SEE YOU NEXT ISSUE!

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∧ore good stuff! Lots of structures are penciled in. ▶