THE ULTIMATE GUIDE 2022

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On the cover
Lee Marsh captured this scene on his HO Great Northern layout. In his article on page 12, Lee shares his secrets for better layout photography.

North country iron
Hans Schlegel’s ore-hauling HO scale masterpiece.
Hauling iron ore in the north country
This 23 x 27-foot HO scale layout re-creates the Gogebic Iron Range in the steam-to-diesel transition era

By Hans Schlegel
Photos by Cody Grivno

Though I started work on my 23 x 27-foot HO scale Gogebic Iron Range Lines in the early 2000s, my fascination with trains dates back to the 1950s and ’60s. I was raised in the near north side of Chicago, where tracks crisscrossed the neighborhoods. My favorite places to explore were the Milwaukee Road’s Bloomingdale Avenue high line and the Kingsbury Street branch, the latter featuring street running. The Chicago & North Western (C&NW) Northwest commuter lines from the downtown terminal split at Clybourn Avenue and provided plenty of action as viewed from the classroom windows at my grade school.
No doubt you’ve heard the phrase, “Work smarter, not harder.” And that’s exactly what these smart Off the Rails tips let you do. If you want to see them in action, take a look at the Off the Rails episodes mentioned in each tip. You’ll find them – and all the episodes – on Trains.com.

By Gerry Leone

Take the heat off

**When soldering**, the idea is to do it quickly so you don’t damage the parts. But sometimes stuff just doesn’t want to be soldered quickly. What you need is a “heat sink.” And the quickest, cheapest one you can possibly use is a piece of wet facial tissue. Plunk a piece on both sides of where the solder will be applied, or on the wires, and it’ll keep that heat from doing any damage. (Episode 53)

A perfect pickup

**Spikes, nails, and other pieces** of metal lost between the rails can wreak havoc with locomotives if they happen to get picked up by the motor. You can solve this issue by making a simple modification to a piece of rolling stock. Glue a magnet or two to the bottom of a flatcar and let the car pick the stuff up. Clean off the magnet every now and then! (Episode 53)

A corner on the market

**It’s not always easy** to get a perfect 90-degree corner when you’re building a structure. But your kids’ or grandkids’ Lego blocks can help. They snap together in perfect 90-degree corners. Just build a form to rest your building walls against and glue the walls together. Be careful not to glue them to the Legos! (Episode 51)

No penalty for clipping

**Have a hill on your layout** where cars won’t stand still? A mini-dollhouse clothespin makes a great, inexpensive hill brake. Find them at most craft stores. Sand the “nose” so the “teeth” grab the web of the rail then keep ‘em handy by storing them on uncoupling skewers! (Episode 51)
You’ll find the perfect bottle for dripping diluted white glue or rubbing alcohol on to your ground foam or ballast at Sally Beauty Supply. The Harmon Face Values 4-ounce bottle has a twist-open cap, letting you get the perfect amount of flow for your project. If you don’t have a Sally Beauty Supply near you, visit the store’s website, sallybeauty.com. (Episode 46)

If regular soldering is difficult, soldering wire to surface-mount light-emitting diodes (LEDs) is really tedious. Make it easier on yourself by investing in an LED/wire holding tool (no. NT301) from ngineering.com. It holds even nano LEDs and wire in place so you can simply touch the soldering iron to the LED and wire to secure it. (Episode 45)

Make structure and other lights easy to remove from the layout by using spare small pieces of rail and rail joiners. Mount the rail inside the structure and connect the joiners to the power. Slide the joiners on the rails to connect the lights; slide ‘em off to remove the structure. (Episode 35)

Are locomotives or cars shorting on the sides of the points or frog of turnouts? Put some clear (or brown) nail polish on the offending rail. Nail polish is built to be tough. It’ll stand up to train wheels bumping it for a long, long time. If the polish wears off, just apply some more. (Episode 13) 

Do the twist

You’ll find the perfect bottle for dripping diluted white glue or rubbing alcohol on to your ground foam or ballast at Sally Beauty Supply. The Harmon Face Values 4-ounce bottle has a twist-open cap, letting you get the perfect amount of flow for your project. If you don’t have a Sally Beauty Supply near you, visit the store’s website, sallybeauty.com. (Episode 46)

You usually need three hands when soldering at your workbench. But not if you buy special self-closing soldering tweezers. This tool will keep your wires steady, letting you hold the soldering iron and solder. The tweezers are also referred to as cross locking, and are available with or without a stand from most electronics suppliers. (Episode 45)

It’s hard to hang on to grab irons (or figures) when you’re painting them. But try sticking them into a soft eraser or a piece of cork and it’ll be much easier to give ‘em a paint job. In this photo you can see a grab iron at the left edge of the eraser. I used a drill bit in a pin vise to make a hole in the bottom of the figure. I attached the brass wire with cyanoacrylate adhesive. (Episode 43)

Put it in a cork!

You deserve a hand

Tiny and tedious gets tamed

On the rails

Polish your shorts
**Amtrak Hiawatha No. 334**
Miles: 86
Duration: 1¼ hours
Stops: Milwaukee airport–Chicago

Beginning a journey from Milwaukee is simple. But based on the timing of trains arriving into Chicago, Amtrak’s hub for most long-distance routes, you can find yourself without an immediate option for rail transit back to the MKE depot. Consequently, I prefer to originate rail travel from the MKA airport station, where long-term station parking is practical and various modes of ground transport are plentiful. And if a trip truly derails, return flights to General Mitchell International Airport also abound.

**Amtrak Texas Eagle No. 21**
Miles: 1,306
Duration: 32 hours
Stops: Chicago-St. Louis-San Antonio

Only aboard the Texas Eagle and Sunset Limited trains could we route through the Gateway to the West, then along the U.S./Mexico border. Despite some notably absent amenities (sans Superliner Sightseer Lounge) and the sketchy on-time performance of these trains, we still opted for a maiden voyage along this indirect path across the Southwest. Although in doing so, I’d regret defying my top, long-distance travel tenet: never book a same-day transit connection! My wife, son, and I, along with my parents, had barely settled into our respective Superliner sleeper accommodations when wicked weather sidetracked our train in suburban Chicago. Thankfully, a few more hands of UNO and a first-seating dinner reservation diverted focus from the growing delay. Even with limited meal options on this segment, my boxed bowl of beef, bottle of red, and superb table service left me more satisfied than I expected. However, no amount of dessert offerings could improve the odds of locking couplers with our connecting train at San Antonio, Texas. Luckily, comparable freight train delays for the westbound Sunset restored our good fortune and timely progress toward the Pacific Coast! 

**Amtrak Sunset Limited No. 1**
Miles: 1,995
Duration: 48 hours
Stops: New Orleans-San Antonio-Los Angeles

While my parents deboarded at their intended destination, the rest of us slept soundly through the San Antonio stop. We woke early for fresh fruit, Texas toast, and even bigger vistas observed from one of Amtrak’s most underrated rides. On this southernmost passenger route of the network, we brushed against the Mexican border at El Paso, Texas. But soon after that, we’d find typically arid desert scenes completely saturated by torrential downpours. Prickly pear floating in
ponds of water, oh my! Nevertheless, the remarkable sights, onboard service, and train schedule all kept pace, at least until we reached the Golden State.

Onboard adventure was always the primary purpose for our Amtrak trek. Still, that didn’t stop us from making the most of one full day in the Bay. Our rental ride would help us head north to Napa Valley Wine Train rails, and then west to Muir Woods trails. After crossing the Golden Gate Bridge, cresting the hills of San Francisco via cable car, and saluting the sea lions at Pier 39, we ended the day at our trackside hotel in Emeryville. Given the agency’s proximity to the EMY station platform, returning the rental couldn’t have been easier. Then, from the comfort of a Superliner sleeper, we prepared for the slow ascent up and over the smoke-filled Sierra range. Progress would be waylaid at Winnemucca, Nevada, for our idled operating crew. But we’d complete the trip home as local casino winners, most deserving of a pan-roasted chicken dinner!

When a previously postponed surgery could no longer be deferred, I feared my cross-country tour would come to an end. But a rapid recovery and the availability of a handicap accessible bedroom put the concluding trek back on track. After a weekend in the burbs, my wife and I boarded an MBTA bi-level to Boston’s South Station, where Amtrak Metropolitan Lounge and Viewliner amenities awaited. From a berth designated for passengers with documented disabilities, I’d come to appreciate the attached, walker-width bathroom; wide, lower-level bunk; and the double-window vista putting New England’s fall foliage on full display. And at Albany, New York, the maneuvers of Amtrak’s connecting Empire Service trains would continue to entertain. But as we retired from the luxurious, new Viewliner Diner, I eagerly anticipated the moment when our route to Buffalo, New York, would draw us close to the U.S./Canada border. Only then, could I finally deem my coast-to-coast, border-to-border Amtrak 50th anniversary quest a complete success!

Amtrak Hiawatha
Milwaukee-Chicago

Amtrak Lake Shore Limited No. 449
Miles: 1018
Duration: 22 hours
Stops: Boston-Buffalo-Chicago

Amtrak Hiawatha No. 14
ANNULLED
Miles: 1,377
Duration: 35 hours
Stops: Los Angeles-Emeryville-Seattle

Amtrak Texas Eagle
Albany

Amtrak California Zephyr No. 6
Miles: 2,438
Duration: 51 hours
Stops: Emeryville-Denver-Chicago