THE BRASS POUNDER

Newsletter of the Carolina Southern Division 12, Mid-Eastern Region, National Model Railroad Association

Volume 19 Number 11 November 2019

Superintendent's Corner

By Alan Hardee

Well, we have reached November which is National Model Railroading Month. There are several local activities during November that you can participate in. The 2019 Southern Christmas Show in Charlotte will open on Nov. 13th and run through Nov. 24th. Most of you know that my local club, Metrolina Model Railroaders, has their modular layout on display during this show. Setup of the layout begins Nov. 9th. This show covers a lot of time and will need a lot of volunteer help to operate the layout and answer plenty of questions from the more than 120,000 visitors. I am not doing the schedule for the show this year but most of you have already received an email from another CSD member Andrew Sadler about this year's schedule.

I want to Thank Neal for putting together a great layout visit for our October meeting. We visited the Southern Piedmont Live Steamers in Oakboro. This is a 7 ½ inch gauge track that Neal runs his scratch built locomotive and cars on. Everyone enjoyed taking the controls of these great little locomotives and turning a few laps. A surprise visit from a real live steamer was a great sight to see. We watched as the owner fired it up using real coal.

I had planned on giving a report on this year's MER Convention in King of Prussia, Pa. Unfortunately, I had to cancel at the last minute due to a family medical emergency. I even went by the hospital again with all my gear packed and loaded before making my decision. I was the primary caregiver, and had to stay in town to finally make a difficult decision to move to Hospice. Thank You to all that called and sent prayers and condolences on the passing of a member of my family.

Editor's note: Although Alan wasn't able to provide his report on the MER 2019 Convention, fellow CSD Member Michele Chance wrote an excellent article which appears on page 31 of the MER's Newsletter, The Local.

Division Coming Events
(See CSD Website for further details)

As usual, CSD will not have a meeting during the month of December. Wishing all of you a safe and enjoyable holiday season.

Wade's Train Town Open House
Saturday Dec 14th
10:00am – 2:00pm
Brookford Community Bldg
1700 S Center St.
Hickory, NC

RMU 2020
15th Annual Railroad Modeling University
Saturday
January 25, 2020
8:00am – 4:00pm
Northside Baptist Church
333 Jeremiah Blvd,
Charlotte, NC 28262

Editor's Notes

By Ed Gumphrey

UPCOMING AREA TRAIN EVENTS

Central Railway Model and Historical Association Rail 2020 Model Train Expo
Friday Feb 7, 2020
1:00 – 7:00pm
Saturday Feb 8, 2020
10:00am – 4:00pm
207 Rock Springs Rd.
Easley, SC 29642

Travels interfered with timely publication, but here's the November edition.

As I predicted last month, the October meeting was a novel experience at Southern Piedmont Live Steamers. The event was well attended and everybody had a good time.

Unfortunately, I didn't get any submissions dedicated to the experience of the MER 2019 Convention at King of Prussia, Pennsylvania. However, Michele Chance has an excellent article published in the latest edition of the MER newsletter. By all accounts, The Philadelphia Division conducted a highly successful event. We'll have a tough act to follow when we host the convention in 2020. More on that later.

In addition to the regular news section and articles I'd like to take a moment of your time to promote a few other sources of news in The Division.

- Fellow member Seth Gartner has formed a group on Facebook where he is posting updates on his Piney Fork Branch NYC layout. If you're on Facebook, check it out. Seth's railroad was a cover feature in *Model Railroader* magazine last year.
- Neal Anderson, MMR, regularly posts updates on the KK&L Railroad on his website. In particular, he's got a great collection of photos showing progress on his 7½" gauge projects.
- Jack Parker, MMR, has an open house on Saturday, December 7th. Get details on his website for the P&W. This railroad was a cover feature in *Model Railroader* magazine last year.

SUBMISSION GUIDELINES

I target the 1st of each month for publication. Please submit articles for publication by the 27th of each month.
The preferred format is MS Word, but I can convert most other formats.
For questions and help, email me at editor@carolinasouthern.org

DIVISION AND REGIONAL NEWS

By Ed Gumphrey

CSD's October meeting was held Saturday the 19th at Southern Piedmont Live Steamers in Oakboro. As Superintendent Alan Hardee said, our thanks to Neal Anderson, MMR, for arranging this venue for our meeting and visit. We held a brief meeting with updates on convention planning and soon adjourned to ride and operate the 7½" gauge models. These included Neal's scratchbuilt locomotive, flatcar and caboose. We were also treated with seeing a live steam ten wheeler (4-6-0), fired with coal.

Of particular interest to me was observing the innovative procedures that the live steamers have developed to handle transportation, setup and operation of these large models. As an example, the live steam ten wheeler weighs over 650 pounds!

As a follow-up to the meeting updates, Neal scheduled a special meeting for convention planning at his house on November 2nd. It was a highly productive meeting that established a good plan of action moving forward to prepare for hosting the 2020 MER Convention. I won't bore you with all the details. The dedicated convention web page will be launched on the first of December. You can read more details next month.

I'll close off the news section with The Division's thanks to the Southern Piedmont Live Steamers for hosting our meeting and providing us with such an enjoyable visit. Having said that, I'll let the photos and captions tell the rest of the story.

An aerial view (from Google Earth) shows The Southern Piedmont Live Steamers track. Two ovals with passing sidings, two wyes, and staging tracks on over 10 acres.

Upon arrival, you are first greeted by incredible trackwork. By comparison, 7½" gauge is slightly more than 11½ times HO scale's 16.5mm (0.65") track gauge.

An ingenious transfer table can be adjusted for height to transfer locomotives and rolling stock from the storage container (right rear of photo) or from a vehicle used to transport the model.

The transfer table in use as a locomotive and ride-on flatcar are moved onto the railroad's loading track. The loading track goes downhill to the right and merges in with staging tracks.

After carefully aligning the transfer table for height, the live steam ten wheeler, weighing some 650 pounds, is moved from a pickup truck bed to be mated with its tender.

Three med slowly push the loaded transfer table to the railroad's loading track.

A storage container holds members' locomotives and rolling stock for easy transfer.

The owner is firing up his live steam 4-6-0. The locomotive is fired by coal, and boiler operating pressure is over 100 psi. It took about 40 minutes to get the boiler up to operating pressure.

Real functional backhead details! The tender can carry enough coal and feedwater for about 3 hours of operation.

Meanwhile, CSD members attended a brief meeting. The primary discussion was about planning for hosting the 2020 Convention. More news to follow about convention planning.

The staging tracks are starting to fill up. The train on the left was scratchbuilt by CSD member Neal Anderson, MMR. The other train belongs to one of the SPLS members.

With steam up to pressure and the safety valve venting, the engineer carefully backs his ten wheeler down grade off the loading track into a staging track. We're ready to run!

Superintendent Alan Hardee jumped right to the task, taking one of the SPLS member's trains for a ride. He's holding a remote control that governs operation of the electrically powered locomotive.

Our webmaster, Gil Brauch, MMR, joined in as well.

CSD members meet on a passing siding.

Under live steam power! It's a shame that a photo can't capture the chuffs and whistle sounds.

Convention Chairman Neal Anderson, MMR, enjoys riding his scratchbuilt train with his dog Casper.

Oops! It takes a strong back to correct a derailment in 7½" gauge.

A large file guided by a practiced hand corrects the rail burr caused by the derailment.

Riding behind the live steamer was a popular choice.

Family members joined in the fun as well.

Again, our thanks to the Southern Piedmont Live Steamers for a fun-filled day.

Train Show Musings

By Doug Algire

As I write this the *Day Out with Thomas* ended at the North Carolina Transportation Museum. The Concord Area Model Railroad club (CAMRRC) was there with their modules. The hot weather did not keep anyone away. The crowds were good all six days. Kudos to Larry Lackey the CAMRRC) club module coordinator for the great job designing the layout. His other job herding us cats to actually bring our modules is the one that gives him gray hair.

We had a module winner on Ryan Kunkle's new module. Look for the red winner sticker on the right-hand side.

Thank you to everyone who brought modules and helped with setup and tear down. As usual I was the last one to finishing packing. Thank you, Neal Anderson, MMR, for staying and helping with last minute details.

This is always a good opportunity to visit the other clubs and admire their work. I always come away with more modeling ideas. Plus, this is a great time to chat with fellow model railroaders.

During this show I ended up with damage to a couple of modules. A Peco turnout on one straight module had a point ripped right out of the plastic retainer. In fact, the whole point ended up coming loose from the hinge. The plastic retainer is actually gouged. Someone took serious force to rip it out of the retainer. Yes, this did cause a derailment. I am trying to repair it. If not possible to repair then I have to replace and rewire to the buss and my Frog Juicer. Two other turnouts on my straight modules had their points thrown to cause a derailment.

I also had a Caboose Industries ground throw ripped from its mounting block. This is on a back track so no derailments. Still, I have to replace it with a new one.

Interestingly, on the other side of the layout by the yard entrance another turnout had the points thrown to cause a derailment. No trains had come in or out of the yard so this was intentional. From now on I will try to stay vigilant and watch my modules in particular and the whole layout in general. Everyone would be wise to do the same.

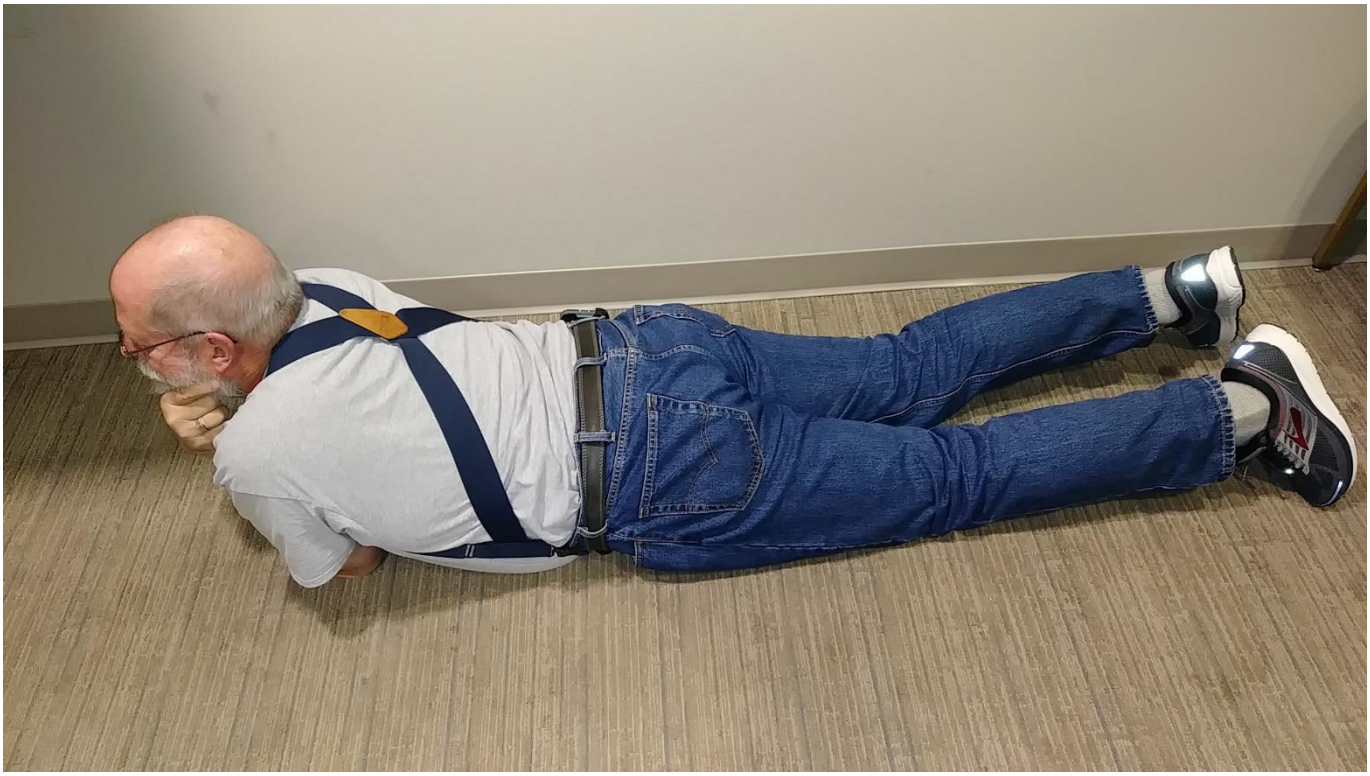
I am still plugging for Railroad Modelling University 2020 (RMU) on Saturday, January 25, 2020. We are going back to Northside Baptist Church. On the plus side is all of the rooms have audio-visual equipment. Downside is we end up with less room for clinics. Looks like only six rooms available for classes that equates to twenty-four 1.5-hour class openings.

How can you help? Think about being a clinic presenter. Over the years our club provided great representation leading clinics. That is testament to your skills and willingness to share your expertise. Here are a few of our members that taught at past RMU's: Yours truly, Neal Anderson MMR, Dave Chance, Michele Chance, Jack Parker MMR, Jack Monette MMR, Ryan Kunkle, Nancy Campbell. In addition, we have great Carolina Southern Division 12 presenters such as Gil Brauch MMR, Fred Miller MMR, Roy Becker, Alan Burdick, Ed Gumphrey, Joe Burden, Seth Gartner, Ty Brown, Bob Halsey and others. If I left off your name please forgive me.

Another way to help? Volunteer to help at the registration table, help with set-up and tear down which should be way easier than what we had to do at my church, or run the white elephant table. Nice benefit for RMU is you do NOT need to be an NMRA member.

Me, Neal Anderson, along with Dave and Michele Chance attended the NMRA Mid-Eastern Region (MER) 2019 Convention in King of Prussia, PA. The days flew by with all the things to do with clinics, layout tours, judging models, visiting the vendor room and the modular layouts.

Neal was so tired he had to stretch out on the floor and think things over:



Talking about judging models, I would like to give a shout out to Dave Chance for putting up with me as we team judged forty-three models in the Contest Room on the scratchbuilding component. Dave was kind enough to sign off on my judging apprenticeship for scratchbuilding.

I sure am dangerous in the White Elephant room. Good thing I limited the amount of cash I had on hand. I found some great items with an even better price tag. Eventually the structures will show up on my modules. Don't ask me for the definition of 'eventually'.

The White Elephant room also had the door prize and silent auction entries. There were three silent auction items and close to 50 door prizes. Sadly, I did not win but not from a lack of trying.

Our NMRA Division 12 Carolina Southern is hosting the NMRA Mid-Eastern Region (MER) convention October 15-18, 2020 in Charlotte. This event you have to be an NMRA member to attend. Our own Neal Anderson is the convention chairman. Yours truly is the committee chairman for the clinics.

If you are not an NMRA member please consider joining if only for 2020 year so you can attend the convention. One year without the NMRA magazine is $47. Visit NMRA.org to join.

How can you help? Very similar to RMU; consider being a clinic presenter. I currently have remaining 56 one-hour slots to fill. The slots are flexible in that I can stack slots to accommodate a make-and-take clinic, for example, that needs a three-hour slot. Your clinic may be a popular one that we present multiple times during different time slots. Possibilities for clinics are wide open.

We also need volunteers for other areas of the convention. Talk to Neal Anderson for specific details. It takes many volunteers to put on an event. Not that we are that big but it takes volunteers, many whom the public never see, to make it successful.

For both events if you are an NMRA member and working on your Achievement Program (AP) certificate, if you present a new clinic for the first time you can receive Author points; otherwise you receive Volunteer points. Likewise, if you volunteer for other duty you can receive Volunteer points.

Send me an email (dalgire@comporium.net) if you would like to present a clinic or volunteer in another capacity. For clinics please include this information:

- Clinic title
- Short (no more than five lines) description of the clinic
- How many time slots you need
- Audio-Visual needs if any
- If a make-and-take include what tools they should bring and if there is an additional cost for materials

Mark both of these events on your calendar. Remember, your phone is a great place to do that. Go ahead and do it now. I'll wait. Come on get your phone out right now. Do it while you read this and you will not forget.

Hope to see you at our next meeting.

Happy Railroading!

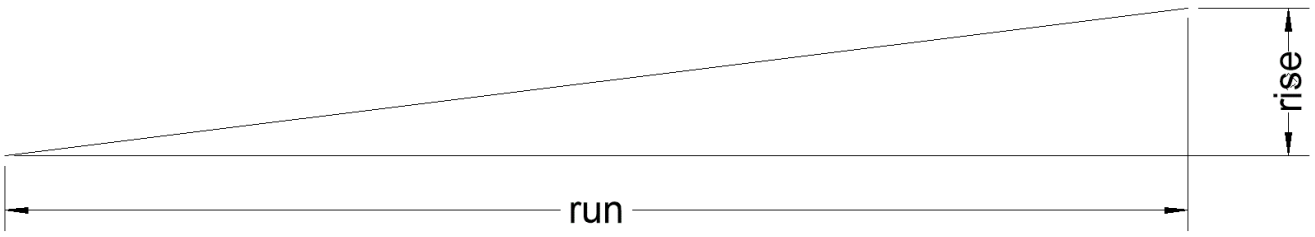
My Southern S-Line Making The Grade

By Tim Rumph

Some model railroads are completely flat, including many (but not all) modules. Many of us have grades on our layouts to lift one line above another, access different levels of a multilevel layout, for scenic effect, or to provide operational challenges. One topic I'm not covering here is what the maximum grade should be on your layout.

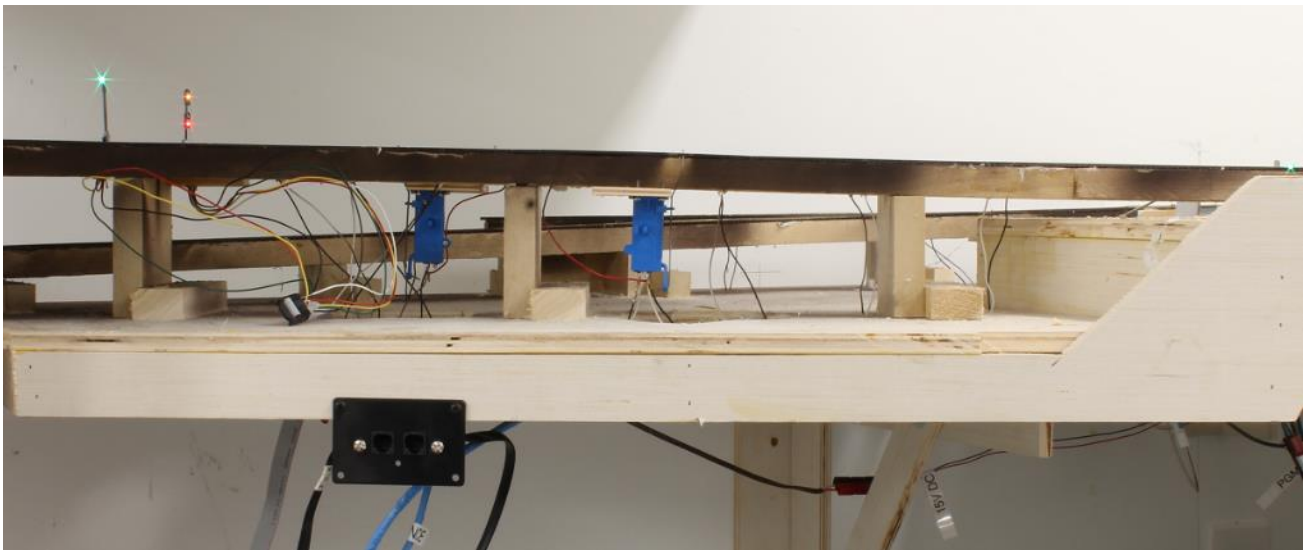
I am going to have one formula here, and a couple variations of it. The formula for calculating a grade (which I'll call g) is rise divided by run. As an equation, it is

$$g = \frac{rise}{run}$$



Rise divided by run equals grade $g = \frac{rise}{run}$

If your track climbs 4.25 inches and takes 15 feet (180 inches) to do it, the grade is 0.023611. There's no point keeping all those decimal places, and we usually multiply by 100 and show it as a percent, or 2.4% in this case. Sometimes you have a little more flexibility in your layout design and can decide on a grade and work from there. I like to make things come out even and easy to measure, so I decided to use a 2.5% grade on the part of the layout shown below.



S-Line grade going west out of Newton on my layout

If the height of my risers changes in 1/4" increments, we can rearrange the equation above and get this:

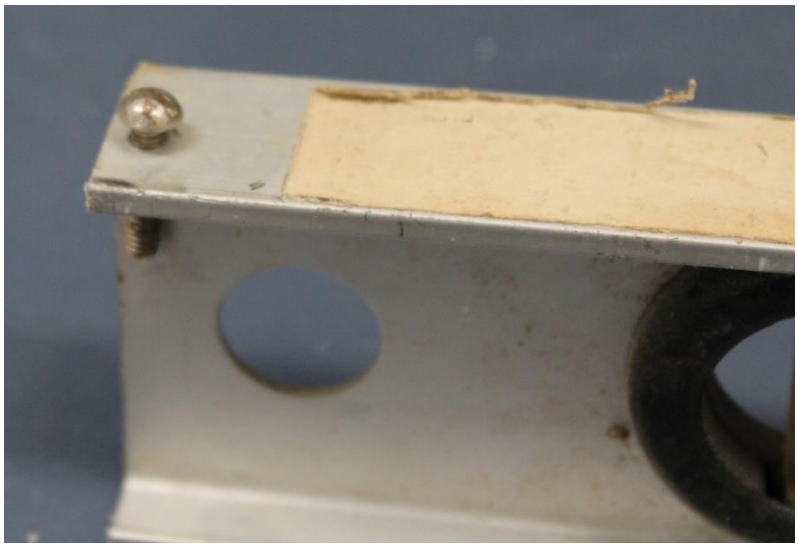
$$run = \frac{rise}{g}$$

Divide 0.25" by 0.025 (note: not 2.5!) and the distance between risers is 10". In that section shown above, I have a riser every 10" and each one is 1/4" higher than the last one. If you want to reduce the grade a little, say to 1.5%, and drop down to 1/8" difference in height, the distance between risers is 8-1/3". Don't despair though. Most framing squares include scales with inches divided into 1/12" increments, so 8-1/3" is 8-4/12".

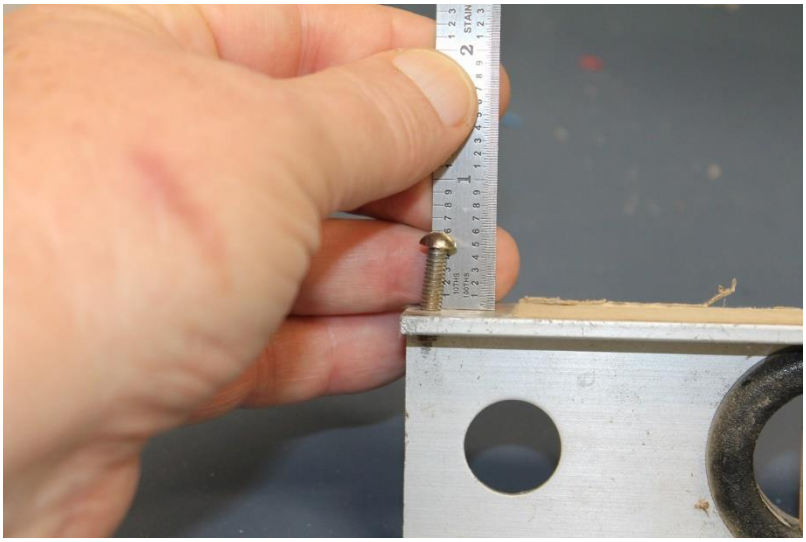
The way I'm building my layout, I can put risers wherever I want and keep the spacing even across the whole length of the grade. If you are using open grid or L-girder benchwork, and clamping the risers to the joists, they might not be so evenly spaced. If you want to measure them and calculate the elevation of each riser, it will be a lot of calculation, and probably won't come out to nice even numbers. There is an easier way.

Many years ago I added a screw to the end of an aluminum 24" level. I drilled and tapped a hole to fit this screw. I also put a label showing what extension of the screw corresponded to different grades. That was so long ago that the label has completely faded, but we can rearrange our equation again. The extension of the screw is the rise, and the run is 24". We have:

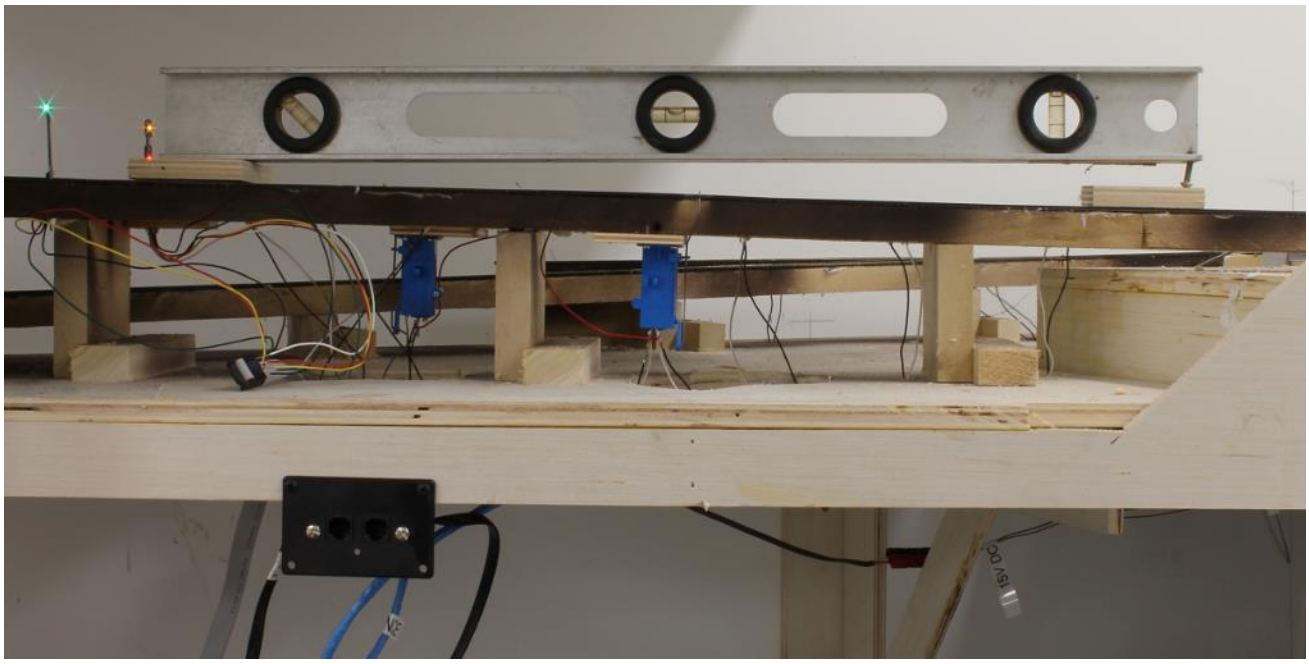
$$run\ x\ g = rise$$



24" times .025 is 0.6". You can do the same for whatever grade you need. Clamp the risers in about the right place, and then go along, sliding each riser up or down until the bubble in the level is centered. The level won't bend around curves, but as long as it's not too long compared to the curve radius, it will probably be close enough. The actual grade will be a little bit less than the setting, but the prototype often slightly reduced the grades on curves to accommodate the extra drag caused by the curve. Set the grade level by adjusting the screw to the rise height as shown.



Setting grade level



Grade level on my 2.5% grade. Looks pretty good!

The only thing left is what to do when the grade ends. The roadbed needs to curve gradually from the level section to the grade. If it doesn't it can cause uncoupling as the couplers slide up and down. It can also cause derailments, especially with larger steam engines. If your roadbed is fairly stiff, like 3/4" plywood, and you don't force it, it will probably be okay. Making this curved section at least twice the length of the longest car is a good starting point. It doesn't hurt to test it before you get too far.

As a general guideline, calculate the rise for the length you are using, and divide it in half. For instance, if you use a 25" long curve leading into a 2% grade, the first riser should be .25" higher or lower than the level section rather than .5". If that's too long a span and you have to divide it in two, or at 12.5", make that difference 1/4 or the one at 25", or 1/16". If you're using very thin roadbed or going from one grade to another, rather than having one section level, you need to be much more careful. Google Railroad Vertical Curves to find more information about this.

I've started sending information forms asking people to host layout tours and operating sessions during the MER convention here in Charlotte in October 2020. I'm still sending these out, so if I know that you have a layout, I'll be in touch. If I don't know about your layout, please contact me and I'll get the information to you. Also, if you know other people who have layouts, please ask them to contact me.

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JOE SKORCH's Southern Pacific Part Two Developing Operations

By Ed Gumphrey

Back in the May 2019 edition, I published a joint article with Joe Skorch about the development and construction of his Southern Pacific coastline railroad. I ended the article stating that I'd have more on the branch line Santa Maria Valley Railroad in part two. Well, that focus has been bumped to a future part three. Instead, I'm going to dedicate the second part to operations on the railroad.

At the time of the first article, Joe was just starting to develop his approach to operations. He was experimenting with some software called Ship It! from Albion software. When combined with their database program Railbase, the system provides waybills for car routing. Joe had also done some operation with the popular car cards from Micro-Mark, but found it a bit cumbersome. So, he kept looking. Joe's latest experimentation is with the operations features in JMRI (Java Model Railroad Interface).

Joe started scheduling regular operating sessions on the railroad about the time the first article appeared. Other experienced operators, including Andrew Stitt, Blayne Olsen, Jack Haynes, Larry Keller, Don Zufall, and John Short are helping as each session provides more insight into how best to run the railroad. Of particular note, John Short, a fellow NMRA member from our neighboring SER, is well-versed in this program. In fact, John presented an excellent clinic at a narrow gauge convention. In addition to reading his clinic guidance at the previous link, you'll enjoy his blog about narrow gauge modeling.

Joe reports learning more about using the JMRI software with each session. The software produces a manifest for each train that lists all of a train's work and schedule. A sample manifest from the JMRI website is shown on the next page. I found these manifests easy to use. I attended one session as an observer and a second session where I joined in with the more experienced operators. As a novice operator, I am enjoing the learning process.

Joe prints out the manifests and stages the scheduled trains before each session. That effort is an important contributor to smooth operations. Similarly important factors:

- Good trackwork and clean track
- Well-tuned rolling stock
- Familiarity tours before a session for new operators
- Feedback discussion after a session help improve each session

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JMRI Operations Demo Railroad

Manifest for train (LS) Lakeview - Susanville
Valid 12/14/2014 10:36
Staging to staging

Scheduled work at Lakeview, departure time 07:20
 [ ] Pick up SSW 4545 GP35 from #99 Yard Track
 [ ] Pick up SSW 4546 GP35 from #99 Yard Track
 [ ] Pull RUT 505 HopCmnt 36' Gray E<mpty> from #99 Yard Track
 [ ] Pull SLSF 61672 Gondola 52' Tuscan E<mpty> from #99 Yard Track
 [ ] Pull SOO 177514 Boxcar 50' White L<oad> from #99 Yard Track
 [ ] Pull MRL 9089 HopGrain 36' Gray L<wheat> from #99 Yard Track
 [ ] Pull GARE 812 Reefer Milk 38' Green E<mpty> from #99 Yard Track
 [ ] Pull RPX 2355 Tank Gas 38' Black L<oad> from #99 Yard Track
 [ ] Pull CTTX 8702 Tank Oil 36' Silver L<oad> from #99 Yard Track
 [ ] Pull PRR 81262 Boxcar 40' Tuscan L<oad> from #99 Yard Track
 [ ] Pull C&IM 16650 Boxcar 40' Green L<oad> from #99 Yard Track
 [ ] Pull SP 65000 Boxcar 50' Tuscan E<mpty> from #99 Yard Track
 [ ] Pull SP 97700 Boxcar 40' Black L<oad> from #99 Yard Track
 [ ] Pull WP 4006 Boxcar 50' Brown E<mpty> from #99 Yard Track
 [ ] Pull MNS 500 Boxcar 50' Brown L<oad> from #99 Yard Track
 [ ] Pull CDLX 1525 Tank Gas 38' Black E<mpty> from #99 Yard Track
 [ ] Pull SSW 46 Caboose 36' Black from #99 Yard Track
Train departs Lakeview Westbound with 15 cars, 810 feet, 1,100 tons

No work at Farmington
No work at Hillsboro

Scheduled work at Danville, arrival time 07:32
 [ ] Pull URNX 15221 Tank Oil 33' Black E<mpty> from #147 Drywell Ink
 [ ] Pull B&O 605099 HopGrain 36' Yellow E<mpty> from yard
 [ ] Spot RUT 505 HopCmnt 36' Gray E<mpty> to yard
Train departs Danville Westbound with 16 cars, 847 feet, 1,122 tons

Scheduled work at Port Arthur, arrival time 07:45
 [ ] Pull CNJ 23506 Boxcar 40' Tuscan E<mpty> from #159 Baron Gould Co
 [ ] Pull SLSF 17439 Boxcar 40' Tuscan E<mpty> from #45 Port Freight
 [ ] Pull SP 62925 Tank Oil 38' Black E<mpty> from #162 Siding Intermountain 10k
 [ ] Spot SLSF 61672 Gondola 52' Tuscan E<mpty> to #152 Zane Mercantile
 [ ] Spot URNX 15221 Tank Oil 33' Black E<mpty> to #157 MacKellear Coal&Oil
Train departs Port Arthur Westbound with 17 cars, 884 feet, 1,144 tons

Scheduled work at Bakersfield, arrival time 08:04
 [ ] Pull CNW 1555 Boxcar 40' Tuscan L<oad> from #68 Bkrsfld Grain
 [ ] Spot SOO 177514 Boxcar 50' White L<oad> to #67 Seeley's Milling Co
 [ ] Spot CNJ 23506 Boxcar 40' Tuscan E<mpty> to #67 Seeley's Milling Co
 [ ] Spot SLSF 17439 Boxcar 40' Tuscan E<mpty> to #67 Seeley's Milling Co
 [ ] Spot MRL 9089 HopGrain 36' Gray L<wheat> to #68 Bkrsfld Grain
 [ ] Spot GARE 812 Reefer Milk 38' Green E<mpty> to yard
Train departs Bakersfield Westbound with 13 cars, 704 feet, 988 tons

Scheduled work at Fremont, arrival time 08:26
 [ ] Spot CNW 1555 Boxcar 40' Tuscan L<oad> to #237 Deloge
 [ ] Spot SP 62925 Tank Oil 38' Black E<mpty> to #237 Wood Manufacturing
     Intermountain 10k
 [ ] Spot RPX 2355 Tank Gas 38' Black L<oad> to yard
Train departs Fremont Westbound with 10 cars, 576 feet, 816 tons

Scheduled work at Susanville, arrival time 08:39
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A sample manifest from the JMRI website

Most of us started out with a train set as a young child. With our interest sparked, we progressed from an oval of track on the floor to getting things mounted on some sort of platform. Many were a convenient 4' x 8' plywood table. Then we added more track. Perhaps one oval grew to two or three. When we discovered the flexibility that turnouts added, we could put some passing sidings and spurs on our minature worlds. Adding some structures and maybe some scenery added to the realism. But for most of us, that wasn't enough. We quickly grew tired of watching a train (or several trains) chasing itself around an oval. Rudimentary operations bloom in the form of station stops, meets, and passing operations. When we progressed to using good couplers like Kadee, we could drop a car off on a spur. Operations!

I want to make one more important point. Participating in Division activities is how I first met Joe Skorch. Aided by my curiosity as a newsletter editor, I made a trip to Joe's for an introductory article. I met still more members. As friendships developed, I enjoyed everything from general railraod discussions, watching railroad videos, making tree armatures, and even ogling Joe's vintage British sports cars. There are several others in The Division that conduct regular operating sessions. For example, the CSD calendar lists operating sessions on the Patomac and Western at the home of Jack Parker, MMR. Join in. Make new friends and enjoy some operations.

As I said, I'm enjoying learning more with each operating session. I'll let photos and captions tell the rest of the story. In the meantime, I'm eagerly awaiting the next operating session on Joe Skorch's Southern Pacific coastline railroad.

Neat, well-marked track diagrams and controls make it easy for new operators to quickly learn how to properly operate on a model railroad.


Joe Skorch pre-stages trains on the lower level staging tracks.


Joe Skorch provides a familiarization tour of the layout for John Short. This enabled John to quickly adapt to operating on the railroad.

A brief pre-session meeting as Joe Skorch hands out manifests and assigns operators to their trains.

Andrew Stitt and Blayne Olsen discuss switching moves as an operating session is ready to start.

Joe Skorch acquires a consist on a remote throttle, ready to hand the train off from staging to its engineer. Even the staging tracks feature a track diagram and easy-to-use turnout controls.

Andrew Stitt uncouples a car near the sugar beet processing plant. As it was on t prototype, the transfer of sugar beets is a key operational feature on Joe Skorch's Southern Pacific coastline.

Blayne Olsen uncouples a car near the automotive plant on the lower level. Good lighting helps, as does the generous spacing between levels.

Smooth-flowing trackwork is essential for reliable operation. Joe Skorch's railroad operates beautifully, a testament to his tracklaying skill.

The hidden helix between levels features bullet-proof construction and trackwork. It is monitored by operators on a security camera display on asmall LCD screen .

Blayne Olsen uncouples a car near the automotive plant on the lower level. Good lighting helps, as does the generous spacing between levels.

This montage of photos shows how clear labeling of areas and industries make operations easier for new engineers.

Generous aisle space makes operating a pleasure all around the railroad. Multiple operators can move effortlessly along with their trains.

So far, operating sessions have been all freight, and Joe hasn't yet imposed the fast time clock. Still experimenting with JMRI, as Joe refines his operating scheme scheduled passenger trains will be added to the mix. STAY TUNED!

CLOSING PAGE BONUS

HAPPY THANKSGIVING

Division Brass

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Paymaster	John Stevens	Paymaster@carolinasouthern.org
Director 2022	Ed Smith	director1@carolinasouthern.org
Director 2020	Roy Becker	director2@carolinasouthern.org
Director 2021	Larry Paffrath	director3@carolinasouthern.org
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