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

Volume 19 Number 5

**May 2019** 

## **Division Coming Events**

(See CSD Website for further details)

Wade's Train Town
Open House
Saturday May 11<sup>th</sup>
10:00am – 2:00pm
Brookford
Community Bldg
1700 S Center St.
Hickory, NC

CSD Monthly
meeting event for
May will be giving
clinics at Spencer
Shops
during the Spencer
Shops Train Show
Saturday, May 18<sup>th</sup>
9:00am – 5:00pm
NC Transportation
Museum
1 Samuel Spencer
Dr.
Spencer, NC 28159

#### **Superintendent's Corner**

By Alan Hardee

First thing, I want to thank Carolina Piedmont Division 13 for their invitation to join in on their visit to <u>Tichy Train Group</u> on April 13<sup>th</sup>. Although I could not make the trip due to a prior commitment, I have heard rave reviews about his tour. I look forward for more joint Division activities in the future.

Our May division meeting will be at the North Carolina Transportation Museum in Spencer, NC. This will be in conjunction with their annual Train Show on May18. We will again be conducting "How To" Clinics throughout the day for visitors to watch and learn from some of the best modelers in the area. Last report from Gil, he still has two clinic slots available, one at 11:00am and one at 1:00 P.M. The division will also have the timesaver layouts available for the young and old to try their operating expertise. Please consider stopping by to help man those so everyone can enjoy the show.

Don't forget our Summer "How To" Clinics in June, July and August on painting, decaling, and weathering boxcar shells.

In closing, I have been asked to pass along a request for help from the North Carolina Museum Of Dolls, Toys, & Miniatures in Spencer (formerly Spencer Doll & Toy Museum) for help managing a newly acquired model train layout. They are located a half block from Little Choo Choo Shop on 4<sup>th</sup> street. I will see you at the Train Show.



### UPCOMING AREA TRAIN EVENTS

Neuse River Valley Model
Railroad Club
Spring Into Trains Show
Sat-Sun May 4<sup>th</sup>-5<sup>th</sup>
9:00am – 4:00pm
Scott Building
NC State Fairgrounds
1025 Blue Ridge Rd,
Raleigh NC 27607

Spencer Shops
Train Show
Saturday May 18<sup>th</sup>
9:00am – 5:00pm
And
Sunday May 19<sup>th</sup>
Noon – 5:00pm
NC Transportation
Museum
1 Samuel Spencer Dr.
Spencer, NC 28159

2nd Annual
Charlotte Area RailStrava-Ganza
June 8<sup>th</sup> and 9th
Gastonia Convention
Center
145 ML King Jr Way
Gastonia, NC

#### **Editor's Notes**

By Ed Gumphrey

I'll open this month by calling your attention to CSD's May meeting in conjunction with the Train Show at Spencer, where division members will be giving clinics. Gil Brauch, MMR, is coordinating volunteers and reports there are still two slots open, one at 11:00am and one at 1 pm on Saturday. Gil is looking for a 'neat' demo to fill that slot. Trees, fences, tracklaying, building benchwork, and electronic projects are already spoken for, but please <a href="mailto:e

I hope you enjoy this edition. I had a lot of fun visiting Tichy Train Group and putting together a summary of the trip for those that couldn't make it. There's good news on AP progress in the Division. Tim Rumph's next installment on reverse loops talks about using auto-reversers. As a preview, his next article will show an alternative to using those devices.

I finally got some of the cobwebs cleared from my year-long efforts to show off Joe Skorch's Southern Pacific layout. I'll follow up this first part with a second article showing more of his railroad and discussing his approach to operations. Both of my visits to Joe's house were highlighted by the presence of other CSD members. It's great to see our members working together outside of scheduled Division events. It's also noteworthy that the friendships that Joe has formed all started by attending a CSD meeting. Liberty Bell 2019 is shaping up.

As always, I welcome your feedback and comments. Let me hear about your railroad or latest project. I'd love to work with you to get it in a future edition for all the division members. Don't miss this month's last page bonus.

#### **SUBMISSION GUIDELINES**

I target the 1<sup>st</sup> of each month for publication.

Please submit articles for publication by the 27<sup>th</sup> 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

As Alan Hardee noted in Superintendent's Corner, CSD's April meeting was a field trip for some members to visit Tichy Train Group in Bulington, NC for a tour. That doesn't mean there's no follow-up news from the March meeting and discussions. There's good news....

Neal Anderson, our 2020 Convention Chairman, has been communicating with officials of the Mid East Region (MER) as well as our own Board of Directors. MER's Executive Convention Chair, Eric Dervinis, has been working with Neal and helping to negotiate the best deal for our venue in hosting the 2020 MER Convention. That's good news in the wake of concerns raised at our meeting in March. Bottom line, things are back on track for us to host a successful convention next year! With that, I'll move on to our field trip....

#### TICHY TRAIN GROUP TOUR (AKA April "meeting")

By Ed Gumphrey

I echo Alan Hardee's thanks to Carolina Piedmont Division for inviting us to join in this tour. During RMU, and through emails, over a dozen CSD members signed up for the trip. Unfortunately some health and scheduling issues prevented many from attending. I was joined by Mike Long and Earl Overbey for the drive up to Burlington. It was a rainy day, and just north of Concord on I-85, it was downright torrential. Driving conditions were bad enough that we almost turned around. Mike was riding "shotgun" and looked at weather radar on his smart phone, so the promise of more clear skies ahead kept us on track. I'm glad, because it was a great trip.

We arrived right on schedule. The first thing I did was take a picture of the outside of the building, just in time before the rain started up again. In the foyer area, we introduced ourselves members from Piedmont, and Jack Dziadul, one of MER's Directors, opened some discussion about division activities. The group was soon treated to Don Tichy's arrival - with his signature (and almost permanent grin). I first met him years ago at a train show in Timonium, MD. Back in those days I lived



Tichy Train Group

much closer to Maryland, and Don's area was always one of my favorite spots at Timonium shows. Don is always warm and friendly. You only need to spend a few minutes talking with him to know that he enjoys life and enjoys what he does for a living. In the beginning his line of kits and detail parts was more limited. He continues to expand it to this day.

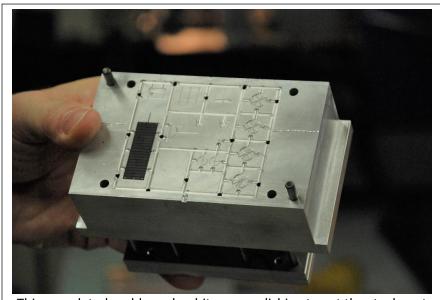


Visitors gab in the foyer awaiting the start of the factory tour.



Don Tichy starts the group on a tour of his impressive factory.

The tour started in a shop area where a computer-controlled milling machine cuts into aircraft-grade aluminum blocks to create the molds for the injection molding process. The "master" for the parts exist only on the computer. Depending on the complexity of the mold, the cutting process can take up to 10 or 12 hours. To demonstrate the process, Don called up a program for a new kit he is developing. Without an actual block to cut, we were able to watch the computer guide the milling machine's cutter in the intricate pattern needed. The picture below shows a completed mold. When passing around this example, Don explained that he needs to do some additional polishing on the section where one of the parts stuck to the die and was not properly ejected.



This completed mold needs a bit more polishing to get the stuck part (black rectangle) to properly eject.

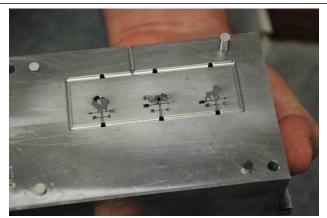
The shop area also includes a grinding machine where Don makes his own cutters for the milling machine from solid carbide blanks, along with other assorted tools and work areas.



Don Tichy explains the operation of his CNC milling machine as he sets it up for a demonstration.



This grinding machine is used to form the cutters for the milling machine from carbide blanks.



This die, for weather vanes, shows how intricate the details can be.



The shop also includes assorted tools, parts bins and work areas.

After visiting the shop area, Don led the group into the main area of the building. He explained that the building was originally designed for "clean room" manufacturing by the previous owners. As such, it is equipped with filtered air conditioning, tiled floors (as opposed to typical sealed concrete), bright lighting, etc. Encompassing roughly 35,000 square feet, the building is immediately impressive in the level of cleanliness and organization.

At the heart of styrene kits and detail parts alike, the injection molding machines were next on the tour. Styrene pellets area heated by the machines to 450° and then injected into the molds under two tons of pressure. The mold is then cooled with circulating cooling water, opened, and the part is ejected. Each cycle of the machine takes about 10 seconds. During the tour, Don had one machine happily cycling to crank out oil drums, which drop from the machine into plastic bins. They are later packaged either as part of a kit or as separate detail parts for sale.



An injection molding machine happily cycles away, producing oil drums which drop into the plastic bin at the bottom after they are ejected from the mold.

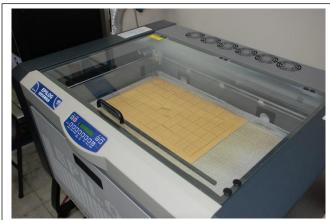


An overall view of the production machine side of the building. In the foreground is part of the largest of four injection molding machines. The large one is used for large molds (such as used for the coaling tower kit), where the molten styrene is injected at higher pressure – up to 12 tons or more.

Also viewed in the production machine side of the building, Don explained how a laser cutter is used to make parts, as well as a laser printer for making his popular signs. It was fascinating to also see a lineup of plastic bins that had been partially filled with thousands of scale oil drums from the machine that happily cycled along unattended. There are also grinding machines that recycle sprues and rejected parts into pellets for use in the injection molding machines.



Need some oil drums? Thousands were in this row of bins.



This laser cutter was being used to produce freight depot doors. The flexible machine can be used for a multitude of tasks, depending on programming.



This laser printer was set up for printing signs. The blanks are stacked in the blue box to the right.



Finished signs are ready for packaging. The laser printer allows for multi-color printing in one pass.

We next moved to the back of the building. Don has a traditional machine shop where parts for the machines can be produced. We also toured the machinery room where industrial air compressor and cooling systems are located. Chilled water is provided to all the injection molding machines to cool the molds (thus solidifying the styrene) before the parts are ejected. In the basement area below, cable and piping runs feed the needs of various areas of the building.



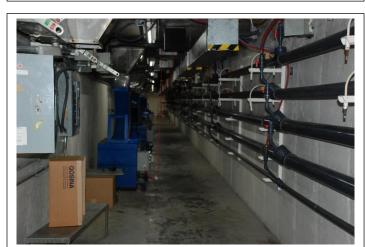
A traditional machine shop includes a horizontal milling machine and other stationary tools.



The machinery room provides cooling water and compressed air for all the machines in the production area.



A turbine-style compressor provides air services for the building.



Basement infrastructure distributes electrical, chilled water and air services throughout the building.

With the tour of machinery and production spaces, Don then led us past the rows of kits and parts in stock. Members were allowed to browse and select items for purchase, and Don graciously offered a discount. His daughter processed sales while his wife provided us with cookies, muffins and other goodies along with cold drinks.





It was a fascinating tour, and we all enjoyed a chance to see how Don Tichy's exceptional products are produced. If you aren't familiar with stuff from Tichy Train Group, you're really missing out.





Goodies topped off the end of the tour

#### **ACHIEVEMENT PROGRAM UPDATE**

Information and photos provided by Neal Anderson, AP Chairman

AP Dispatcher training sessions on the <u>KK&L Railroad</u> have been going well. Bob Halsey and Dave Thrams both have all their required time in. Andrew Sadler has 9.25 hours, Scott Perry has 8.5 hours, and Henry Reeves has 8.25 hours, all very close to the required 10 hours. We only have one more session for the first group to get all their hours, which will be held next month. The next group for AP Dispatcher will need to be getting ready. Sessions will be scheduled soon. So far, the second group includes Joe Skorch, Ed Smith, David Manko, and Doug Algire.

Several awards were presented during April. Doug Algire earned his Achievement Certificate for Association Volunteer. Scott Perry earned three Merit Awards for his structures. Pictures of Scott's structures were in last month's edition, and more detail about Scott's techniques can be seen on his blog at <a href="https://modelrailroadersnotebook.blogspot.com/">https://modelrailroadersnotebook.blogspot.com/</a>.



Doug Algire beams as Neal Anderson presents his Achievement Award for Association Volunteer



Scott Perry receives three Merit Awards for his structures from Neal Anderson.



## My Southern S-Line Reverse Loops 2: Automatic Reversers?

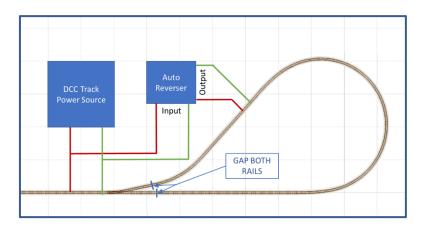
By Tim Rumph

The most common solution to finding a reversing loop on a model railroad layout is to reach for an automatic reversing circuit. There are several of these available, and here is a list of some of them.

Manufacturer	Part No.	Notes
<u>Digitrax</u>	AR1	Basic auto-reverser. Trip current 0.25A to 8 A. Sensitivity set by screw
		on the board.
	BXPA1	Auto-Reverser with detection, transponding, and power management.
		Configured with Digitrax throttle and connects to LocoNet. The
		transponding only works with Digitrax.
	PM42	Quad Power Manager. Four separate circuits that can be configured as
		circuit breakers or auto-reversing controllers. Configuration requires
		Digitrax throttle.
<u>Lenz</u>	LK200	Reverse Loop Module. Automatic adjustment, 5A max current.
DCC	PSX-AR	Reverse loop and overcurrent protection. Detects in-rush for sound
<u>Specialties</u>		decoders. Trip current 1.27A to 19.2A. Can also control turnout motors
		for automatic continuous running reverse loop operation.
Tam Valley	DCC Dual Frog	Can be configured for powering frogs or for a reverse loop. 2A or 4A
Depot	Juicer and Auto-	trip current, up to 10A capacity.
	Reverser	

NCE does not have their own auto-reverser, they recommend the DCC Specialties PSX-AR. Note that the auto-reverser does not have to be made by the same company that makes your DCC system, though you do need a Digitrax throttle to configure the BXPA1 or PM42.

So, identify your reverse loop, make sure that both rails are gapped at every entrance. Wire the input side of the auto-reverser to your main DCC wiring buss and connect the track in the reverse loop to the output terminals as shown to the right. Can it be this easy? Yes. Will this always work? Maybe, and in some cases, no.



All of these auto-reversers work by detecting a short circuit on the output of the controller. When it finds a short circuit (in other words, a large amount of current flowing through the circuit) it reverses the output connections. Hopefully, that corrects the issue, and everything proceeds okay. There are some ground rules you need to observe:

- 1- The reverse loop should be longer than your longest train (I mentioned this last month).
- 2- The auto-reverser switches before your circuit breaker or the protection on the booster trips. This has two parts. It must trip at a lower current, and it must trip faster.
- 3- Each reverse loop must have its own auto-reverser circuit. Don't try to run two separate loops with one circuit.
- 4- Only one train at a time can be entering or leaving the reverse loop. If two trains are entering at the same time and the polarity is different, there will still be a short after it trips. Hopefully it will shut down, but not all auto-reversers will act as circuit breakers. This will trip your breaker or shut down the booster.
- 5- If you have two reverse loops that connect to each other, you can't use auto-reversers on both of them. If you do, they can both detect the short circuit going from loop to the other. This can cause both to trip, the wrong one to trip, or the booster or circuit breaker to shut down. It might destroy one or both auto-reverser circuits.
- 6- If you have a short circuit on a train while it's inside the reverse loop, the auto-reverser will trip. This won't fix the problem, and it might cause other problems (see Numbers 4 and 5).

In cases 4, 5, and 6 above, if all else fails, the booster will shut down and probably protect your locomotives. However, a 5 amp booster has plenty of power to damage or destroy locomotives.

I prefer not to have short circuits on my layout in the first place. That along with the rules listed above lead to my decision not to use auto-reversers on my layout. I'll start laying out the options for controlling reverse loops without an auto-reverser next month.

Do you have a unique reverse loop on your layout? Would you like to share your solution with our guests next fall when we host the 2020 MER convention? Have you figured out how to arrange your track plan to avoid reverse loops? If so, contact me and share it with our visitors with a layout tour.

Tim Rumph 910-318-2676 tarumph@gmail.com 718 Canterbury Dr. Lancaster, SC 29720



Here's the next installment of railroads under construction ....



# JOE SKORCH's Southern Pacific Part One



By Ed Gumphrey and Joe Skorch

To an embarrassing extent, this first installment about Joe Skorch's model railroad is a not-so-subtle example of getting egg on my face. One year ago to the day, I received an email from Joe in reply to my solicitation for members to tell me about their own model railroads so I could work with them on getting an article in this newsletter. Joe said "I have a model railroad under construction in the Kannapolis area. I am building a two level layout in the basement of my home that is inspired by the Southern Pacific Coast Line in the transition era. However, I like all eras of the Coast Line and can run the layout right up to the merger with the Union Pacific in 1996. Andrew Stitt and Don Zufall have been helpful in the design of the layout with Andrew actually donating some time laying ballast for me. I had a layout that I had fully operational but was not operations friendly and after operating and learning on Andrew's layout I decided to tear it down and rebuild. I've attached a couple of pictures of some areas under construction."

Joe attached the following two pictures to spark my interest.



Early progress on a sugar beet processing plan on the upper level. Photo by Joe Skorch.



A view of an automobile plant on the lower level. The background shows some temporary industry placements as planning continues. Photo by Joe Skorch.

I responded right away to Joe's email with plans to include an introduction in the June 2018 edition of *The Brass Pounder*, and wanted to get up with Joe to make a layout visit. Fast forward four months to September of 2018 – I still hadn't had a chance to get to Joe, and had forgotten to include the above information in the newsletter. That's when I received another email from Joe, this time including some brief biography and a nice background description of his railroad, including the next two photos.....

"Some of you may know me but many don't. I have been a North Carolina resident for over 6 years now coming from Arizona with a small and very forgettable stop along the way in Baltimore. My wife and I rented a house until we were sure of where we wanted to reside but eventually wound up buying the house we were renting which has a basement for me to build my dream layout. Well let's just say I did build the layout and my wife and all her friends enjoyed it very much which was not a good thing as I quickly became bored with watching trains go around and around.



An overview of one part of Joe Skorch's railroad. The area on the left side lower level is now the location of the automobile assembly plant pictured above. Photo by Joe Skorch.

"I attended a meeting in which I met Blayne Olsen and he got me interested in the concept of operations. From there I met Andrew Stitt and low and behold I am attending an operating session and do not have a clue of what I am doing. I have spent most of my life building things, mostly racecars, so this was totally new to me, but I liked it. And so, the decision was made to tear down my layout which I had spent four years building. My wife and her friends thought I was crazy, but I was gung ho to build a railroad with a purpose.

"Having spent most of my life near the West coast I decided to model the Southern Pacific Coast route. I really liked the Daylight service but quickly found that there was much more than that and started to do some research, a lot of research.



An overall view of Joe Skorch's helix under construction along with some foreground lower level benchwork. Photo by Joe Skorch.

"It has been nearly two years since I started this project and I finally got to run a string of reefers all the way around the layout. I soon hope to be able to have operating sessions even though I am still learning how railroad operations work. This railroad will be big on produce utilizing PFC reefers and the Sugar Beet industry along with an automobile assembly plant. There will be small support services as well to provide for the bigger industries but still having passenger service come down the rails.

"It should be a lot of fun which is the whole idea of this in the first place."

Way too much time passed before I finally got to Joe's house to see his railroad in person. The first visit was in late December, not for a dedicated photo session, but to pick up some excess homasote that Joe had offered to me. The visit was jaw-dropping from a couple of perspectives. As I pulled onto the driveway, I saw Joe working in his large garage adjacent to his house. Andrew Stitt was there as well, and I was treated to seeing Joe's "other" hobby – cars. Joe has a pair of vintage British Sports cars, an MGB and a Triumph TR6. His shop is amazing. On the day I was there, he was preparing to install a car lift. After chatting a while in the garage, I was treated to seeing his railroad – jaw dropped for the second time.



This is about what Joe's garage looked like on my first visit. Photo by Joe Skorch on Facebook.



Shortly after my first visit, Joe had his car lift installed. Photo by Joe Skorch on Facebook.

I finally got over to Joe's for a photo session in late March of this year. On that day, both Andrew Stitt and Blayne Olsen were there, and I joined in with their session making trees. That session was fun and informative. It will be the subject of another series of articles in future issues.

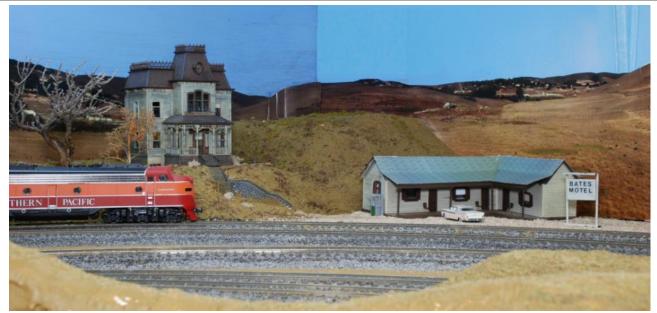
We all talked about methods for making trees, model railroad operations, and future plans for Joe's layout. I took a number of photos and will let them tell the rest of the story for this first installment. In a follow-up article, I'll sow more of Joe's progress and talk about how he operates his railroad. I'm especially looking forward to participating in his operating sessions.



Joe Skorch, Andrew Stitt, and Blayne Olsen chatting and making twisted wire tree armatures.



An overview shows great progress. Compare this to the photo on page 13.



A Southern Pacific E-unit enters the scene in front of the Bates Motel, one of my favorite scenes on Joe Skorch's two-level railroad capturing the Southern Pacific Coast Route.



The sugar beet plant has received more detail, including the scratchbuilt open carloads.



Reefers at the icing platform. Structures all around the railroad show Joe's keen eye for a good scene.



Another reefer load at a lineside industry, this one served by the Santa Maria Valle Railroad. More on that branch line operation in Part Two.



Sugar beet loading at one end of the railroad on the lower level. During operations, cars loaded here will work their way through the valley along the Southern Pacific Coast Route, up the helix to the upper level to the sugar beet plant pictured above. The entire railroad is operations oriented.

Here's the next installment of advance publicity for the 2019 MER Convention.

#### **Liberty Bell Special**

2019 MER Convention Sponsored by The Philadelphia Division – NMRA October 10-13, 2019 Come celebrate trains in the cradle of liberty!

Information provided by Chip Stevens of Philadelphia Division

#### Happy Spring!

The baseball season has started, in some parts of the region the grass is greening and yard work is fast approaching. And all over the region, Liberty Bell 2019 is also fast approaching. We've been busy on your behalf readying a memorable fall get-together. The clinic schedule is filled, 41 layout owners have agreed to sponsor open houses, and several operating sessions have been scheduled. There is still room for layout owners outside the Philly division who want to open their layouts for travelers to let us know their intentions to rest weary travelers. Those interested should email Bill Fagan at <a href="wfagan@comcast.net">wfagan@comcast.net</a>. There is also ops information available on the convention website at <a href="libertybellspecial.org">libertybellspecial.org</a>. Note, you can sign up for automatic updates on the convention status on the site.

In our last communication, we described the extensive, behind the scenes Saturday trip available on the former Reading branch now called the Colebrookdale Railroad. This all-day trip will demonstrate everything from locomotive startup through duties of the various crew members and will include opportunities for photo run-bys. Sign ups for this trip are on the convention website at libertybellspecial.org. Please note, there is a capacity limitation for this trip, so register early. Remember that the host hotel has extended their room rate discount to attendees due to the Columbus Day holiday on the Monday after the close of the convention. With this in mind, there are a couple of NON NMRA SPONSORED/NON NMRA ENDORSED attractions that will be available to attendees after our wrap-up Sunday morning. The historic Norfolk & Western (Norfolk Southern) steam engine #611 will be offering trips under steam Sunday and Monday on the Strasburg Railroad. We have reserved a block of discounted tickets for the Sunday afternoon trip which is available through the convention registration page. Tickets are \$10 for adults, \$6 for children. Please note, this reservation must be made by July 31, 2019 as the remaining tickets must be returned to the railroad on August 1st. Strasburg is approximately 65 miles west of the convention hotel. Also situated at Strasburg is the Railroad Museum of Pennsylvania, dedicated primarily to the Pennsylvania Railroad, but of major interest to all train enthusiasts. More information on either of these attractions can be found at www.strasburgrailroad.com and

<u>rrmuseumpa.org.</u> In a different direction, weekend operations are scheduled on the Reading and Northern Railroad and the Lehigh Valley Gorge Railroads.

As you can see, we have a lot planned at the convention and there are many opportunities to have a total railroad experience while you are in Pennsylvania. As we said before, all roads lead to King of Prussia!

I'll close out this issue by going back to the report about our trip to visit Tichy Train Group. On our way back from Burlington, we made a stop in Spencer to do a little shopping at Little Choo Choo Shop. As luck would have it, Spencer Shops had their 0-4-0 tank engine fired up and I we were treated to the sounds and sights of steam!



#### **Division Brass**

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Director 2020
Director 2021
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