



# Ties and Rails

Official newsletter of the Crossville Model Railroad Club  
and Div. 16, Southeast Region, NMRA

August 2019

(931)210-5050

[www.crossvilletrains.org](http://www.crossvilletrains.org)

**The Prez. Sez:** I believe it was three or four years ago that the Club voted to have a social event on the third Monday in March. The purpose was to come together for fellowship, meet new members you may not have worked with, include the spouses and present an opportunity for members to tell train “war stories”, ask questions, answer questions and ask for or give guidance. The Club provided pizza. The first years were well attended but this year, due to lack of participation, the event was cancelled.

The Club has also sponsored an annual picnic for many years; Ann and Jim have hosted the event at their home and all have been well attended. This year we have a change of picnic venue, as we are moving it to Camp Nakanawa on 70 North out of town. The Club will provide hot dogs, hamburgers, buns and condiments. Members are asked to bring a covered dish or dessert, your own drinks and a chair. As of last week, only fifteen members, out of over sixty active members, have signed up. If we do not get more member participation, the picnic may also be cancelled. That, to me, would be a tremendous loss for the Club. Ann is still accepting sign-ups on the picnic sheet in the back hall or you can simply call Ann to be placed on the list.

The County Fair sign-up sheet is also on the bulletin board in the back hallway. There are still open slots which require members’ involvement. As with the March social event, the picnic and now possibly the County Fair, may also be cancelled due to a lack of Club support.

Hard to believe that four times a year, or once every three months, we cannot get together as a Club to promote ourselves or spend time with our Club “family”.

Nominations chairman is Paul Falk and his committee will be soliciting candidates for the slots coming open this year. That would be the President, Treasurer and one Board member position which will be responsible for the back of the house, ie. Water and soft drinks in the office refrigerator.

Truly hope to see many of you at the picnic.

If you have something you wish to put in the newsletter, contact Tom Shallcross at [chipmonk4@comcast.net](mailto:chipmonk4@comcast.net)



## The DCC Shed @ CMRC

Paul Falk

Art Landrigan

Come in and get comfortable.

This month we preview a new document coming soon for the HO group. DCC Troubleshooting.

The Digitrax DCC system on the HO layout is based on a DCS200 command station. In a simple explanation, the command station is the source of DCC track power that is encoded with the information to command decoders in the locos. The command station is also the source of a network Digitrax calls Loconet. The Loconet is a six wire network that allows layout devices to communicate. One of those devices is a Digitrax handheld controller like a DT402d or a UT4. These devices can connect to the Loconet via the front panel connections located around the layout. These handhelds talk to the command station and the command station issues commands to the loco via the track power. Using these Digitrax handhelds, located under the HO tower, will always be the most reliable control method. Manuals for these handhelds are under the tower.

Using personal handhelds like smart phones and tablets using WiFi add another layer of complexity.

The simplest is the DTX network that uses a Digitrax device called an LNWI, that provides direct connection between the Loconet and the DTX WiFi it produces.

1. The more complex CMRC-HO WiFi uses a laptop computer, a separate WiFi router and a connection to

the Loconet using a usb cable to a device called a PR3. Because of this, using the CMRC-HO WiFi can be the most problematic. Issues with the windows operating system and JMRI programs and features are harder to trouble shoot and are beyond the scope of this document. If you can operate with either a Digitrax handheld or a personal device connected to the DTX WiFi, and the CMRC-HO WiFi will not work, please leave a note for the HO coordinator.

### PROBLEMS?? THINGS TO TRY

Using DT402d with fresh battery, try running loco. This is the most reliable method of operating DCC.

Assure the loop you are using is set to DCC.

Assure DCC track power is on. The tower display (top left side) should show 12 volts minimum.

Cycle the power on DCC power supply. Green switch on PS2012, shelf under tower-right side. Leave off for 10 seconds.

When using smart phone or tablet, assure device is on correct WiFi network.

Cycle power (REBOOT) your handheld device.

Will loco run on DC? Does loco have a decoder?

Has loco been programmed to cab number? If not, try using 03 as cab number.

Try using known good loco on same track.

Do you have any control? For example, can you turn lights on/off? Sound horn? If so, the problem rests with the loco. Maybe decoder programming or wiring.

**Next month- -N Scale!**

## The Railroad Gauge

Today, I learned something new- and it really is as old as time itself (more or less), what happened before had its needs, and funny that through the centuries, we never changed things which were good then. Maybe we should learn again how to conduct ourselves. The old were not so dumb as many of us are today with many things.

### Railroad Tracks

The Canadian and U.S. Standard railroad gauge (distance between the rails) is 4 feet, 8.5 inches.

That's an exceedingly odd number.

Why was that gauge used?

Because that's the way they built them in England, and English expatriates designed the U.S. Railroads.

Why did the English build them like that?

Because the first rail lines were built by the same people who built the pre-railroad tramways, and that's the gauge they used.

Why did 'they' use that gauge then?

Because the people that built the tramways used the same jigs and tools that they had used for building wagons, which used that wheel spacing.

Why did the wagons have that particular odd wheel spacing?

Well, if they tried to use any other spacing, the wagon wheels would break on some of the old, long distance roads in England because that's the spacing of the wheel ruts.

So, who built those old rutted roads?

Imperial Rome built the first long distance roads in Europe (including England) for their legions. Those roads have been used ever since.

And the ruts in the roads?

Roman war chariots formed the initial ruts, which everyone else had to match for fear of destroying their wagon wheels.

Since the chariots were made for Imperial Rome, they were all alike in the matter of wheel spacing.

Therefore, the United States and Canadian standard railroad gauge of 4 feet, 8.5 inches is derived from the original specifications for an Imperial Roman war chariot.

In other words, bureaucracies live forever.

So the next time you are handed a specification, procedure, or process, and wonder, 'What horse's a \_\_ came up with this?', you may be exactly right.

Imperial Roman army chariots were made just wide enough to accommodate the real ends of two war horses.

Now, the twist to the story.

When you see a Space Shuttle sitting on its launch pad, you will notice that there are two big booster rockets attached to the sides of the main fuel tank. These are solid rocket boosters, or SRBs. The SRBs are made by Thiokol at their factory in Utah.

The engineers who designed the SRBs would have preferred to make them a bit larger, but the SRBs had to be shipped by train from the factory to the launch site.

*Cont. on page 4*

## The Railroad Gauge

*Cont. from page 3*

The railroad line from the factory happens to run through a tunnel in the mountains and the SRBs had to fit through the tunnel. The tunnel is slightly wider than the railroad track, and the railroad track, as you now know, is about as wide as two horses' behinds.

So, a major Space Shuttle design feature of what is arguably the world's most advanced transportation system was determined over two thousand years ago by the width of a horse's a \_\_\_. And you thought being a horse's a \_\_\_ wasn't important! Now you know, Horse's A \_\_\_ es control almost everything.

Explains a whole lot of stuff, doesn't it?

*Submitted by Larry Lewer*

Cumberland County has announced in The Crossville Chronicle very recently, a "Grant" for 1.34 million to "Re-establish" the **CUMBERLAND COUNTY RAIL AUTHORITY**.

The GRANT through the TENNESSEE DEPARTMENT OF TRANSPORTATION will be used for improvement projects to the **LHOIST RAILWAY** in eastern Cumberland County. Two projects include \$909,720 for Bridge rehabilitation and \$431,575 railroad tie replacement from "Mileposts 146 to 157".

*Submitted by Bill Bullard*

## New Member

At our general membership meeting, **Nathan Barger** was introduced as a new member to the Club.

When you see him, introduce yourself and welcome him aboard!

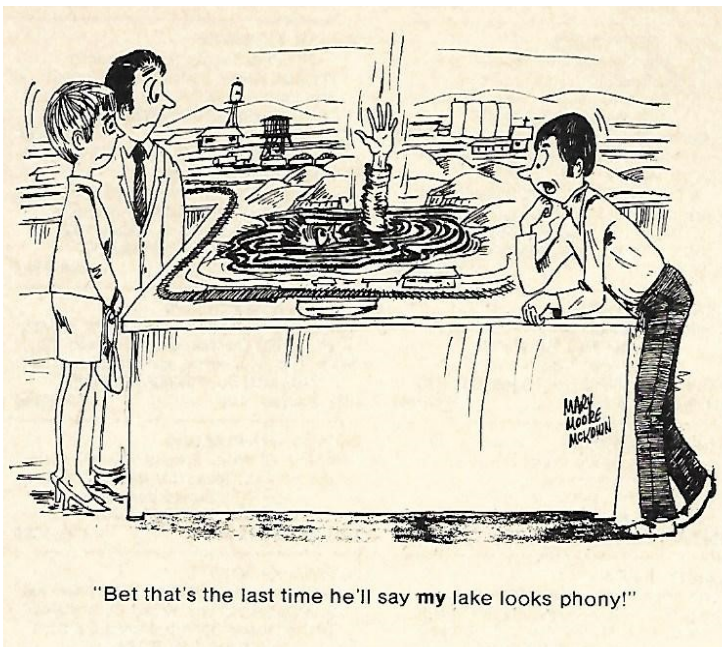




Congratulations to **Art Landrigan** as he receives his National Model Railroad Association's **Association Volunteer** certificate from Richard Morris, the local Plateau Division's AP Chairman.



Congratulation, Art. It is well deserved for all the hard work and dedication to the Club and the Division.



"Bet that's the last time he'll say my lake looks phony!"

## Membership

## John Conor

We will have at least one new member applicant for July. I think she will be at our August picnic.

Please make an effort to make all our newer members feel welcome and part of our train club family.

Once again, I'd like to thank each of you who continue to make a difference in promoting our Club to the visitors who stop by the suite to see our displays. Your efforts are what keeps us growing.

Good job! Thank you all.

## Marketing Committee

**Art Landrigan**

The Marketing Committee met on July 1, 2019 with 7 members in attendance.

A suite lighting revealed that a demo of the new concept is ready for review by the committee and members. This is merely a demo utilizing one set of lights purchased by Paul to determine if additional sets would do what we need. A follow-on review indicated that we would recommend the purchase of additional sets to the BOD at their next meeting.

**Social Media Review:** Bill Bly has been added as an administrator to the Website hosting and software accounts by Art, with an introductory session conducted with Bill, Paul and Art just prior to the Marketing meeting. Pat will add Bill as an administrator to the Club's Facebook account. Bill's experience in this area will allow him to monitor and utilize Facebook's capabilities to promote the Club's Website and attract attention to our various offerings in a more effective manner.

Further discussion of a sign for the hallway (a double sided loco) (approx. \$80.) will be purchased for installation on top of the existing red stanchion in the hall. Project Chair: Pat.

Bill Bly volunteered to become the Pi Signage monitor for the front window TV.

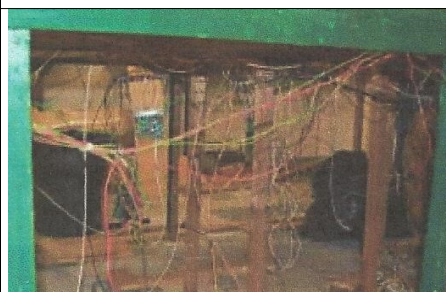
It was agreed that we should proceed with the development of a 2021 CMRC Club calendar for our 20<sup>th</sup> anniversary. The calendar would utilize Club railroad pictures for the months displayed, with a group picture of members (wearing Club shirts) on the front or back of the calendar. Project Chair: Pat.

Bill suggested that we consider assembling a 20 year History Book. The group agreed that it was a

good idea, and will discuss various methods and ideas at the next meeting. Project Chair: Bill.

The meeting adjourned at approximately 3:55 PM.

The next Marketing Committee meeting is scheduled for Thursday, Aug. 8, 2019 at 4 PM. If you haven't joined us in the past, why not come and pay us a visit. The only requirement is to bring an idea, or two, and share your thoughts with the Committee.



**HO  
Upgrade  
Project  
Tom Shallcross**

Work continues on the various aspects involving the fourth pier. The highway crossing midway through HoSu yard on the Southern line should be completed within the next month using a 'different' mode of detection as an experiment to see how well it works. If it works as expected, I may look at the possibility of upgrading the other crossings already in place on the layout.

To address a concern regarding the 'lack of floor light' when we turn off the room lights to 'operate at night', we have installed LED's around the perimeter of the different piers to put minimal light on the floor. This would provide some light to enable our visitors and staff to move around the HO section of the suite safely. The general comments from some staff members indicate that they feel that this is a big step forward.

Paul is working on the design for the other half of the fourth pier. It is expected to be presented to the HO membership at the next HO meeting.

## U.S. Railroad Highlights

U.S. Railroads were first developed for hauling granite and coal in the northeast on wood rails.

**1810** First permanent railroad, horse drawn, on wood rails, was Leiper Railroad between Crum Creek and Ridley Creek, PA

**1825** John Stevens built the first U.S. locomotive run on a test track on his estate in Hoboken, NJ

**1829** Baltimore and Ohio (B&O) was the first common carrier railroad to operate a locomotive, the "Tom Thumb".

**1830** BR&O was the first chartered railroad with passenger service from Baltimore, MD, 13 miles, to Ellicott's Mill, MD. It was an overnight round trip for passengers.

**1861-1865** Civil War railroads, North: Standard Gauge. South: 4 different gauges (Chattanooga and most of TN was 5 foot gauge).

**1865** Pullman "luxury sleeping" passenger cars introduced.

**1868** The knuckle coupler introduced to replace dangerous link and pin system. Knuckle coupler is still standard today.

**May 10, 1869** Transcontinental railroad completed at Promontory Summit, UT; ran 1776 miles from Omaha, NE to Sacramento, CA.

**1869** Westinghouse air-brake system first demonstrated; patented in 1871, same basic system used today.

**1880** First geared type logging locomotive, a Shay, changed how logging was done in the U.S. from mainly winter to all year.

**1886** Most Southern states started to convert from

broad gauges to 4' 8-1/2" standard gauge.

**1887** Congress creates the Interstate Commerce Commission (ICC) to regulate railroads and ensure fair prices.

**1888** The Sequatchie Valley Railroad reaches Dunlap, TN; abandoned and removed in mid 1990s.

**1893** Federal Railway Safety Appliances Act instituted mandatory requirements for automatic air brake systems and automatic couplers, and required **standardization** of the location and specifications for appliances such as handholds and grab irons necessary for employees' use. This applied only to interstate rail traffic.

**1893** The first mainline electrification, with a rigid overhead conductor wire, was used in Baltimore, MD.

**1900** Over 90% of the U.S. population lived within 25 miles of a railroad; there were no paved roads between cities and towns.

**1905** The McKean self-propelled Motor Cars were introduced to lower passenger traffic expenses. They were used on many smaller rail lines or branches.

**1913** First commercially successful internal combustion engine locomotive in the U.S, was built by General Electric, GM16 gasoline-electric V8 rated at 175 HP.

**1916** Peak railroad track mileage at over 254,000 and railroads held virtually 100% of all interstate traffic, both passenger and freight.

**1917** First Diesel-electric locomotive in the U.S. was a prototype built by G.E. V8 rated at 225 HP.

**1920's and 1930's** Automobiles and improved roads, contribute to a decline in railroad ridership and mileage, as well as the Great Depression.

## “So You Have Never Been Here Before”

If you have worked at the Mall for any length of time, you have likely heard, “I have never been here before”. Often times the person saying that is a lifelong resident of Crossville or Cumberland County. Yes, it is amazing that as long as we have been at the Mall, held special events like Santa and the Polar Express, Halloween, the Memorial Day Celebrations and many other events over the years, which were promoted in the newspapers, or even on radio, that there are still many local families who do not know we exist.

Bill Bly, our new Public Relations coordinator, is planning on ramping up our self promotion and he has already taken over our Facebook page. So with his experience in this field, we should hopefully see an upturn in visitor numbers.

Another event which gets us some close and personal time with county residents is the County Fair. We have never had a 360 degree display before so this year the fair layout will be bigger and better than previous years. This is an opportunity to create some needed exposure for the Club along with a chance to meet and greet fair attendees and talk about “Our Club”.

There remains some open slots on the fair schedule and the fair starts four weeks from Monday, on August 26. We will also need help transporting the displays as we use both the N and the HO at the fairgrounds. So if you can help out, please sign up on the bulleting board. If you have any questions, please feel free to call me at any time/

Pat 937-533-0897

## U.S. Railroad Highlights

*Cont. from page 7*

**1934** Burlington *Zephyr*, 3-car all-aluminum articulated train, was the first diesel-electric streamliner, capable of 110 mph.

**1940's** World War II brings railroads the highest ridership in American history, as soldiers are being sent to fight overseas.

**1950.s and 1960's** Drastic decline in railroad travel in the United States due to new Interstate highway system for automobiles and trucks. Air travel improves with the first jetliners. Many mergers occur with smaller lines being absorbed by the larger railroads.

**1971** Congress creates Amtrak and eliminates several passenger routes.

**1970's** Conrail, a freight railroad, founded from the remains of several bankrupt railroads in the Northeastern U.S.

**1980** Railroads deregulated and allowed to more freely set their own freight rates and abandon unprofitable rail lines.

**21<sup>st</sup> Century** As the U.S. infrastructure has been neglected over the past several decades and highways often reach over capacity, the railroads are handling more vital commodities and increasing passenger ridership.

*Courtesy of the Chattanooga Society*

*Of Model Engineers, Inc.*

## Reminder

There is an OPS session on Aug. 5 at 4:00 PM CDT and all members are welcome to join in.





## Important Dates in Railroad History *From NMRA and Southern Railway Historical Society calendars.*

8/1/1894—Southern Railway absorbs the East Tennessee, Virginia & Georgia; the Charlotte, Columbia & Augusta; and the Columbia & Greenville rail properties.

8/3/1916—Saluda Grade reopens after July 16 flooding.

8/8/1829—Stourbridge Lion first run, Honesdale, PA

8/21/1939—Southern Railway inaugurates the motor train *Vulcan*, trains 17-18-19-20, between Chattanooga-Birmingham-Meridian with two trainsets. This is the first regularly-scheduled use of diesel-electric motive power on the Southern system.

8/25/1877—Joshua Lionel Cohen born

8/28/1864—First permanent RPO route established

8/28/1830—First Baltimore & Ohio steam run, Tom Thumb





## Some of us still enjoy playing with trains!

*Photo submitted by Ann Grogitsky*

### **G Scale News - Ann Grogitsky**

We have replaced the lighting in the 4 buildings to the right of the black bridge, changing from Christmas lights to LED's.

We have also changed out the lights in the farm house and the three stores behind Bobby's Garage.

We have added LED's to both garages, both cabins, the gazebo, the barn and the depot next to Bobby's Garage.

G scale has a new member. Welcome to G scale Mary Ann Smith.

## **Club Picnic**

The annual Club picnic will be on Monday, August 12 and will be held at Camp Nakanawa. If you are using GPS, the address is 1084 Camp Nakanawa Road, Crossville. Please sign up on the bulletin board or call Ann, 788-2613. You need to bring a dish to pass (serving 8-10), your own lawn chairs and your own drinks. The Club provides hamburgers, hot dogs, plates, forks and napkins.

This is a beautiful setting on a lake, so you can swim, fish or use a paddle boat or canoe. There is plenty of shade and the restrooms are nearby. There is a diorama of the camp, built by Club members, in the library.

You can arrive after 3:00 PM; eating at 5:30 PM



I finally got a new printer so I think it is time to 'retire' my old machine!

*Editor*

# Ties and Rails Calendar

Tennessee Central Railway Museum, 220 Willow Street, Nashville, TN has numerous excursions throughout the year as listed in the calendar. Contact them at 615-241-0436 for specific information regarding any trip.

<b>Aug. 2019</b>	<b>Clean-up</b>	<b>Club</b>	<b>HO/N/Z Scales</b>
8/3/19	Train Show	Catoosa Colonnade, Old Mill Rd., Ringgold, GA	Adm. Unknown; 9:00 AM to 1:30 PM
8/8/19	Marketing Mtg.	Club	4:00 PM
8/10/19	Train Trip	220 Willow St., Nashville, TN	DelMonaco Winery Trip
8/12/19	Club Picnic	Camp Nakanawa, 1084 Camp Nakanawa Road, Crossville TN	3:00 PM; eat at 5:30 PM
8/17/19	Train Show	2526 Lebanon Pike, Nashville, TN	9:00 AM to 2:00 PM; Adm. \$5.
8/31/19	Train Trip	220 Willow St., Nashville, TN	DelMonaco Winery Trip
<b>Sept. 2019</b>			
	<b>Clean-up</b>	<b>Club</b>	<b>O/G Scales</b>
9/5/19	Marketing Mtg.	Club	4:00 PM
9/7/19	Train Trip	220 Willow St., Nashville, TN	DelMonaco Winery Trip
9/9/19	BOD Meeting	Club	4:30 PM
9/9/19	Member Mtg.	Suite 112, Crossville Outlet Center	6:00 PM
9/28/19	Train Trip	220 Willow St., Nashville, TN	Train Robbery Trip
<b>Oct. 2019</b>			
	<b>Clean-up</b>	<b>Club</b>	<b>HO/N/Z Scales</b>
10/2/19	Train Show	125 Music Mtn. Dr., Pigeon Forge, TN	10:00 AM to 4:00 PM; Adm. \$2.
10/4,5/19	Train Show	1301 Fanning Bridge Rd., Fletcher, NC	Adm. \$6; 12:00 Noon to 7:00 PM (Fri.) and
10/5/19	Train Trip	220 Willow St., Nashville, TN	Fall Beer/Wine/Art Festival Trip
10/10/19	Marketing Mtg.	Club	4:00 PM
10/12/19	Train Trip	220 Willow St., Nashville, TN	Fall Foliage Excursion Trip
10/14/19	BOD Meeting	Club	4:30 PM
10/14/19	Member Mtg.	Suite 112, Crossville Outlet Center	6:00 PM
10/19/19	Train Trip	220 Willow St., Nashville, TN	DelMonaco Winery Trip
10/26/19	Train Trip	220 Willow St., Nashville, TN	Baxter Harvest Festival Trip