Sunrise Herald

February 2025 Volume 18 Number 2

Sunrise Division Officers

Superintendent……William Boorman
Asst. Superintendent……Dennis Hagen
Secretary……Bob Hochstetter
Treasurer……Dave Clifford
Program Chair……Gary Myers
Division AP Chair……Gerry Meltzer
Youth Coordinator……Position open
Education Chair……Stewart Jones
Modular Layout Chair……Adam Crews
Herald Editor……Bob Hochstetter

In the Herald

Layout Photos of the Month

This month's three photographs are from Nick Tomlinson's HO scale home layout. They were taken as part of January's Sunrise Extra Event on January 10, 2025. Bob Hochstetter photos.

February Meeting Notes

The regular monthly meeting of the Sunrise Division of the National Model Railroad Association was held February 6, 2025, at Holy Love Lutheran Church. Superintendent William Boorman conducted the meeting. The meeting was called to order at 7:05 p.m. Twenty-two members attended in person, and none joined via Zoom.

William began the meeting by asking the members for a self-introduction and to tell what had been done in model railroading since the last meeting.

Tool Time, Show 'n' Tell, the Clinic, Announcements, and more followed the self-introductions. All of these are included in this issue of the Herald.

William adjourned the meeting at 9:00 p.m.

Next Meeting

The next meeting will be Thursday,
March 6, 2025, in person at Holy Love Lutheran Church, 4210 S. Chambers Road, Aurora, Colorado. The meeting will start at 7:00 p.m. The meeting will also be streamed on Zoom with sign-in between 6:30 and 7:00.

Video of the Month

Larry Stephens recommended this very informative video. After watching this video, I realized that I only understood a small number of the things that make up the "Big Boy".
(881) How a Steam Locomotive Works (Union Pacific "Big Boy") - YouTube

If you find a video that you think our members might enjoy, please send me the link. *(Ed.)*

Scheduled Tool Time

March—Rolling quality test track—Bob Hochstetter

Show 'n' Tell Themes for 2025

March—Yard/yard design
April—Depot
May—Reefer
June—Sleeper car
July—Engine facility/design
August—Layout schematic
September—Vehicle trucks, utility type
October—Tractor-trailer rigs
November—Scenery
December—Anything Goes

Scheduled Clinic

March—Freight Car Weathering—Gary Myers

Reminder

To reduce problems, especially for those who join the meeting on Zoom, we continue to ask that Show 'n' Tell photos, Clinic presentations, and Tool Time photos be taken before the meeting and sent to:
Gary Myers (garymyers06@comcast.net) for presentation at the meeting,
and to the editor (rlhoch422@gmail.com) for inclusion in the Sunrise Herald. *(Ed.)*

Module Report

Adam Crews reported that the module group was looking into signaling the modular layout.

Show 'n' Tell

Last month's Show 'n' Tell subject was **Flatcars**. These flatcar photos were accidentally overlooked by the editor for inclusion in the January edition of the Herald.

O scale, 3rail flat car with an armored self-propelled Howitzer load. Bill Johnson

HO flat cars with Sherman tanks. Load post WWII. Bill Johnson

Depressed center heavy duty flat car from Class One Models. Bill Johnson

February's Show 'n' Tell subject was **Caboose.** Five Division members showed these caboose photos.

An N scale wood and metal craftsman kit to build a PRR caboose. John Keiss

"In the 1950's my grandfather, Ed Keiss, purchased some trucks and couplers. He made an additional two truck side frames from scratch. In the 1990's he built this O scale Santa Fe caboose from an Ambroid kit to put them on". John Keiss

This photo is of the Burlington caboose on display in Expo Park in Aurora. John Keiss

"I found this impressive Grand Trunk caboose offered by a vendor at one of the Train Shows." Rich Flammini

"Nice surprise, since for a price, it lights up including the marker lights." Rich Flammini

Athearn HO scale ICC caboose with decoder-controlled lights and sound. William Boorman

Bill Johnson showed seven cabooses in these five photos and noted the different names that were given to them by various railroads.

HO scale CA-3 Union Pacific caboose.

On the CB&Q. and Santa Fe they were called way cars.

D&RGW composite side (steel and wood) caboose or sometimes called cabins.

Norfolk & Western and Pennsylvania called them cabin cars.

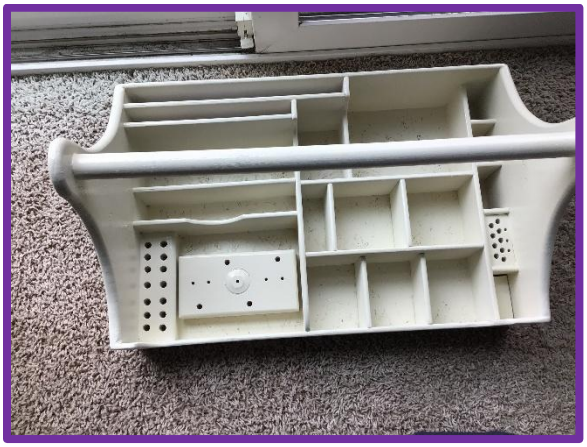
In the UK, they are called brake vans or guard's vans.

This model from Kadee Micro-Trains represents one of 35 cabooses built by American Car and Foundry in 1930 for the Missouri Pacific Railroad at a cost of $3055.75 per car. These cars were wood with steel underframes. Some lasted in service into the 1970s.
Bob Hochstetter

This model represents a caboose built by the Magor Car Corporation in 1937 at a cost of $4469.28. Thirty-five of these cabooses were built for the Missouri Pacific. This is an N-scale model from Atlas Model Railroad Company.
Bob Hochstetter

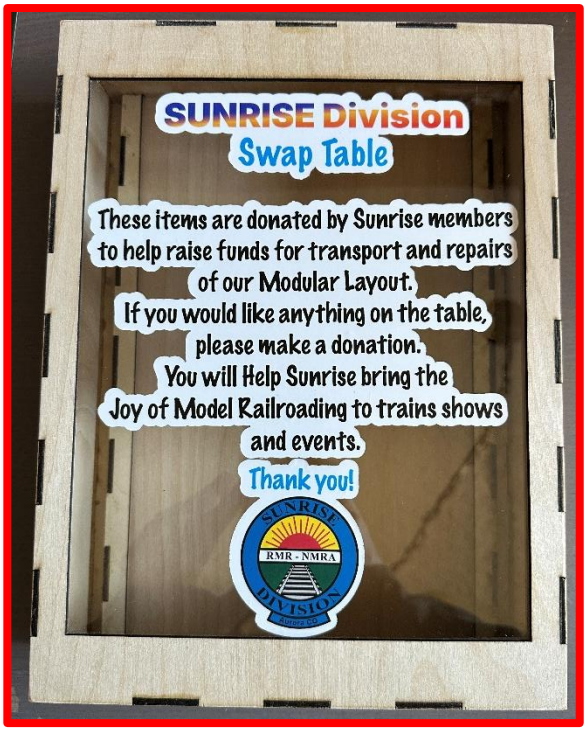
Tool Time

Bob Rothgery showed these pictures of his tool tote. He said, *"It started with this pile of Black Friday purchases. I needed a place to contain these and transport them to my workbench area. I started with scrap wood and used the items for a pattern. Everything had to fit on a shelf in my train room closet."*



Several months ago, Gary Myers started posting projects that he was working on, or had completed, to this column, **On-Track**. His motivation was to inspire members of the Division to post pictures of their own projects. The projects did not need to be huge layouts or massive accomplishments, merely things that were being done in the hobby.

This month, Adam Crews shows the donation box that he made for attaching to the swap table that the Division sets up at train shows where the modular layout is displayed. The items that are donated are items that were brought to the monthly meeting for its swap table but were not taken. Items that are not taken during the meeting may be left on the swap table if the donor does not want them back. Adam collects the items and displays them on the swap table at the train show. I think that Adam has a great idea and that he did a wonderful job making the donation box.



If you have photos of projects that you would like to share, please send them to me, Bob Hochstetter, the Herald editor.

Sunrise Extra

No Sunrise Extra Event occurred in February.

Clinic

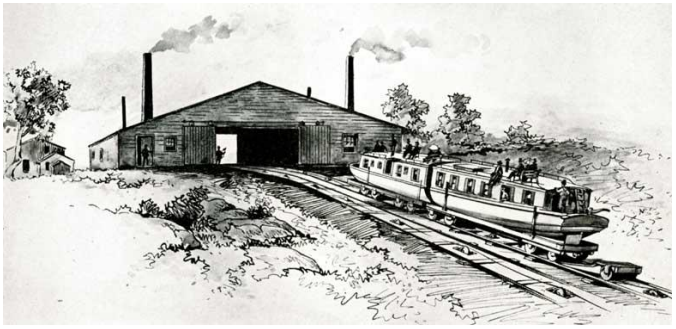
Stew Jones presented a very informative clinic at the Division meeting. It consisted of over 70 slides, so it was too large to reproduce here. Stew took the time to write this narrative for the Herald, for which I am grateful. (Ed.)

Following the successful Revolutionary War there was a critical need for improved transportation to support the growing economy. The traditional horse and wagon, a form little changed for 2000 years, could travel little more than 2-3 miles per hour, even without carrying much weight. Stagecoach travel was not substantially better. Coastal shipments by ships were also too slow with reliability problems due to shipwrecks. The immediate transportation improvement was the development of canals, primarily in the northeast. While canal boats could carry far heavier loads and facilitated east-west transportation, they still had to be powered by horses or mules that could not travel faster than wagons.

The Erie Canal was the first east-west canal opened across central New York state. It provided access from the port of New York to Lake Erie and from there across three Great Lakes to Chicago and other cities along Lake Michigan. An Illinois-Michigan Canal provided transportation from Lake Michigan to the Mississippi River. The Chesapeake & Ohio Canal was built from Baltimore westward but could not cross the Alleghenies and never reached the Ohio River. The Pennsylvania Canal that successfully crossed the Alleghenies, extended commerce to Pittsburgh and the Ohio River. This canal system is of interest because it incorporated the first American railroads.

Pennsylvania Canal boats were built into two halves that could be connected back-to-back and loaded onto primitive flat cars and drawn over rails by horse teams between ports. One rail segment connected Philadelphia to the Susquehanna River, eliminating a long trip down to the Chesapeake Bay and back upriver. A second rail segment crossed the spine of the Alleghenies from Altoona, PA (actually Hollidaysburg) to Johnstown, PA where boats could be relaunched into the Allegheny River system to complete the trip to Pittsburgh and the Ohio River.

The journey over the Alleghenies, shown below, shows two halves of a canal boat loaded onto a flat car and lifted on inclines by a stationary steam engine housed in a building at the top. The photo next to it shows a reconstruction of a segment of the railroad managed by the National Park Service. Note that the "rail" here looks like wood beams capped by iron straps to reduce wear and friction. There were five similar inclines on each side of the summit. Horse teams pulled the boats on level stretches between the inclines.



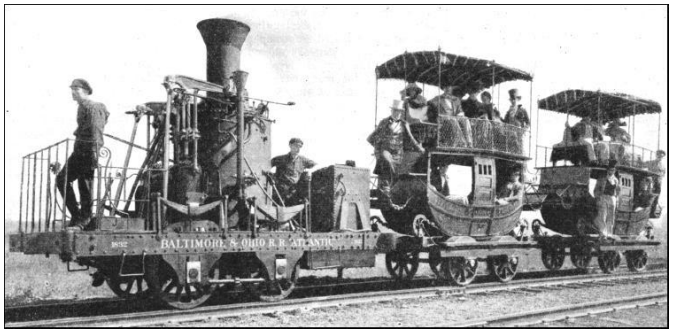
Another segment of the railroad has been preserved at the summit. The structure in the background is the Lemon House where canal patrons could receive meals and possibly sleep overnight. Note that iron rail has replaced the wood beams and is chaired, not on wood ties but on stone blocks sunk into the earth.

The photo next to the Lemon House shows the first U.S. rail tunnel at Staple Bend, drilled to a avoid a long river oxbow detour. The tunnel was for canal boats traveling on rails. This is now part of a hiking trail also maintained by the Park Service. At the west end, canal boats were refloated and re-assembled to continue their journey along the Allegheny River and its tributaries to Pittsburgh and the Ohio River.

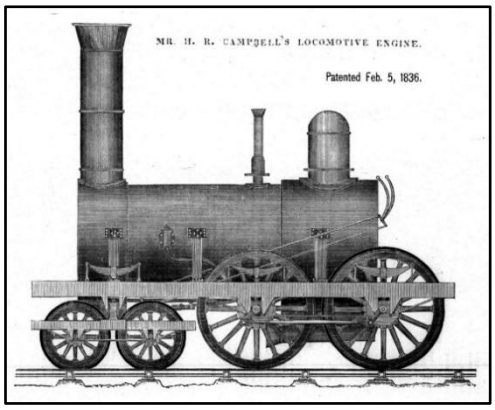
The Pennsylvania Canal opened in 1834 and operated for twenty years. Travel speed was still limited by the speed of horses and mules. The Pennsylvania Railroad, started a few years later alongside the canal, cut the travel time by a tenth and carried significantly more tonnage, putting the Pennsylvania canal out of business.

In 1807, Robert Fulton developed the first steamboat which was perhaps the first experiment to utilize steam power on a moving vehicle. His North River Boat, later renamed Clermont, could travel 150 miles from New York to Albany in 32 hours at an average speed of 4-5 miles per hour upriver and about 15 mph downstream.

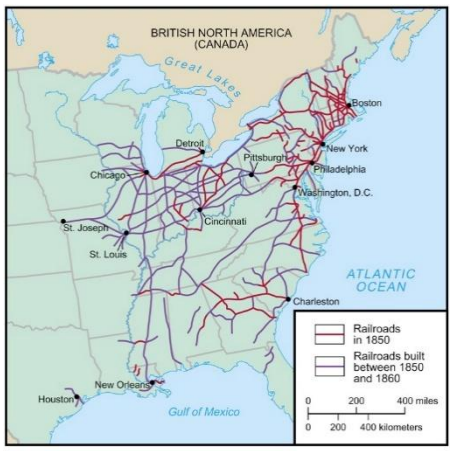
In 1829 experimental steam engines were being developed to travel on rails, first in Britain, and then in the US. They were quite primitive but proved the concept of steam engine power. In 1830 the Baltimore and Ohio Railroad developed the Tom Thumb, shown below. The first "passenger" cars were little more than stagecoaches adapted to run on rails with flanged wheels. The men standing on the car ends were brakemen who applied brakes on each car on demand, quite labor intensive. Automatic brakes had yet to be invented. Accidents were frequent and often fatal. The design was primitive, offering no protection for the engineer and fireman and no provision for providing water for the boiler, as is evident in the photo.



Locomotive innovations and refinements developed quickly. By 1836 M.R. Campbell developed a locomotive with four leading pilot wheels and four driving wheels. This design was widely adopted by American railroads and the 4-4-0 came to be known as the "American Locomotive". The swiveling pilot wheel significantly improved the tracking ability of the locomotive reducing derailments that plagued earlier designs. This design prevailed for the next 40 years. The photo of the Jupiter below shows the reconstructed Central Pacific locomotive that brought the Central Pacific to the Golden Spike ceremony in 1869.



Other improvements included equalizing levers or springs that kept the locomotive weight equally distributed over the driving and pilot wheels on uneven track, swiveling trucks on freight and passenger cars, headlights for nighttime operations and the invention of the iron "T" rail. Because of their speed and carrying capacity advantages, railroads quickly spread. The following map shows the extent of American railroads in 1850 (red) and 1860 (purple.)



RAILROADS, 1850 AND 1860

Clearly railroads were becoming dominant for transportation in the country, particularly in the northeast. However, none crossed the Mississippi River. Where rails are shown west of the river, all crossings had to be made by ferry boat.

Although he is better known for other things today, Abraham Lincoln's contributed to the development of western railroads which would have been much delayed without his efforts. Lincoln was early involved in river traffic but was convinced that the future of American commerce depended on east-west transportation, whereas the Mississippi River system offered primarily north-south transportation. By 1850 there was an extensive steamboat transportation system, but it was hampered by many obstacles and hazards including shoals, sandbars and rapids; because of these hazards, boats could not operate at night; and northern river segments were frozen for at least four months in winter.

The Chicago and Rock Island Railroad proposed and built the first railroad bridge over the Mississippi River between Rock Island, IL and Davenport, IA, that opened in 1856. The bridge had been in operation a mere two weeks before a steamboat, the *Effie Afton*, crashed into the draw piers and burned to the waterline, also burning part of the bridge. The bridge was rebuilt and reopened two months later, but a consortium of steamboat operators banded together with the St. Louis Chamber of Commerce and filed a lawsuit condemning the bridge as a navigational hazard. The Railroad retained Lincoln, among others, as defending lawyers. The photo, below, shows the original bridge, a seven-span Howe truss.

The center span was a swing bridge centered on the middle pier of three piers. River boats had to navigate the "draw" between two of the piers. A bridge tender was housed on the center pier and only "closed" the span when a train was ready to cross.

The trial was a watershed event in American transportation and would determine the future of western transportation. Testimony during the trial revealed that the *Effie Afton* collided with a cross-river ferry when departing Rock Island where she had harbored during the night. No assessment of any damage or repairs were made. The Effie continued upstream toward the bridge and apparently raced another boat to arrive first. As she entered the draw, it was reported that one paddlewheel stopped twice, possibly from a broken rod, and the boat collided with the pier. Small fires in passenger cabins erupted from overturned wood stoves but were quickly extinguished. The major fire started about an hour after the collision and there was speculation that it had been deliberately set.

Testimony from the bridge tender, who kept a log of all boat passages, established that since reopening, 951 boats had passed the bridge since the *Effie* disaster and only 7 had collided with any pier with no damage. In at least one instance the boat's pilot was reported to have been seriously inebriated. Also, during this period 12506 freight cars had crossed the bridge carrying 125860 tons of freight and 74179 passengers. Even though rails had not penetrated far into Iowa, it demonstrated the worth of the bridge. All transcripts of the trial were lost in the Chicago Fire, but the facts were reconstructed from many newspaper reports. The trial verdict was 9-3 in favor of the railroad, but the plaintiffs appealed to the Iowa Supreme court that reversed the decision. Eventually it was reviewed by the U.S. Supreme Court which upheld the original decision. Lincoln continued to be a primary advocate for a transcontinental railroad and was responsible for many decisions, including the rail gauge (the same as Britain's), the ultimate route and the terminal locations. Building this railroad faced many challenges:

- Political: Southerners wanted a southern route to expand slavery into newly admitted southern states. Northerners wanted a northern route to avoid the slavery issue.

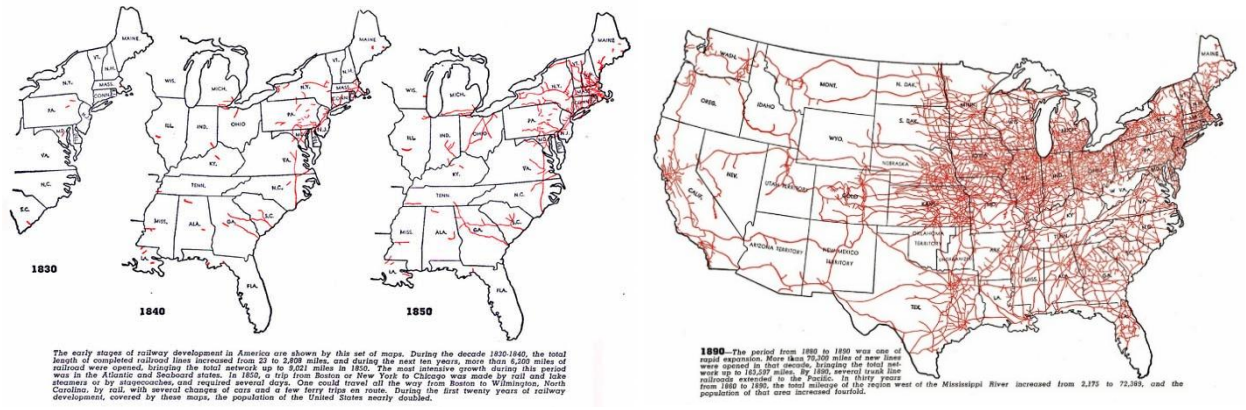
- Location: A southern route was the most expeditious, avoiding most mountainous terrain and winter weather hazards. A central and northern route encountered more mountains, difficult winter weather, and nomadic Indians.
- Materials: Iron, wood, and water nearby were in short supply, particularly in the east. The west had abundant wood and water but no other materials.
- Logistics: How would material be delivered to the construction sites? For the Union Pacific material had to be hauled overland through western Iowa where railroads had yet not been built. River transport was not an option during winter months. For the Central Pacific, all materials needed to be shipped around the Cape of Good Hope, a dangerous six-months journey, or across Panama, a shorter trip. Panama already had a railroad, but it was five-foot gauge so that locomotives and rolling stock had to be dismantled for the crossing.
- Technical: Steam locomotives and rolling stock were still primitive with only about 30 years of development. Iron rail had just been developed but was only made on the east coast in limited quantities. However, iron was a very brittle metal, particularly when cold, that had reliability problems. Steel making only developed slowly after 1860.
- Financial: How would the railroad be capitalized? The answer was government funding. (The eventual government funding fueled major financial scandals.) How could the railroads earn money since it would traverse mostly unpopulated territory. Also, who owned the land?
- Demographic: Only a small population existed in Southern California and no population in Arizona and New Mexico. The northern route also had a sparse population. The only cities on the central route were Omaha, Salt Lake City and San Francisco. The objections of native people also presented a problem.
- Organizational: At the time of the Golden Spike, the Union Pacific and the Central Pacific were the two largest corporations in America with no precedents for organization and management apart from the military. Entirely new models had to be developed.
- Labor: Where would the railroads find the people needed for construction? Building could not commence until the Civil War ended. By then there was a large pool of unemployed soldiers available, some of whom had railroad building experience. The problem was more severe in the west but was solved by importing men from China (against California restrictions.)

In the 30 years after the completion of the Union-Central Pacific railroads four more transcontinental railroads were completed, all with private funding:

- Southern Pacific 1881 linking New Orleans with Los Angeles
- Northern Pacific 1883 linking Chicago/Minneapolis with Seattle
- Great Northern 1893 linking Chicago/Minneapolis with Seattle
- Santa Fe 1895 linking Chicago with Los Angeles

These five transcontinental routes spurred the rapid growth of the west and the American economy.

American railroads continued to be the dominant mode (often the only mode) of mass transportation into the early twentieth century when the automobile and public highways began to compete. The vast network of rails was essential to the economic growth of the country. The last several maps show the extent of North American railroad growth between 1830 and 1890.



Today we mostly take railroads for granted, unless we model them, without appreciating the role that they played in the astounding development of our national economy. An interesting side note is that the first truly transcontinental route passed through Denver, not Omaha. The first bridge over the Missouri river was not completed until three years after the Golden Spike. Passengers and freight had to ferry between Council Bluffs and Omaha until then. The Kansas Pacific did bridge the Missouri at St. Joseph MO so rail traffic between Chicago and Denver was continuous then continued to Cheyenne without interruption. Previously a Cheyenne newspaper had proclaimed that "Denver was too dead to bury."

COLORADO
RAIL PROTO MEET

Saturday & Sunday, September 27-28th, 2025

Island Grove Event Center

421 N 15th Ave., Greeley, CO

Saturday 9:00am - 5:00pm

Sunday 9:00am - 4:00pm

Model Displays—Clinics—Hands on Stations

Vendor Room—Layouts

$35—Early Registration

www.colorado-rpm.org

Hosted by the

Colorado Model Railroad Museum

and the

Northern Colorado Division NMRA

Mother Lode Model Railroading
14 Inverness Drive East
Suite A-140
Englewood, CO 80112

New collections arriving weekly so come, see what's new & Stake Your Claim!

- March 8th 8:00 AM - 12 Noon
- April 12th 8:00 AM - 12 Noon
- May 11th 8:00 AM - 12 Noon

Or By Appointment - Please Call!

www.ebay.com/str/motherlodemod-elrailroading.com
Email: danraap2021@gmail.com

The Foothills Society of Model Railroaders swap meets
Green Mountain Presbyterian Church
12900 W. Alameda Parkway
Lakewood, CO
9:00 a.m. -11:30 a.m.
on the third Saturday of odd numbered months
(303)989-0087 or (303)985-1491

2025 Rocky Mountain Region Annual Convention

Durango Colorado, May 15-18, 2025

Mail-in REGISTRATION FORM

Name: _____ NMRA # _____

Address: _____ Division _____

City/State: _____ Zip _____

email: _____ Phone _____

Primary Registrant	Early Registration	ends Dec 31st	$45	_____
	Regular Registration	ends March 15th	$55	_____
	Late Registration	ends April 30th	$65	_____
Spouse			$20	_____
Child			$20 (ea)	_____
Non-NMRA Primary Registrant			$20	_____
	EXTRA FARE			
Yard Tour (Adult)	Noon Friday or Saturday (circle)		$15 ea	_____
Yard Tour (under 12)	Noon Friday or Saturday (circle)		$7 ea	_____
Parlor Car Train Ride*	Limited to 24 seats		$230 ea**	_____
Coach Train Ride*	Blocked as possible		$105 ea**	_____
Galloping Goose Ride	In negotiation Jan 2025		$180 ea**	_____
			Total	_____

***Thursday Round Trip: Durango-Silverton** ****2024 standard prices, discount possible after Jan 1st**

Note: Yard tours and train seats are available for limited time and may be unavailable at later dates

Depending on early bookings, we should get a discount for train prices, which won't be known until after Jan 1st. In that event, excess payments will be refunded. Parlor Car reservations may be unrefundable after March 15th. Train ride reservations will be refundable per D&SNGRR standard refund policy. In the event of cancellations (weddings, graduations, unforeseen events, etc.), registration refunds will be made available in as much as possible.

Print this page, fill out, and Mail form and check to:
Rocky Mountain Region Convention
c/o Denny Krausman
9609 Silver Hill Cir
Lone Tree, CO 80124-5420

Point of Contact: Blaine Holbrook, bholbro1466@earthlink.net , 801-580-1459
Point of Contact: Denny Krausman, dkrausman@msn.com, 303-880-1879

The Train Club Visits Mr. Lennen
By John Keiss

Wham! Ms. Slouch slammed the books down on the desk and yelled "Here are the reading materials you said you could not find. Now stop doodling trains and get to work!" Jay looked up, said nothing and got to work. Saying anything would be considered backtalk. A while later another teacher, Ms. Lennen, came over to Jay's desk and said to him "You really like trains, don't you?" Jay responded "Yes. We even have a train club we like them so much." Ms. Lennen said "Would you and your train club like to visit my father's train layout next Sunday afternoon? He likes trains too." Jay responded with "Yes" and got the time and address. After class he went to tell the club about the visit.

Jay found Nelson, the oldest of three brothers belonging to the club, in the hallway sitting on a plywood representation of an airplane, moving the control surfaces with the stick. It was his school project. Aileron left, aileron right, rudder left, rudder right, elevator down, elevator up and ---SNAP. The line connecting the stick to the elevator had broken and Nelson's project presentation was in a few minutes. The boys spliced a shoelace from Jay's tennis shoe into the broken line and the elevator worked again. "Ms. Lennen invited the club to see her father's layout Sunday afternoon.
Here is the address and time." Said Jay, handing Nelson the directions.

"We'd better get going or we'll be late." Jay's father said as he hung up the timing light and closed the hood. Jay and his brother got into the car along with their dad. The car backed out of the garage and into the street. It was a basic key and heater model Chevrolet Bel Air with a 327 V8 and a two speed Powerglide transmission. It did not come with a radio. Repeated phone calls to the club yielded nothing. They were all supposed to meet at Jay's house and head out from there. A light rain was falling and Jay's dad had put the two speed wipers on the low setting. They drove on in silence to Mr. Lennen's house across town.

Jay's teacher met them at the door and took them downstairs to an uncluttered, nicely painted and well-illuminated train room. "It's the HO Railroad That Grows" Mr. Lennen said, proudly holding up Linn Westcott's book. "I've completed it all the way to the drop leaf yard stage." Jay's dad and the two boys watched as a Tyco 2-8-2 Mikado pulled a five-car freight train around the lower level and into a return-loop. The train then ascended an incline and went through a tunnel, emerging on the High Line above the town and yard, where it stalled. "I have trouble keeping the track clean inside these truss bridges." Mr. Lennen said. He then bumped the table lightly and the train proceeded.

There was a commotion upstairs and the rest of the train club came thundering down the steps. "That ain't nothin'. Irwin takes up the whole basement." "Nelson!" His father scolded with a slight chuckle. Everyone watched as Mr. Lennen brought a second train out of the small yard and onto the main line. It was a four-car freight with a bobber caboose pulled by a Tyco 0-6-0 with a slope back tender. Mr. Lennen worked the control panel like a maestro at the keyboard as he adjusted throttles and threw toggle switches. The trains were running all over the layout. Up the inclines, across the bridges, through the tunnel past the mill pond and the spur to the Black Bart Mine. They took sidings to let the other pass. They reversed direction and followed one another, then reversed again. After a while Mr. Lennen put the smaller train back into the yard and things settled down with just the original train making the circuit.

Mr. Lennen and Nelson's dad were discussing the pros and cons of Kadee couplers when Jay's teacher called for everyone to come up for refreshments that her mom had made. Everyone enjoyed sugar cookies and lemonade, thanked the Lennens, and went home. The sun came out later that afternoon and the train club got into a heated mud clod fight with the dinosaur club down the street.