

October 2023 Volume 16 Number 10

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.....Larry Stephens
 Herald Editor.....Bob Hochstetter



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Layout of the Month

This month's three photographs are from Barry Allison's HO scale layout. They were taken by the editor during the Sunrise Division's layout tours on July 22, 2023.

I need photographs for the Herald. If you have photographs of your layout that you would like to have included here, please send them to me. (ed.)



From the Editor

I was unable to attend the October meeting of the Sunrise Division. Thank you, Dave Clifford, for taking notes for me.

The meeting did not follow the normal format. Due to a lack of time, Show 'n' Tell did not occur. Consequently, the next meeting's Show 'n' Tell will feature both *Anything Goes* and *Streetcars/ Trolleys*. I am looking forward to seeing many interesting items next month.

October Meeting Notes

The regular monthly meeting of the Sunrise Division of the National Model Railroad Association was held October 5, 2023, at Holy Love Lutheran Church. Superintendent William Boorman conducted the meeting. The meeting was called to order at 7:00 p.m. Fifteen members attended in person, and two joined via Zoom.

Self-introductions were the first order of business.

Announcements, Tool Time, the Clinic and more followed the self-introductions. All of these are included in this issue of the Herald. The meeting concluded at 9:02 p.m.

Next Meeting

The next meeting will be Thursday, November 2, 2023, 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

This month's video features Malaysia's Jungle Sleeper Train, a modern meter gauge railroad.

<https://www.youtube.com/watch?v=ER-NITNuF6So>

Upcoming Tool Time

November—The Computer as a Tool-Part II
Larry Stephens

Upcoming Clinics for 2023

December – My Life Riding the Rails—Rich Flammini

Upcoming Show 'n' Tell Themes for 2023

November – Anything Goes
and
Streetcars/Trolleys

December - Cabooses

Reminder

In an attempt 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

Larry Stephens reported that work on the modules had resumed. Track was being ballasted, ground cover was being applied and repairs were being done on the older sections of the modules.

Announcements

Gary Myers reminded everyone of November's Regional Convention in Albuquerque, New Mexico (<https://www.rmr-nmra.org/2023%20RMR%20RARG%20Announcement.pdf>) and of the opportunity to meet NMRA President Gordy Robinson on October 29, 2023 at the Colorado Model Railroad Museum in Greeley, Colorado (<https://www.cmrmm.org/event/meet-the-president-nmra-president-gordy-robinson-visits-the-cmrmm/>.)

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

Rio Grande Div. 6, Rocky Mountain Region, National Model Railroad Association



MODEL TRAIN SHOW

BIG
OPERATING
TRAIN
LAYOUTS

NEW & USED
MODEL
TRAINS
& ACCESSORIES

FREE Parking!

Saturday, Nov. 11 | 9am-5pm
Sunday, Nov. 12 | 9am-4pm

Balloon Fiesta Park
ALBUQUERQUE

Adults \$10 / Kids Under 12 FREE!

railsalongtheriogrande2023.com  

Illustrations Courtesy of RMRTD/NMSL&RHS

Tool Time

Larry Stephens presented **The Computer as a Tool Part I**. He has graciously converted his PowerPoint presentation into the Word document presented here.

The Computer is now an Important Tool In Our Hobby

We need it for JMRI.
We buy on line.
We attend meetings by Zoom.
We use software for making window details, layout design, etc.
The manuals for the CV's are on a PDF in our computer.
And the list goes on.

Windows 11 Do you need it?

Not Right Now, But

Windows 10 is all you need at least for the time being. Windows 11 as of now is just 10 with some window dressing but it is now only a 64 bit system.

Then why did Microsoft create Windows 11?

Require Windows 11 to run on newer computers that have TPM and Secure Boot. This will put money in both hardware and software vendors pockets. This theory has been showing up a lot on the Internet.

The truth is a lot more complicated. Windows is now only a 64 bit system. The hardware needs to be optimized for 64 bit. Some windows 10 computers started out life as windows 7. Computers had to run both 32 bit and 64 bit.

Microsoft has in the works:

There is code left over from Windows XP that is going to be recoded. There is no need to insure 32 bit operation.

A unified printer driver. No more drivers from the printer manufacture. Again, 64 bit only.

Improvements in the speed of Windows 11. As Windows 11 under goes changes, only computers with 8th generation and later processors can run Windows 11.

SO

Windows 11 will not run right or not at all on older computers. You'll need a computer with at least an 8th generation Intel processor.

There are ways to go back a few generations of processors and load Windows 11. Microsoft may deny updates sometime in the future to these pre 8th generation.

UEFI bios is a requirement. Some older computers do not have this.

UEFI bios allows the bios to do so much more for the hardware and Windows 11. It replaced the Legacy BIOS.

PCIe 3.0 and PCIe 4.0 is a speed specification of the I/O part of the system board. Newer system boards have this. Windows 11 can be optimized for this speed.

M.2 SSD (Solid State Disk) is a must to benefit using Windows 11 but not required.

An M.2 SSD is about 68 times faster than a disk drive.

Why did Microsoft pick TPM and Secure Boot as a requirement? You don't need them to run Windows 11.

Because system boards with these two requirements contain the following technologies.

UEFI bios	2002
USB 3	2008
PCIe 3	2010
Secure Boot	2011
M.2 SSD	2012
TPM	2014
8 th Gen Intel	2017

The date is when the specification was released, not when implemented.

What Happens if you stay with Windows 10?

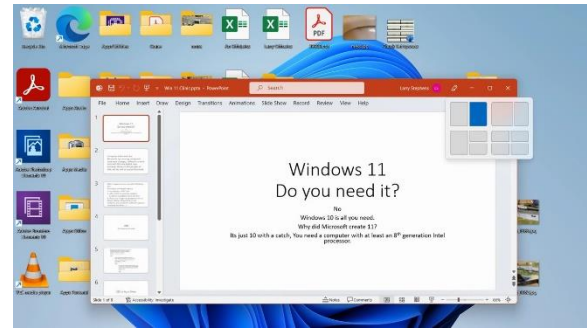
Nothing in the beginning but

1. As of now no more updates—that's mostly ok.
2. After October 2025 no more security updates. That could be a problem down the line. If you're using Defender as your virus program, you might have to switch to a third party virus program.
3. If you use a high end program such as photo editing, 3D printing or cad software, you could find software updates requiring windows 11.
4. Windows 11 updates will address issues with hardware and software that will not be updated in Windows 10.
5. Right now the learning curve to learn Windows 11 is less than an hour. In two to three years, Windows 11 might not even be recognizable.

Update: From the time I started this tool time, Windows 11 is now starting to leave Windows 10 in the dust. Changes and additional apps and tools have arrived and more are on the way.

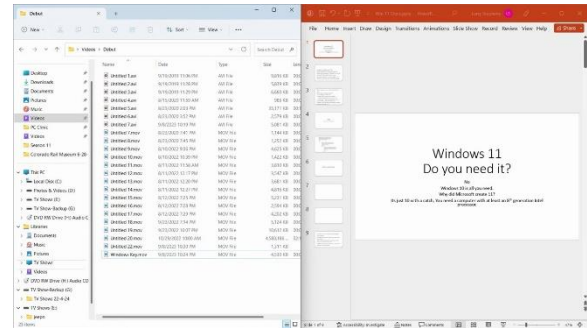
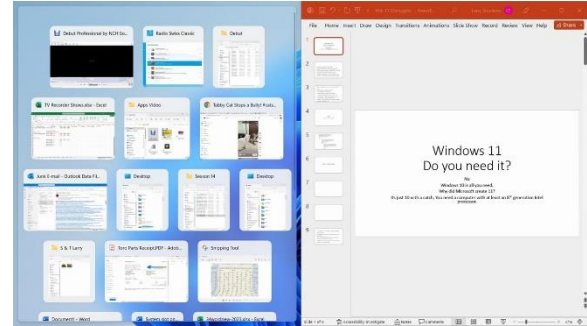
Start Menu Win 10

It is left orientated.
It shows all apps on the left, which is only needed occasionally.



Start Menu Win 11

It is now centered
For my use, I like it better than Win 10
This is a clip from the Tool Time video
From the menu you can access programs, all apps, settings,
power and recent files opened



USB 3 vs 2

USB 3 is twice as fast as USB 2, writing
USB 3 is ten times as fast as USB 2, reading

File Folders Win 11

Viewing of two folders is improved
This is a clip from the Tool Time video
Example: I will bring up Power Point and I need to look at
another folder.
At the upper right, the right window is highlighted by the
mouse pointer (blue), left click and Power Point will come up
in the right half of screen. The next file loaded will be in the
left half of the screen.

USB 2 Flash Drive in a USB 2 port			
Read (MB/s)	Write (MB/s)	Read (MB/s)	Write (MB/s)
30.33	14.66	31.59	19.69
30.62	16.12	32.49	19.70
5.22	1.98	4.16	5.58
4.49	1.64	3.81	5.10

USB 3 Flash Drive in a USB 3 port			
Read (MB/s)	Write (MB/s)	Read (MB/s)	Write (MB/s)
305.32	36.43	134.28	58.90
300.61	35.61	134.62	50.90
13.31	16.68	9.69	0.15
12.77	16.34	6.14	0.10

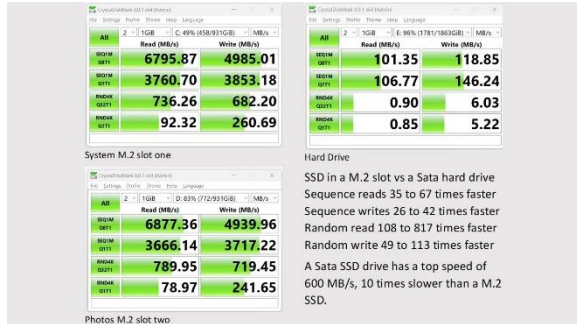
SSD vs Hard Drive

There are two different SSD

Sata and M.2

More on M.2 SSD:

<https://www.youtube.com/watch?v=Hvf1eTieXOI>



Intel Processors

Intel Processor Series

Celeron, i3, i5, i7, i9

Intel Processor Series

Celeron: Email-light use of Word & Excel.
 i3: Email-moderate use of Word & Excel.
 i5: You use Office Pro, Power Point and edit photos and videos. Even a 3D printer. You're retired.
 i7: All the above on a daily bases. You work in an office.
 i9: If you need an i9, you'll already know.

Components of a system board

Processor: Intel or AMD

Chip set:

Determines the number of Sata ports, memory slots, memory type, memory speed and many other functions.

Interface:

Plug in boards and M.2. SSD.

PCIe 3.0 common. Used for slow devices

PCIe 4.0 common. Used for SSD and GPU

Memory:

DDR4 is the current type and still the best value for home computers.

DDR5 is the newest and works better with 13th generation processors. The speed available is determined by the processor and chip set.



MSI Cubi N ADL Mini PC: Intel Celeron N100, 4GB RAM, 128GB SSD Windows 11 Pro Entry \$263



Dell OptiPlex 7000 Series 7080 Micro Form Factor Mini Business Desktop, Intel Core i5-10500T Processor, 16GB RAM, 512GB SSD, Windows 11 Pro \$599



Lenovo V50T G2 Business Desktop, Intel Core i7-10700, 32GB RAM, 1TB SSD, Wi-Fi, Wired Keyboard & Mouse, SD Card Reader, DVD-RW, HDMI, Windows 11 Pro \$789

Both are a good buy but are now three generations behind in their processors

Examples of low to high priced computers processor.

I recommend at least an i5 12th generation. It should be good for 10 years.

Or you can take the easy route



Clinic

Gary Myers presented the evening's clinic on numbering and weathering freight cars.

Make Your Freight Cars Awesome & Look Prototypical Part I Numbering & Weathering

Gary Myers
 Sunrise Division 02
 Rocky Mountain Region
 National Model Railroad Association

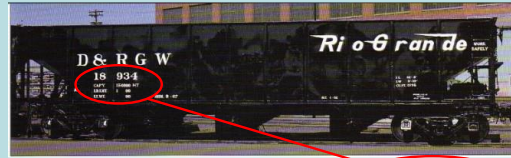


Why bother, why should you care?

- Today's model railroads have become more sophisticated, better models of the actual railroads
- Operating model railroads has grown into a more significant part of the hobby than ever before with an ever more increasing emphasis on realism
- Designing your layout for operating with several engineers has become more and more popular
- This has led to an increased level of realism as more special interest groups, i.e., Modeling & Historical Societies, have gained popularity and membership
- Making your models "look" more like the prototype without having to purchase expensive exact replicas (i.e., brass, resin, etc.) **can add value** to your layout and its character, charm, and operating experience.



Rio Grande Coal Hoppers



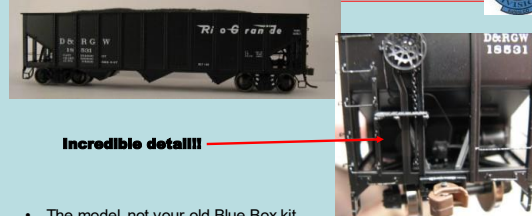
- The prototype; 1952 D&RGW HT Series 18500-18999
 - 42' 8" IL, 10 exterior side stakes
 - Employed in Utah coal service, and later in limestone service from Keigley
 - Wine door locks, Miner, Universal or Equipco hand brakes
 - At Burnham Shops, awaiting Reweighing (1967 photo)
 - Note that the car is 15 years old in the photo

Steps to Updating Your Car Fleet



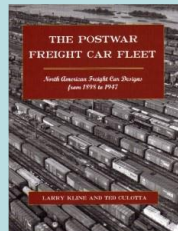
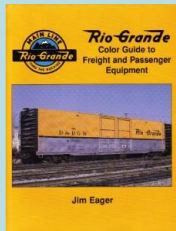
- Step 1 - Research
 - Find appropriate materials to help you
 - Review photographs of the prototype or similar cars
 - Use the vast resource of RR books available
 - Check Historical Societies for info, a great reference and probably worth joining if you want to model a prototype
 - The INTERNET
 - Learn the appropriate equipment/arrangement the car should or most likely would have for the era and locale of your RR
- Step 2 - Selection
 - Determine what kind of cars your railroad needs for what facilities you will have and that they are appropriate
 - Look at what cars are available by what manufacturer and determine what best fits your budget
 - Modeling a prototype RR simplifies this step. If the prototype had them, then they had reason to for these cars to be there. Look at the facilities the RR had on-line, model what you can and get the cars for those industries.

Step 2 – Selection: Athearn R-T-R



- The model-not your old Blue Box kit
 - Highly detailed, separate grab irons, fine stirrups, available in 12 prototypically correct numbers, detailed brake lines, coal load.
 - Model Upgrade Recommendations:
 - Upgrade couplers to Ka -Dee #58
 - Check wheels for possible upgrade
 - Add real coal to coal load
 - Verify weight
 - Re-number & weather

Step 2 - Research

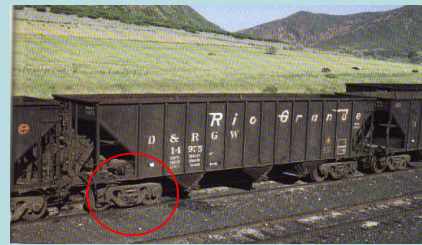


- Prototype Equipment Guides are excellent sources for photos and especially learning more detail about the prototype.
- General Research Books also enable you to match your models to the prototype add realism and improve accuracy to your fleet appropriate for your line.

Rio Grande Coal Hoppers



- Not the same car exactly, but a good representation for weathering.
- The photo is 1987 and the car was built in 1966, so about 21 years old
- Note the color of the wheels and trucks especially against the ballast



Step 2 – Selection: D&RGW 40' 3 Bay Ribbed Hopper



- Recently, Athearn has made available the Denver & Rio Grande's SD40T-2 Tunnel Motor, which is remarkably close to the prototype
- Athearn has also released previously 40' 3 -Bay Ribbed Hoppers, which will go very well with this engine to make some nice long unit trains.
 - As we will see, the Athearn 3 Bay Hopper is an excellent match to the prototype
 - Depending on the RR and era, unit trains may or may not be appropriate.
 - D&RGW unit trains were still uncommon in the 1940s
- Determine what your Railroad will run and make sure the cars used have business running on that line
 - Unit trains also make good trains running through a territory, as in the case of today's example.
 - Unit trains also require the renumbering of several cars, to avoid the repetition of a single number.

Rio Grande Coal Hoppers



- Also not the same but similar car, with heavier weathering.
- The photo is 1979 and the car was last shopped in 1977, so only 2 years of weathering
- Note the interior of the car
- Possibly hauled limestone on Monarch branch, note ground color



Rio Grande Coal Hoppers

- Again not the same but similar car, with heavier weathering.
- The photo is 1979 and the car was last shopped in 1977, so only 2 years of weathering
- Note the interior of the car and how dust highlights hatches underneath
- Dust on trucks and ballast similar

Step 8 - Renumbering

- Renumber Your Car to Prototype Numbers and renumber duplicates
 - Do your research to find what numbers are prototypical for your cars
- Renumbering can be complex or simple
 - Remove old numbers and redecal with matching decals; or
 - Remove/paint over old numbers with minimal changes
- Simple Number Translations

4 40 6 3 8 ↔ ↔ ↔

Use a very *fine* brush to 'dot' dabs of background paint over the number to mask portions of the old number, and use the number color to 'dot' in the new number over the old masking

Sometimes the old number may also be easily modified by first scraping part of the number with a sharp x-acto blade. Excess paint can usually be scraped away also to clean up the 'new' number.

With practice and some weathering your 'painted' or decaled new numbers will *blend* in.

Rio Grande Coal Hoppers

- Again not the same but similar car, showing some age.
- The photo is 1985 and the car was last shopped in maybe 1982, built in 1960.
- Note the lettering has actually chipped or flaked away in spots, and the load data and car data are badly worn away. This car was assigned to coke service only as marked

Model Updates

- Step 9 – Distressing the Lettering
 - After the numbers have been updated, use either a weathering brush to vertically streak or an x-acto blade to chip the lettering to give appropriate aging effects.
 - If desired, add small amounts of 'rust', by applying a very light to heavy amount of burnt sienna wash to spots with rust – especially to paint chips, seams, hinges, etc.
- Step 10 – Trucks
 - Disassemble trucks
 - Paint trucks & wheels with Floquil Rail Tie Brown, carefully avoid tire treads, axle points or inside journals.
 - Use small clamps to hold parts (6 per car)
 - Dry overnight
 - Dry brush small amounts of rust (Burnt Sienna) underneath journal boxes and on springs.
 - Leave unassembled trucks aside to be weathered with car bodies.

Model Updates

- Step 3 - Wheels: Upgrade if necessary (Recommend using metal)
 - Improves pulling longer trains by getting less friction on the track,
 - Keeps rails cleaner than the engineering plastic wheels which pick up and spread dirt
 - Test the wheels by spinning them with your thumb in the truck
 - They should hum and rotate freely for a relatively long time
 - If they do not spin freely for very long, replace with after market wheels like Reboxx, Proto2000, etc.
- Step 4 - Couplers: Upgrade if necessary (Recommend KaDee)
 - I use KaDee #58 box coupler and various long shank or whisker versions as the need arises
- Step 5 - Load: Obtain materials (if applicable)
 - For the hoppers, I picked up chunks of coal to smash and grind up from rail yards down in Salida, Durango and Chama
- Step 6 - Extra Detailing (decide if you want more, if you dare)
- Step 7 – Weigh Car – Include all the above & after extra details are added or available
 - Postage scales are available in drugstores, WalMart, etc.

Step 11 - Weathering

- If desired, mask car data and rebuild date for updated shop look.
 - Update Data & Rebuild date if desired, with decals or renumbering technique in Step 8
- Wear Latex gloves to avoid fingerprints
- Apply very light, short bursts of Dullcote to all weathering surfaces: ends, sides, top & bottom
- Apply Bragdon weathering powders of desired colors, with soft & stiff brushes
 - Soft brushes to delicate parts and hard to reach spots the Dullcote will aid in the powders sticking
 - Stiff brushes to primary surfaces, rubbing vigorously to create friction which activates adhesive in the powders
- Apply over an open box which can catch the excess for reuse & storage
- Remove masking from Car Data and Rebuild date
- Apply another very, very light coat of Dullcote to all surfaces.
 - The more Dullcote applied, the lighter the weathering will appear
- Repeat these steps for the trucks, but do not get weathering powders in journals where axle points sit

Step 7 – Car Weighing

RP-20.1 NMRA Car Weight

Scale	Initial Weight (ounces)	Additional Weight per Inch Body Length (ounces/in)
O	5.00	+1.00
On3	1.50	+0.75
S	2.00	+1.50
Sn3	1.00	+1.50
HO	1.00	+0.50
HOOn3	0.75	+ 0.375
TT	0.75	+ 0.375
N	0.50	+0.15

Example: HO 40' car = 1 oz + (40'/87' x 12"/1') x .50 oz/in = 1+(5.52 x .50) = 3.76 oz

N 40' car = .5 oz + (40'/160' x 12"/1') x .15 oz/in = .5+(3.0 x .15) = 0.95 oz

Weights in excess of above Optimal Weight generally degrade performance by increased drag/friction on train (RP-20.1)

Optimal Weight recommended by NMRA RP20.1 to make up for short comings of rough trackwork and sharp curves

Cars that are too light in long trains going around curves will derail

Suggestion: For layouts with broad curves and Cars with metal wheels, cars can generally weigh slightly less, approximately -.5 oz for HO (these standards were developed for cars with plastic wheels)

Step 12 – Final Assembly

- Add load
 - In this case, the top rims of the hopper were all weathered, and the coal load added later so the coal itself wouldn't block cracks and get weathered around the edges.
- Insert wheels into trucks
- Reattach Trucks to Car
- Add new car to your freight roster
 - Generate a new Car Card with Waybill
- Place Rolling Stock on Layout & Enjoy

Auction

The Sunrise Division's unofficial auctioneer, Rich Flammini, auctioned an HO scale covered hopper produced by Scale Trains as illustrated here. This limited-edition car was produced for the NMRA's 2023 convention, the Texas Express.

The winning bid was \$80, and the proceeds were deposited in the Division's treasury.



A second identical car will be auctioned at the November meeting. If you would like to bid on the car, attend the November meeting, in-person or on Zoom.

2023 RMR Annual Convention

RAILS ALONG THE RIO GRANDE

Albuquerque, NM November 10-12, 2023

Registration Form (Until October 27th)

ATTENDEE	1 Day*	All Days**
Primary	\$55	\$75
Each Household Family Member	\$30	\$45
Non-NMRA Member Primary Additional Fee	<u>\$20</u>	<u>\$20</u>
Total Registration	_____	_____

* includes one breakfast buffet, evening refreshments

** includes two breakfast buffets, two evenings refreshments

Primary + Family (household) members attending: _____

Names (to appear on badges): _____

Local Division: _____

Please circle: 1 Day or All Days

Dates:	Nov 9	Nov 10	Nov 11	Nov 12
Please Circle: Planned Arrival Date	Thurs	Fri	Sat	Sun
Please Circle: Planned Departure Date	Thurs	Fri	Sat	Sun

Please check here if staying at the Convention Hotel _____

Please make checks payable to: **Rocky Mountain Region**

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

Prices subject to change, registration cost increase after October 27th

Point of Contact: Gary Myers, garymyers06@comcast.net, 720-837-4393

Point of Contact: Denny Krausman, dkrausman@msn.com, 303-880-1879