

OFFICIAL TIMETABLE No. 85



**Virtual National Convention
hosted by:
Pacific Coast Region,
National Model Railroad
Association.**

**Effective July 6 - 10, 2021
Santa Clara, California**

\$5.00

How to Navigate the convention

Welcome to the Rails by the Bay 2021 National NMRA convention. Here is how you navigate the convention.

Use a laptop or desktop computer -

Tablets and phones will allow you to attend, but will provide a far less-than-optimal experience.

Update your Zoom software -

This ensures you are getting all the features you need.

Change your name -

change your name in Zoom to your full name and your location - just like a name tag at a real convention!

Convention Structure -

There are 2 Zoom webinars that are our clinic tracks and a Zoom meeting that is our Great Hall. The Great Hall is the gateway to all of our breakout rooms.

Getting the meeting links:

- the email sent to you each day
- a convention webpage just for registrants (link sent to you in a convention email)
- the chat windows throughout the convention. Volunteers are there to post links to the different areas of the convention.

Viewing Clinics -

the 2 webinars (called “Daylight” and “Zephyr” Clinic Tracks) are for viewing clinics. Attendees do not share video or audio in the clinic tracks.

Attendees **DO** have:

- **TEXT CHAT** that can be accessed at the bottom of the screen. Unlike in-person clinics, we encourage attendees to chat during the clinics using this text chat box.
- **“Q & A”** If you want to ask the clinician a question, use this window. In most cases, the clinician will be on hand to answer. In case the question does NOT get answered, you’ll have a chance to ask it after the clinic in a Clinic Goes On breakout room in the Great Hall. Links will be shared in chat at the end of the clinic.

The Great Hall -

The Great Hall is the location to go for questions and the breakout rooms. It is a typical Zoom meeting so all the features you are accustomed to are there. In the Great Hall, your webcam and your microphone are both active. Just like on Zoom calls, we ask that you **please keep your microphone MUTED whenever you are not actively engaged in a conversation.**

Breakout Rooms -

- **To enter** - Click on the Breakout room icon at the bottom of your screen and get a list of all the breakout rooms and who’s in them. Some of the breakout rooms will be dedicated to specific topics, but many will be available for people just to hang out and socialize in. To enter a breakout room, hover over the area that tells you the number of people in the room and a join button will appear, allowing you to join the room.
- **To exit** - click the button toward the bottom that says “Leave room” then select the option you want from there.

Questions? -

Look for volunteer staff throughout the convention or in the Great Hall. They will have “staff” before their name.

Have a great time!

7221

The Cover and its colors.

Members of our committee are avid fans of the Golden State Warriors Basketball team. Their team colors inspired the cover of this timetable.

Zone ± GMT	AEST +10	NZST +12	International Date Line	HST -10	PDT -7	MDT -6	CDT -5	EDT -4	GMT 0	BST +1	CEST +2
	Australian Eastern Standard Time			Hawaii Standard Time	Pacific Daylight Time	Mountain Daylight Time	Central Daylight Time	Eastern Daylight Time	Greenwich Mean Time	British Summer Time	Central European Summer Time
	2:00 a.m. 3:00 a.m. 4:00 a.m. 5:00 a.m. 6:00 a.m. 7:00 a.m. 8:00 a.m. 9:00 a.m. 10:00 a.m. 11:00 a.m. 12 Noon	4:00 a.m. 5:00 a.m. 6:00 a.m. 7:00 a.m. 8:00 a.m. 9:00 a.m. 10:00 a.m. 11:00 a.m. 12 Noon		6:00 a.m. 7:00 a.m. 8:00 a.m. 9:00 a.m. 10:00 a.m. 11:00 a.m. 12 Noon 1:00 p.m. 2:00 p.m. 3:00 p.m. 4:00 p.m. 5:00 p.m. 6:00 p.m.	9:00 a.m. 10:00 a.m. 11:00 a.m. 12 Noon 1:00 p.m. 2:00 p.m. 3:00 p.m. 4:00 p.m. 5:00 p.m. 6:00 p.m. 7:00 p.m. 8:00 p.m. 9:00 p.m. 10:00 p.m. 11:00 p.m. 12 Noon	10:00 a.m. 11:00 a.m. 12 Noon 1:00 p.m. 2:00 p.m. 3:00 p.m. 4:00 p.m. 5:00 p.m. 6:00 p.m. 7:00 p.m. 8:00 p.m. 9:00 p.m. 10:00 p.m.	11:00 a.m. 12 Noon 1:00 p.m. 2:00 p.m. 3:00 p.m. 4:00 p.m. 5:00 p.m. 6:00 p.m. 7:00 p.m. 8:00 p.m. 9:00 p.m. 10:00 p.m. 11:00 p.m.	12 Noon 1:00 p.m. 2:00 p.m. 3:00 p.m. 4:00 p.m. 5:00 p.m. 6:00 p.m. 7:00 p.m. 8:00 p.m. 9:00 p.m. 10:00 p.m. 11:00 p.m. Midnight	4:00 p.m. 5:00 p.m. 6:00 p.m. 7:00 p.m. 8:00 p.m. 9:00 p.m. 10:00 p.m. 11:00 p.m. Midnight	5:00 p.m. 6:00 p.m. 7:00 p.m. 8:00 p.m. 9:00 p.m. 10:00 p.m. 11:00 p.m. Midnight 1:00 a.m. 2:00 a.m. 3:00 a.m. 4:00 a.m. 5:00 a.m.	6:00 p.m. 7:00 p.m. 8:00 p.m. 9:00 p.m. 10:00 p.m. 11:00 p.m. Midnight 1:00 a.m. 2:00 a.m. 3:00 a.m. 4:00 a.m. 5:00 a.m. 6:00 a.m.

All listed times in the timetable are Pacific Daylight Time

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First-time attendees may not be familiar with abbreviations frequently seen in this and other convention materials.

C/MRI	Computer/Model Railroad Interface
DC	Direct Current
DCC	Digital Command Control
DSA	Distinguished Service Award
Freelance	Modeling other than strict prototype
HLM	Honorary Life Member
LCB	Local Control Bus
LCC	Layout Command Control
LDSIG	Layout Design Special Interest Group
MMR®	Master Model Railroader
MWTM	Modeling with the Masters
OPSIG	Operations Special Interest Group
Prototype	Real Railroad
RPM	Railroad Prototype Modelers
SIG	Special Interest Group

Notice of 2021 NMRA Annual Meeting

By Rick Coble
NMRA Secretary

The National Model Railroad Association, Inc. will hold its 2021 Annual General Meeting Sunday, August 15, 2021 at 3 PM EDT.

Due to the cancellation of the 2021 National Convention, the meeting will be held virtually through the video conferencing platform GoToMeeting.

Registration is required to use GoToMeeting. Registration opens July 8, 2021 and closes August 1, 2021. To register, contact the Vice President Administration at VPresident@nmra.org

You may send questions to the President prior to the meeting. Questions may be on any aspect of the NMRA. Questions sent prior to the 2020 meeting touched on many topics, including standards, the Achievement Program, and conventions. Questions and answers to your questions will be posted on the NMRA website no later than August 13, 2021. Meeting minutes will be posted no later than Sunday, August 22, 2021.

Questions to the President should be submitted in advance to the Secretary, beginning July 8, 2021 and no later than August 1, 2021 at Secy@nmra.org.

Rick Coble
NMRA Secretary



All odd numbered pages have a link in the footer to return to page 4. [Contents](#) Page

Acrobat Reader does not provide on the screen the handy BACK button that web browsers feature. ALT+LEFT ARROW is this useful function. The equivalent on a Mac is Cmd-[

Information in this timetable is as complete and accurate as possible at the date we closed for printing. Final close off date was: June 28, 2021.

Changes will be posted daily on the Rails By The Bay website www.pcrnmra.org/NMRA2021/

Welcome to Santa Clara and the
Rails By The Bay 2021
NMRA Virtual National Convention

Welcome everyone to Rails by the Bay.

What began as a plan for a knockout in-person convention in the heart of Silicon Valley was forced to pivot into an online venue. In addition to the many fine clinic presentations, we have tried to include some of the elements that make attending any convention more than just presentations, opportunities to interact with your fellow modelers.

In addition to the live Q&A sessions following the clinic presentations, we have provided opportunities to not only experience some of the great layouts in our area through video tours, but panel discussions that allow you to meet and ask questions of the layout owners.

Please take advantage of the Great Hall, an opportunity to meet and chat with your old friends and people with similar modeling interests who are potential new friends. These meetings in the “hallway” are one of the great pleasant opportunities at in-person conventions, we have tried to provide a reasonable alternative in this digital venue.

Don't forget to visit the Modelers Showcase, to view projects your fellow modelers have been working on, check out the vendor rooms during the meal breaks to see what is new and to let them know what new projects you would be interested in. Be sure to catch the keynote address by Michael Gross, actor and well known ATSF modeler.

None of this would be possible without the hard work and dedication of the convention committee, those people who have given hundreds of hours of their time over the last three years. Displaying great flexibility, they pivoted to an online venue, embracing technologies to expand our online offerings. My sincerest thanks to all of them for making this all possible.

Ed Slintak
Rails by the Bay
Chair



National Model Railroad Association
Meetings and Trade Show Department Staff

Department Manager	Robert Amsler
Convention Manager	Ray deBlicck
Assistant Convention Mgr	Ed Slintak

Rails By The Bay 2021
Convention Team:

Chairman Emeritus	Ray deBlieck
Chairman	Ed Slintak
Secretary	Lisa Gorrell
Publicity	Chris Palermo
Treasurer and Registrar	Bob Ferguson
Webmaster	Dave Grenier
IT	Bob "Jake" Jacobsen
Layout Tours	Paul Deis
Volunteer Coordinator	Cydney George-Abatecola
SIG Activities	Seth Neumann
Clinics Co-Chair	Bruce Morden
Clinics Co-Chair	Clifton Linton
Modeler's Showcase	Frank Markovich, MMR®
Modeler's Showcase	Earl Girbovan
Timetable	Paul Hobbs
Company Store	Dave Houston
Member at Large	Pat LaTorres
Technical Team	Seth Neumann
	Cydney George-Abatecola
	Bruce Morden
	Clifton Linton
	Phil Edholm
	John Abatecola
Recording Engineers	John Abatecola
	Phil Edholm
	Heath Hurwitz
	Peter Parkinson
	Jon Schmidt
	John Wiley

NMRA Board of Directors

(2021 - elected to position in 2021, taking office at noon July 2, 2021, and replacing the incumbent immediately above.)

AL North American Director	Jim Gore, MMR®
AL North American Director	Chris Palermo (2021)
AL World Wide Director	Gordy Robinson, MMR®
(Replacement TBD at BOD Meeting July 2, 2021)	
Atlantic Director	Mike Arnold
Canada Director	John Bate
Central Director	William Neale, MMR®
Eastern Director	Bob Hamm, MMR®
Eastern Director	John Doehring (2021)
Pacific Director	Rob Peterson
Regional Advisory Council	Bob Weinheimer, MMR®
Western Director	Didrik A. Voss, MMR®

Officers of the NMRA

President	Peter Magoun, MMR®
President	Gordy Robinson, MMR® (2021)
Vice President - Admin	John Stevens
Vice President - Projects	Gerry Leone, MMR®, HLM
Vice President	Rick Coble (2021)
Secretary	Rick Coble
(Replacement TBD at BOD Meeting July 2, 2021)	
Treasurer/CFO	Frank Koch, HLM
NMRA Canada President	Ed Molenkamp

NMRA Department Heads

Administrative	Jenny Hendricks
Development/Fund Raising	Alan Anderson
Education	Bruce De Young
Howell Day Museum	Allen Pollock, HLM, DSA
Information Technology	Ben Sevier
Marketing Consultant	Christina Zambri
Meetings and Trade Show	Bob Amsler
Publications	Don Phillips
Standards and Conformance	Carl M. Smeigh, Jr.

NMRA (Past) President's Welcome

Welcome to Rails by the Bay 2021!!

Yes, the pandemic has left us awash in unknowns, but thanks to a dedicated Convention Team and several miracles of modern technology we're able to enjoy a number of clinics and other arrangements to help us reconnect and share ideas, questions and answers with our friends and fellow model railroaders through this virtual event. It's a different format, to be sure, but it also allows us to gather from all over the world without the necessity of travel in these uncertain times.

Please embrace the concept, give a word of thanks to the Host Committee and the Meetings & Trade Shows Department folks who have put this event together for all of us to enjoy.

If this is your first National Convention, I urge you to wade into it just as far as you can, for this is an opportunity to meet friends you didn't know you had, make friends with some of the "Big Names" in the hobby, find out that these folks are just as excited about this great hobby as you are, and learn about aspects of the hobby that you may not have known existed. Remember that everyone "here" was at one time a "first-timer," so don't be afraid to engage and start asking questions! If this is a return visit to a National, please engage the first-timers, welcome them to the fold, and share your joy in this big family reunion, for that's what this convention really is—a big family reunion.

Many thanks to all in our local Host Convention Committee and to our own Meetings & Trade Shows Department volunteers, who have worked together for over five years to put this Convention together. Their, and our, goal is to provide the best experience possible for attendees and showcase the benefits that membership in the NMRA offers. Please be sure to thank them when you see them at work over the next few days.

Let's all make the most of a less-than-perfect situation and enjoy this great hobby together!

Pete Magoun, MMR®

President,
National Model Railroad Association 2018 - 2021

[From 2019 officer term changeover is 12 noon the day before the Summer BOD meeting, July 2 in 2021, thus the opportunity to recognize both incumbents.]

July 2021

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1	2	3
4	5	6	7	8	9	10
		NMRA National Convention				
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

NMRA President's Welcome

Dear Fellow Conventioneer,

As NMRA President, I want to welcome you to the second virtual convention from the National Model Railroad Association. The pandemic has forced the cancellation of both of our last two National Conventions and whilst it would be nice for us to be able to meet in person, the virtual medium does allow us to enjoy & share our hobby together.

Over the past year and a half many of you will have embraced new technology and experienced the global reach of our hobby through the many virtual model railroading events that have taken place. I know that some of the people attending this convention will have never been to a face to face convention before for many reasons and I am pleased that we are able to bring the 'convention' to your home.

The team from Rails by the Bay, have put together five days of activities for you, sharing know how from some of the best clinicians in the NMRA. It's always an opportunity at conventions to meet new & old friends and during this virtual event you will be able to meet with other model railroaders in the 'Great Hall' or one of the many breakout rooms. The nature of this event allows for clinicians from across the globe to share their knowledge with you, however, I know that the team have also got a good balance of topics and maintained a local flavor.

Let's not forget the layout tours, in this virtual world there is no need to carefully choose which tours to attend and then spend hours on a bus with a quick tour round the basement and onward to the next one. The team at Rails by the Bay have brought you videoed layout tours that you can watch at your leisure before joining the layout owners for a Q&A session during the event.

Normally I'd now be encouraging you to go and visit all the other activities in our host city, but that doesn't apply this year so please let me encourage you to go and share your experience of the convention with other model railroaders on Social Media.

I am working with the organisers of the convention to find a way for you all to stop by and say "Hello". For the NMRA members present our AGM & Members Meeting, which would normally be held during the convention, will be held on August 15th 2021. You can book your place at the meeting by emailing VPresident@nmra.org before August 1st 2021.

Gordy Robinson, MMR®

President,
National Model Railroad Association 2021 - 2024



NMRA National Convention Clinic or Presentation Videotape and Streaming Policy

The National Model Railroad Association, Inc., strictly prohibits individuals or companies from videotaping clinics or other presentations during the national convention, or streaming video (live or taped) from the national convention, unless all of the following requirements are met:

1. Regardless of whether the company or individual is a for-profit or not-for-profit entity, they must submit to NMRA headquarters (HQ) a notification of intent to videotape or stream. clinic or presentation content. If that party is a company, that company must be specifically identified along with an authorized representative of that company. That document must specify by name exactly which clinics/presentations the company/individual intends to videotape. A copy should be sent to both the Chief Administration Officer (CAO) at NMRA Headquarters (who will be in charge of overall administration and record keeping of this program) and the manager of the Meetings & Train Show department (who will be the arbiter of any issues that arise regarding this procedure during the convention). NMRA HQ will then acknowledge to the individual or company the receipt of that notification in a timely manner.
2. NMRA HQ will notify the clinician that an individual or company intends to videotape or stream his/her presentation(s) (as stated by name), and will send the clinician a videotaping/streaming agreement for each clinic, which must be signed and returned to NMRA HQ. The agreement grants the individual/company the right to videotape/stream, and the right to use the resultant video production in any manner it chooses for up to two years.
3. Once NMRA HQ has received the clinician's signed agreement, a formal agreement will be sent to the individual/company for their signature. The agreement will restate the NMRA's video policy stipulations, and will also re-state the specific clinic titles which are intended to be taped/streamed. This document must be returned to and acknowledged by NMRA HQ before any videotaping/streaming may take place.
4. NMRA HQ will retain the signed agreement in its records, and also forward a copy to the Meetings & Train Show department manager.
The individual/company who is videotaping must bring a copy of the agreement to the convention as proof to the Convention Committee, any NMRA official, or the clinician that s/he has been granted permission to videotape/stream.
5. The introduction and ending of the edited or broadcast presentation must contain the following on-screen verbiage: *This presentation was recorded at the (YEAR) National Model Railroad Association National Convention in (CITY NAME).*
6. In addition, the NMRA logo must appear. The words must remain on-screen for a minimum of 6 seconds. The presentation name and speakers or principal participants must also be named. For example: *"Handlaying Turnouts" presented by Tony Koester*
7. A "ghosted" NMRA logo must appear in the lower right of the screen, and must remain on screen for the entire duration of the presentation. The logo must be large enough to be legible. This graphic should be similar to what television stations across the country are currently doing.

Continued on next Page

NMRA National Convention Clinic or Presentation Videotape and Streaming Policy

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8. In the case of videotaped productions, a master copy of the edited program must be given to the NMRA, with the understanding that the NMRA also has the right to stream that video from its website following a six month waiting period after the program was taped. This six month window allows the individual/production company exclusivity for that period of time. After that time the NMRA can transfer the video to disc and allow members to borrow it from the Kalmbach Memorial Library, or can stream it from its own website.
9. In the case of videotaped productions, a copy of the resultant production must also be sent to the clinician whose presentation was taped/streamed.
10. In the case of videotaped productions, no production can be posted or distributed before the NMRA acknowledges and approves the individual's/production company's intent to videotape.
11. Videotaped productions may be used by the individual/production company in any manner it chooses for up to two years. Should the company wish to use the production beyond two years, it must state its intent to NMRA HQ, who must then notify and receive approval from the clinician. The NMRA, the clinician, and the individual/company will agree upon a duration for use at that time.

The above videotaping policy needs to be plainly stated prior to the convention, in both the convention handout booklet and on the convention website. In addition it needs to be made available to HQ so that individuals emailing, calling, or writing enquiring about taping/streaming may be made aware of the policy.

The NMRA must notify all clinicians and presenters that there is a possibility that an individual or company may be videotaping or streaming their presentation, and that they will be notified beforehand. The clinician or presenter has the right to deny the individual or company videotaping rights. This denial can be for any reason, ranging from the use of copyrighted material in the presentation, to unease in front of a camera. The production company or individual needs to know and agree that the clinician or presenter has the final word on this.

end of policy statement

Virtual Layouts - Alpha Sort

Name in italics is a club

<u><i>Alameda County Central Railroad Society</i></u>	
<u><i>Bay Area Z Scalers</i></u>	
<u>Bull Horn Flats</u>	Ed Gregory
<u>Cal Pacific</u>	Tom Swearingen
<u><i>California Central Model Railroad Club</i></u>	
<u><i>Carquinez Model Railroad Society</i></u>	
<u>Central Vermont Railway</u>	Paul Weiss
<u>Claremont Docks Railroad</u>	Howard Lloyd
<u>Cumberland West</u>	David Parks
<u>Denver & Rio Grande Western Durlin Branch</u>	Dave Adams
<u>Edgewood Pacific Railroad</u>	Richard Eberli
<u>Fern Creek & Western Railroad</u>	Trevor Park
<u><i>Free-mo</i></u>	
<u>Glenwood & Black Creek Railroad</u>	James B. Vail, MMR®
<u>Lost Creek Lumber Company</u>	Paul Claffey
<u>Morada Belt Railway</u>	Dave Stanley
<u>Mystic Mountain Railroad</u>	Ray Turner
<u><i>Napa Valley Model Railroad Historical Society</i></u>	
<u>New York Central Valley Division</u>	Ed Loizeaux
<u>New York Central Railroad: Boston & Albany Division</u>	Chuck Oraftik
<u>Nicasio Northern Railroad</u>	Jon Schmidt
<u>Northwestern Pacific</u>	Ed Merrin
<u>Ohio & Little Kanawha Railroad</u>	Ted Stephens, MMR®
<u><i>Peninsula N-Trak</i></u>	
<u>San Benito Southern Railroad</u>	Kevin and Curtis Hill
<u><i>San Leandro Historical Railroad Society</i></u>	
<u>Santa Cruz Northern</u>	Jim Providenza
<u>Sierra, Carson & Truckee Railway</u>	Dave Connery, MMR®
<u>Sierra Railroad</u>	John Zach
<u><i>Silicon Valley Lines Club</i></u>	
<u><i>South Bay Historical Railroad Society</i></u>	
<u>Southern Pacific Donner Pass Route</u>	Dick & Niles
<u>Southern Pacific Rocklin Sub</u>	Dave Houston
<u>Southern Pacific Shasta Route</u>	Otis McGee
<u>Southern Pacific Vasona Branch</u>	Robert Bowdidge
<u>SP Santa Rosalia Branch</u>	Tony Thompson
<u>State Belt Railroad</u>	Bill Kaufman
<u>The Californian</u>	Paul Patterson
<u><i>Tri-City Society of Model Engineers</i></u>	
<u>Union Pacific Oakland Subdivision</u>	Seth Neumann
<u>Valley Division, Fourth District (ATSF)</u>	Rick Fortin
<u>Virginia & Truckee Railroad</u>	Mike Laine
<u>Western Pacific</u>	Ernie Simard
<u>Western Pacific 1938</u>	Jim Dias
<u>Western Pacific 1967</u>	Steve Hayes
<u>Western Pacific Oregon Division</u>	Mike Coen
<u>Willoughby Line</u>	Guy Cantwell
<u>Wright Railway</u>	Nick Wright
<u>Yosemite Valley Railroad</u>	Jack Burgess, MMR®

Photos and information about many of the layouts is on the [BayRails website](#).

Videos used with permission of John Abatecola,
[YouTube TSG Multimedia channel](#).
<https://tsgmultimedia.com/>

And
[Model Railroad Operations](#)

Virtual Layout Tours

Here's the list of layouts that have online videos you can view to whet your appetite for what is to come in July.

Each layout title links to a TSG Multimedia video, or Model Railroad Operations video of the layout.

During the convention itself several layout owners, indicated below the description, will participate in panel discussions, which registered attendees can join and ask questions of the layout builder.

Alameda County Central Railroad Society HO/O

[HO Scale Layout](#) • [O Scale Layout](#)

ACCRS or "the Pleasanton Club" is located on the Alameda County Fairgrounds in a 100' x 35' building. The club has two layouts separated by a central viewing aisle allowing viewing of both the O scale and HO scale layouts simultaneously.

Both scales are designed to operate either with analog or NCE DCC control. The O scale layout has standard gauge, narrow gauge and trolley operations. The standard gauge only HO layout includes an operating thunderstorm, a drive-in movie, and a port with a 3 foot long scratch built container ship.

Website: accrs.org

Dave Adams On3 [Denver & Rio Grande Western Durlin Branch](#)

[LDSIG Tour](#)

This railroad is a freelanced two headed branch line out of Chama NM on the D&RGW's fourth division narrow gauge line. Durlin is one of the branch terminals with industries representative of those in Silverton CO and Flint is the other branch terminal serving a coal mine based on the big CF&I breaker at Floresta CO. Durango and other points west of Chama are represented by staging, as is Alamosa and other points east of Chama. Prototype scenes include Chama, Cresco, Toltec Tunnel and Navajo.

An 18' x 27' room houses the layout which is a partial double deck design. Track is 100% complete, scenery is 96% complete and only one major structure remains to be built (meanwhile the foam core mock up works fine). 97% of the rolling stock is kit or scratch built, steam locomotives are primarily brass which have all been remotored/regeared/detailed/painted with primarily Soundtraxx decoders installed. Locomotive control is a CVP Easy DCC system with CVP wireless Ops throttles.

Join Layout Panel Discussion Tuesday 7:00 p.m.

Bay Area Z Scalars Z [The BAZ BoyZ Modular Layout](#)

This layout tour video is from The Great Train Show in San Jose, California, on February 26, 2017. The Great Train Show features all kinds of railroad-related memorabilia, as well as several modular layouts. Several of the modules in the layout are award winners, and you will be able to see why in this video.

Come along as we take a look at the San Francisco Bay Area Z Scale "BAZ BoyZ" modular layout. Good things do indeed come in small packages!

Robert Bowdidge **HO**

[Southern Pacific Vasona Branch](#)

[LDSIG Tour](#)

The layout is a two deck 10' by 14' HO layout in half of a two car garage. Track is complete. Most rough scenery and some finished scenery is in.

Operation focuses on switching the canneries, packing houses, and other industries in the valley; commute trains and freights heading to Santa Cruz also run to add additional traffic. A pair of two-man crews do heavy switching during the session.

Layout control is via EasyDCC wired throttles. Most locomotives are sound-equipped; all locomotives are the small steam engines seen on the actual branch. Much of the layout runs in "yard limits", but signals and informal dispatching control the track over the hill (as on the prototype); a 2:1 fast clock sets the pace of the session. Switching is done from switch lists.

Featured in the November 2020 issue of *NMRA Magazine*.

Website: www.vasonabbranch.com/railroad/vasona.html

Jack Burgess, MMR® **HO**

[Yosemite Valley Railroad](#)

[LDSIG Tour](#)

This replica of the Yosemite Valley Railroad fills a two car garage. The layout was completed in June 2011 after 31 years of work; see 2013 *Great Model Railroads*. Full scenery, exceptional detail: prototype modeling. Recreates August 1939 on the Yosemite Valley RR with exact duplication of locomotives, rolling stock, buildings, scenes, and scenery. Over 100 scratch built structures. The rolling stock is scratch built, resin and styrene kits. Operating style is prototypical, and tightly structured reflecting 1939 practices, i.e., little or no non-prototype talking, etc. On the other hand, the prototype involved a lot of waiting so, while the fast clock ratio is high, there is plenty of time for switching and getting the job done. Operations include 2 through freights and two locals operating at scale speeds (typically 15 mph) involving a number of meets.

North Coast DCC with wireless throttles and Soundtraxx decoders, party line telephone, TT&TO, 8:1 fast clock, switchlists, documentation includes employee timetable, fascia labeling, orientation.

Join Layout Panel Discussion Friday 7:00 p.m.

California Central Club **HO/HOn3**

[California Central Lines](#)

An HO and HOn3 club layout located in the historic Agnew Depot, built for the narrow gauge South Pacific Coast Railroad in 1877. Transition-era operations includes both steam and diesel, and dispatching is done differently according to the era.

The 1,000 feet of double-track mainline represents California connections to the Pacific Northwest, Southeast, and East. Fully scenicked with backdrops painted by Mike Kotowski. There is a small dual-gauge branchline. The layout has been featured in *Model Railroader* and *Railroad Model Craftsman*.

Website: calcentralmrc.org

Join Layout Panel Discussion Thursday 7:00 p.m.

Guy Cantwell **HO**

[Willoughby Line](#)

[LDSIG Tour](#)

Double-deck proto-lanced railroad depicting West Coast steam in the 1950s. Scenes along the line are taken from the Sierra, Southern Pacific, Western Pacific, Hetch Hetchy, and Yosemite Valley railroads. Operations based track plan with inventive staging and helix design. Layout features lots of superdetailed and weathered rolling stock.

[Continues on next page]

Hardshell is 80% complete, overall scenery completion is 40%. Duckunder at 60". Control is by CVP DCC.

Website: thewilloughbyline.com/

Join Layout Panel Discussion Friday 7:00 p.m.

Carquinez Model Railroad Society HO **[Crockett Central Railroad](#)**

This HO layout loosely models the area from Oakland, California to Sparks, Nevada, which is a segment of the route of the old Southern Pacific Railroad portion of the original Transcontinental Railroad. The timeframe is from the 1950s to the present, thus allowing both steam and diesel locomotives to be operated.

The majority of the layout is a double-track mainline, constructed in three levels with two large helixes on opposite corners of the layout to provide a connection between levels. The layout is a "mushroom-style" with a narrow, but long tabletop space that is stacked like bunk beds. An elevated walkway allows access to the top level. This design provides the most linear track space without having the tracks unrealistically twist back and forth. Code 100 track is used on the 1st level and helixes only, and code 83 track is used on the rest of the layout. The nominal minimum track radius is 48 inches. Maximum 2% grade is found on the helixes.

Website: cmrstrainclub.org/

Join Layout Panel Discussion Tuesday 7:00 p.m.

Paul Claffey Sn3 **[Lost Creek Lumber Company](#)**

Paul Claffey's Lost Creek bi-level layout was built over the course of about thirteen years. The top deck has scenery around two thirds of it, and it's amazing. This freelanced layout was built for operations.

Paul gives us a look at what operations on his layout are like over the finished portion of the layout, then gives us a brief look at the rest of the unfinished parts. Paul's attention to detail and scratch-building skills are sure to impress even the pickiest modelers.

Join us for a tour of this layout, as it was scheduled to be dismantled within weeks after the video was made.

Mike Coen HO **[Western Pacific Oregon Division](#)**

Proto-freelanced 1970s era. WP from Eugene, OR to Klamath Falls, OR. Heavy mainline, WP w/SP trackage rights, BN, Santa Fe run through trains. 280 ft. double decked mainline in an L-shaped, 22' x 34' room. Track-work 90% complete, scenery 10% complete with some structures. Track Warrants Operations. Car Cards and Way Bills control car forwarding. NCE wireless DCC.

Dave Connery, MMR® HO/HOn3 **[Sierra, Carson & Truckee Railway](#)**

The SC&T is a two-level 10' x 17' layout (Virginia & Truckee on the upper level and Sierra Rwy. on the lower level) connected by helixes. Interchanges with HOn3 West Side Lumber Co. (lower level) and Carson & Colorado (upper level). All of this is in half of a single car garage. The scenery is basically complete. All prototype equipment is appropriate for 1929 with numerous scratch-built prototype structures.

Dave's layouts have been featured in *Railroad Model Craftsman*, May 2000, and *Model Railroader*, May 2004.

P.S. The layout was dismantled shortly after the TSG video was completed.

Jim Dias

HO

[Western Pacific 1938](#)

[LDSIG Tour](#)

Oroville (staging) to Portola in the spring of 1938 in a 20x20 foot room. Fully scenicked, the quality of the scenery has been praised by former WP employees for its accuracy. Beautiful rendition of Keddie Wye is a scenic highlight, scenic logging railroad on the upper, unconnected deck. Walk around design features operations scheme adapted from WP timetable supporting casual but purposeful operations in a low-key atmosphere.

Two longer switching jobs plus footboard yardmaster job and shorter locals, through freights and passenger train. One of the more-involved switching jobs is on the upper deck, requires step stool for operation.

System One/NCE DCC control (many locos are sound-equipped), pre-prepared switchlists, sequence timetable, verbal communications, no formal Dispatcher role, written instructional handouts for each job includes layout schematic.

Dick & Niles

HO

[Southern Pacific Donner Pass Route](#)

This layout models the Southern Pacific Overland Route across Donner Pass from Roseville to Sparks in the 1948 timeframe. The layout includes the towns of Roseville, Colfax, Blue Canyon, Emigrant Gap, Norden, Truckee, Boca, and Sparks. There is a 600' dual mainline going over Donner Pass with a 1.5% ruling grade taking the trains from a 50" elevation to a 78" elevation. Auto staging is achieved by sharing double-ended hidden yards in Oakland and Ogden. Being a true mountain RR, there are no helixes or shelving. The layout is 34' x 45' with a "walk under" bridge entering the Roseville/Sparks Main Yard area and an elevated walkway around the back of the room to accommodate operations. Tunnels consume 27% of the mainline and there are 30 bridges on the layout.

The layout is controlled by a computer station running Railroad and Co. TrainController software. Connected to the computer are 12 touch screens that display/control the signals, turnouts, and block occupancy. The computer tracks engine numbers on the touch screen block icons as engines move around the layout. CTC signal aspects are automatically generated based on turnout states and block occupancy. Connected to the computer is an NCE DCC system that provides track power. Cellphone throttles control the engines using a router connected to the computer.

Scheduled train operations follow a 1948 SP timetable using a 6X fast clock. Unscheduled way freights use car cards to manage their operation. Turnouts/routes are controlled by the Mountain Dispatcher and the Yardmaster. Operators maintain radio communication with the Dispatcher and Yardmaster. Operations consist of both EB and WB train movements with helpers cut in for Fruit Block trains from Colfax to Norden. Scheduling accommodates First Class trains passing slow freight trains as they navigate up the mountain.

The layout has been under construction for 20 years, with almost all the scenery completed in just the last year. In 2008, Dave Frary, Bob Hayden, and Scott Mason spent a week constructing the scenery in the Truckee area that taught us the basics to complete the scenery a decade later. The main scenery features of the layout are the massive 18-track wide mainyard surrounded by the Sierra Mountains, Donner Peak with snow sheds and the China Wall, and over 120' of actual Sierra Mountain photograph backdrops surrounding the layout.

Richard Eberli**HO**[Edgewood Pacific Railroad](#)

Enjoy this exciting tour of Richard's layout in a purpose-built 640-square foot hobbyist train building! Designed for private operating sessions with friends, this modern-day HO-scale model railroad features 30 scale miles of track ascending a 3-level layout with a double-track mainline, 2 helixes, intricately detailed buildings and miniatures, plus gorgeous painted scenery throughout richly-imagined locales.

Take a walkthrough tour of the layout as Richard provides stirring commentary, followed by a compelling music montage of the trains in operation! While still a work-in-progress, this layout is already packed with thrilling sights to be seen and a few fun surprises for fans of model trains!

Video by Richard & John Eberli.

Join Layout Panel Discussion Thursday 7:00 p.m.

Rick Fortin**HO****Valley Division, Fourth District (ATSF)**[Valley to Mountains Ride](#)•[Mountains to Valley Ride](#)[LDSIG Tour](#)

Proto-freelanced extension of the Santa Fe in the early 1970s north from the San Francisco Bay Area to Portland, OR. The modeled portion runs from the Central Valley town of Chico to McCloud, just south of Mount. Shasta in a purpose-built 25' x 47' room. The layout is a double-deck point-to-point, with 410 feet of mainline trackage, 50% scenicked, and the mainline 90% complete. Operations include a dispatcher, an interlocking tower, a large yard with two switch crews and a hostler, a small yard with a full-time switcher, heavy-duty mainline freight action with some passenger, local switching, and a branchline. All permanent track is all hand-laid. Operations are purposeful, in a relatively disciplined but casual atmosphere.

Train control is by NCE DCC with wireless throttles, FRS radios, and intercom, Track Warrants, real-time, sequence operations, car cards and waybills. Operators will appreciate fascia-mounted track diagrams, station names, mileposts, clipboards with train instructions, and track diagrams.

Signals are currently being installed for future CTC dispatching. Several of the sidings and junctions now have operational US&S R2 signals that are temporarily providing turnout position indication until Rick's ex-Santa Fe CTC machine is put into service. A dispatcher's office has been constructed adjacent to, but completely isolated from the layout room.

Website: www.lwmweb.com/sw&sf/

Join Layout Panel Discussion Thursday 7:00 p.m.

Free-mo**HO**[Free Form Modular Layout](#)

This iteration of the Free-mo HO Scale layout was assembled for the 2019 NMRA National Train Show that took place in Salt Lake City, Utah in July of 2019. TSG was invited by Chris Palomarez to see the Free-mo layout and while we were at it, we decided to do a layout tour as well!

Join us for a look at how the Free-mo folks handle the challenge of setting up at train shows with different modules in different spaces every time.

Free-mo was envisioned and started by Chris Palomarez at the [San Luis Obispo Model Railroad Club](#) (now SLOMRA). In about 1994 Chris looked at the club NMRA modules and said, "Why are we running in a circle? The prototype does not go in a circle, it goes point-to-point." Based off the FREMO concept that was being used in Europe, he and Art Armstrong sat down and wrote out the first standards for Free-mo.

In October of 1995 SLOMRC had a setup in Paso Robles that used a point-to-loop setup combining the new Free-mo Modules with old NMRA modules. This was the first public Free-mo setup. For more information on Free-mo, see their website: www.free-mo.org

Ed Gregory [Bull Horn Flats](#)

N

The Bull Horn Flats is a fictitious caboose-era proto-freelance layout with 8 switching areas, all with run-around tracks, as well as 14 passing sidings, 2 yards, 2 reversing loops, and 2 interchange tracks, with mostly freight and a passenger local. Turnouts are all hand thrown, simulating brakemen getting off and on locomotives to do work. Operations uses car cards and switch lists. The layout shows what could have been if the Santa Fe had gone south from Richmond to Fremont, California, and then east to nearby Altamont Pass. Control is by Digitrax DCC.

Steve Hayes [Western Pacific 1967](#)

HO

[LDSIG Tour](#)

One of the larger private layouts we've toured, this massive HO Scale DCC-equipped model railroad layout is located in Twain Harte, CA. It's owned by Steve Hayes, who happens to also be the author of several books, including two about the Western Pacific.

The layout depicts the WP in 1965-69 from Oakland to Salt Lake City in an 1800 sq foot basement with 700 feet of single track mainline and 9 passing sidings. The layout is 70% scenicked with several prototype structures. This layout attempts to evoke a specific era and locations with some compromises to improve modeled operations. Operations are purposeful and include the California Zephyr and 20+ freight trains during a 4-hours operating session over a fully signaled mainline.

Website: steveswplayout.hayeswp.com/

Kevin and Curtis Hill [San Benito Southern Railroad](#)

G/Fn3

The San Benito Southern is located in Hollister and was built by Kevin and Curtis Hill. While the garden railroad is a centerpiece of the yard, so is some of the railroadiana in the yard. Not just historic relics, but in some cases, historic relics with very personal connections!

It's not just about locomotives and trains; combine a very nicely manicured garden layout with great equipment and lots of Disney historical elements and you get the San Benito Southern.

Dave Houston [Southern Pacific Rocklin Sub](#)

HO

[LDSIG Tour](#)

Most of us know Daylight Dave from the train shows. He had the booth with all the jackets, hats, shirts, and other railroad branded items. Did you know Dave is also a model railroader?

Join us for a look at Dave's Southern Pacific Rocklin Sub HO Scale layout, a freelanced version of the SP Donner and Shasta crossings, as well as the Coast Line and Burbank Branch in the 60s.

A walk-in basement in California is not very common, but this one was available (house included) and a dream has become a reality. At 11x55 feet in size, a completed (yes, you read that right!) double-deck freelance prototype layout. Emphasis is on operations with car cards, track warrants, long trains, and two-person crews. Digitrax DCC and sound in nearly every locomotive make the scene complete.

Join Layout Panel Discussion Saturday 7:00 p.m.

Bill Kaufman [State Belt Railroad](#)

HO

[LDSIG Tour](#)

The State Belt ran for a hundred years along the piers and into the warehouses of the San Francisco waterfront. Bill has taken important elements like the car float, the interchange at King St. (where the sometime World Champion San Francisco Giants play baseball today), the street running, and the switching areas under Telegraph Hill and built them into a 12' by 12' layout using some interesting modular techniques.

The operations themselves follow the pattern of the actual State Belt, with two crews each working its own division. The railroad was and is controlled by switchlists. The prototype never handled waybills or any other official documents. Each of the connecting railroads sent a switchlist with its cars and the railroad charged them for each movement, irrespective of contents or distance. We use a "Chief Clerk" who, using a standard car card and waybill system, simulates the ATSF, SP, WP and Northwestern Pacific railroads car forwarding system and writes the switchlists. The "staging" on the layout consists of three carfloats and three cassettes that attach temporarily to the end of various streets.

The railroad itself is built and totally functional. Basic buildings and scenery are in place. About 125 cars are switched each session with a motive power department of two sound equipped 0-6-0s and four Alco S-2s with LokSound chips. The locomotive control system is Lenz with CVP wireless throttles. All switches are hand thrown because that was the way it was on the State Belt.

The April 2007 issue of *Model Railroad Craftsman* magazine had an article on the layout and Bill has written a book, *The State Belt*, published by Signature Press, now in its second printing.

Website: www.statebelt.org

Join Layout Panel Discussion Saturday 7:00 p.m.

Mike Laine

HO

[Virginia & Truckee Railroad](#)

The 5' x 12' eye-level walk-in layout depicts the Virginia and Truckee Railroad's venerable line to the famous mining town of Virginia City, Nevada. Now reduced to a quiet western branch line, the layout depicts the declining mining district as it might have appeared in the mid-1930s. Virginia City, Gold Hill and the Crown Point trestle are featured highlights. The layout has many scratchbuilt and kitbashed historic structures and is finished with natural materials collected on-site in Nevada.

This layout is in an enclosed room constructed in a typical California garage. The layout was built as a demonstration project for the NMRA 2000 National Convention in San Jose. Control is DC with blocks.

Howard Lloyd

HO

[Claremont Docks Railroad](#)

[LDSIG Tour](#)

The Claremont Docks Railroad is Howard's rendition of a 1940s railroad terminal in the New York Harbor area. This is a stunning HO scale layout with a strong maritime element. The confluence of maritime and railroad modes of transportation are shown off in this one, and doing it in the broader context of the New York Harbor region in the 1940s really works.

This 12' x 17' freelanced switching layout was inspired by the Lehigh Valley's small "Black Tom" terminal, which jutted into New York Harbor from Jersey City, New Jersey. It is September 1944, and the terminal is busy with war material bound for the European theater.

[Continues on next page]

Most structures are scratch-built (ie: a large brick warehouse, a very long corrugated freight shed, a terminal grain elevator). Howard also likes to build boats, and so far there are 5 of them on the layout. The layout does operate, but he is more interested in building what he hopes is a realistic rail-marine diorama.

Benchwork is open grid and L-girder, at a height of 53"–56-¼". The mainline run is 39 feet, with a minimum radius of 18" and a maximum grade of 3%. Track is code 83 on Homasote roadbed. Scenery consists of "ground goop" and ground foam on plywood. The backdrop is painted tempered hardboard. Control is by wireless NCE DCC.

The track plan originally appeared in the July 2017 issue of *Model Railroader* magazine. His previous layout, the Arvern Bay Terminal, was twice featured in photo spreads in *Model Railroader* magazine.

Join Layout Panel Discussion Friday 7:00 p.m.

Ed Loizeaux **S** [New York Central Valley Division](#)

[LDSIG Tour](#)

Over 300 feet of double-tracked mainline with working DTC/ABS signaling in both directions, working semaphores, wireless control panels for the main yard, working turntable, computerized remote dispatching, a working 1950s-era telephone system and about 90 SwitchMaster-powered turnouts. Primary scenic features of this 20' x 30' layout include a 6' tall waterfall, a cut stone viaduct over 10' long, rain storm with flashing lightning and loud thunder, a large deck truss bridge, Mike Kotowski's professionally-painted backdrop, dozens and dozens of beautiful pine trees and billions of grains of ballast.

Control by wireless NCE DCC, CMR/I, JMRI, and DC.

This is NOT your father's American Flyer train set. It is genuine S scale model railroading. Visitors are encouraged to run a train while here. It's more fun per minute than watching TV!

Website: sscale.org/best-of-s/ed-loizeaux/

Otis McGee **HO** [Southern Pacific Shasta Route](#)

[LDSIG Tour](#)

This double-decked, mushroom-style layout is a model of SP's storied Shasta Division from Redding, CA to Klamath Falls, OR, located in a purpose-built 1,200 sq ft loft in the Oakland Hills overlooking San Francisco Bay. The Shasta Division is the last large layout designed by the late and legendary John Armstrong. Operations follow the prototype using a modified 1952 prototype timetable & train orders and CTC.

The layout is faithful to the prototype. Car forwarding is by "Thompson" waybills. Trackside maps document the switching areas, and train briefs are provided.

The original John Armstrong design was modified in significant respects, largely to achieve operational goals. For example, sidings and spurs were added or modified to add operational interest. Some trackage was eliminated to create more interesting, and lengthy runs between modeled towns.

Most significantly, the capacity of the designed hidden staging yards at Redding and Klamath Falls was increased from 4 to 7 tracks. Additional staging tracks were added at Weed and lengthened from 8' to nearly 20'. And, additional tracks were installed at the visible lower Dunsmuir yard.

The track is ME rail on CVP tie strips with hand-laid turnouts, with nearly 400 feet of mainline trackage. Train control is via wireless NCE DCC. The layout is fully signaled from Redding to Black Butte (the CTC section) and ABS signaling is now being installed, per the prototype, from Black Butte to Klamath Falls. Computer interface is accomplished using C/MRI hardware and JMRI software. The tone of the layout is casual but purposeful.

[Continues on next page]

The Shasta Division is 60% scenicked with painted backdrops from Redding to Dorris. Many key structures are in place or mocked up, giving the modeled scenes a sense of place. For example, the Dunsmuir engine facility and city structures are complete and in place.

The layout accommodates 13 operators, including a yard crew of 3, two dispatchers (one CTC and one TT & TO), two TO operators, and road crews.

The SP Shasta Division is featured in *Great Model Railroads 2011*. Website: www.spsshastaroute.org/

Ed Merrin

HO

Northwestern Pacific

LDSIG Tour

The goal of this layout is to capture the look and feel of the late 1950s Northwestern Pacific Railroad, a former subsidiary of the SP that ran north of San Francisco from Tiburon and Sausalito on the San Francisco Bay to the Humboldt Bay city of Eureka. The resulting 13x17 foot layout features two visible levels, with a third level below for staging. The levels are connected by two helixes. The lower level depicts scenes in Sonoma County, including the towns of Petaluma and Santa Rosa, and on the upper level are parts of Mendocino County, including the division point at Willits.

Like its 1958 prototype, motive power is dominated by EMD SD7s, with a few SD9s, mostly in the Black Widow paint scheme. Most engines have sound. Operationally, the most significant business of the railroad is bringing lumber down from the northern counties on second-class freights, (compass south but SP westward) with empties returning on eastward extras. There are also locals and passenger service. The Petaluma and Santa Rosa Railroad, once an independent electric line but now dieselized and an NWP-owned subsidiary, is also depicted, with separate trackage and live interchanges.

Faithful to the prototype, the railroad is dark and runs with timetable and train orders on a fast clock. A prototype 1958 NWP timetable was the model for the train movements. Train orders and clearance forms are pre-written for each session, although dispatchers have the option of writing their own orders for which blank forms and carbons are provided. Car routing uses the traditional car card/waybill system.

The railroad operates with Lenz DDC equipment supplemented by CVP radio throttles. A large hidden staging yard, fitted with stationary decoders, is controlled manually by operators or by the dispatcher using JMRI PanelPro with programmed routes.

Nearly the entire layout has at least basic scenery. There are both scratchbuilt and kitbashed trestles and bridges and a growing number of structures based on prototype facilities and scenes.

Video used with permission of [Model Railroad Operations](#).
Join Layout Panel Discussion Saturday 7:00 p.m.

Napa Valley Model Railroad

Historical Society

HO

Napa Valley Northern

The Napa Valley Northern was a fictional line that ran from Stockton, CA to Portland, OR. The modeled portion of the line was based on a former Southern Pacific branchline from Napa, CA to Ukiah, CA. A hidden staging yard represented both Stockton and Portland.

The theme was a double-track to single-track class I railroad, set in the 1940s to the present time. Except for themed operating sessions, members could run equipment from any era.

Unfortunately, as this is being typed (3/28/21), the layout is in the process of being dismantled after the Society lost its four-year legal battle with landlord Napa Valley Expo Board and has been evicted from their clubhouse. Another Fallen Flag! Website: nvmmc.org

Seth Neumann

HO

[Union Pacific Oakland Subdivision](#)

[LDSIG Tour](#)

The layout is set in the East Bay Area in 1999. The railroad represents the former Western Pacific 1st and San Jose Subdivisions, which had become the UP Niles, Oakland and Milpitas Subdivisions in the era modeled. The railroad is a secondary main and a branchline which supports an Auto plant (NUMMI) and a number of smaller industries.

The layout is built in a 450 sqft purpose built room. Construction is single level. Dispatching is by TCS (using CATS) which replicates a Digicon console. Signal control is by CMRInet, including cpNodes made by Seth's company [Model Railroad Control Systems](#). All signals are repeated as color lite signals on repeaters above the layout. There is a complete writeup of the layout in Volume 52 of the *Layout Design Journal*, publication of the [Layout Design SIG](#) and a cover story in *Railroad Model Craftsman* January 2018.

The layout is about 95% scenicked. A unique feature of the layout is that there is no yardmaster, only a Clerk. This is because the prototype Milpitas Yard has no permanent switcher. The Clerk is assisted by a working RFID reader which prints "track lists" of cars in order as a switch job pulls cuts over the reader. The RFID system appeared in *Model Railroader*, December 2014, page 46. The clerk is responsible for managing yard and the neighboring NUMMI complex by writing switchlists to instruct the crews where to place cars. All crews do their own work when passing through the yard.

A typical session runs about 5 hours and uses 8 operators. Jobs include: Dispatcher, Clerk, NUMMI Job (2 crew, 2 shifts), UP LRV54 Local, BNSF trackage rights local, and the Mission Bay local which includes a utility job called "The Critter Wrangler".

NCE DCC with wireless throttles, all mainline engines have sound decoders, FRS Radios, 2:1 fast clock, switchlists. Uncoupling 100% manual using pics.

Featured in July 2021 issue of *NMRA Magazine*.

Join Layout Panel Discussion Tuesday 8:00 p.m.

Chuck Oraftik

HO

[New York Central Railroad: Boston & Albany Division](#)

Welcome to Chuck Oraftik's basement. In this space, you can enjoy some great eastern United States transition-era model railroading. This layout has lush landscapes, pastoral countryside, amazing stone bridges, dense city scenes, and what's more, most of it is also lighted for night running!

On Chuck's layout it's always early summer, mid-twentieth century America. Thousands of Supertrees blanket his rendition of the Berkshire Hills of western Massachusetts and eastern New York. This portion of the NYC's Boston & Albany division is a busy two-track mainline running through the Twin Ledges near Summit, along the Westfield River and through the Stateline Tunnels. Stops currently include Pittsfield, Richmond and Stateline, MA, as well as Canaan and Chatham, NY. Interchanges include the New Haven and Rutland.

Code 83 and 70 flex track is used with a 29 inch minimum radius. For possible relocation, the layout is built in seven, large transportable modules. Structures are kitbashed or scratch built to match or approximate the prototypes. All locomotives are sound equipped, while several are weathered and some have smoke units. Control is by NCE DCC.

Construction started about 20 years ago, but significant progress only began about 5 years ago. Recently, the Chair of the Board of Trustees has authorized a 370 square foot expansion going on to Albany and the Selkirk yard. This phase 2 right-of-way extension will transform the current 110 foot loop into a 200 foot loop-to-loop configuration.

This is Chuck's first "real" layout, but you probably wouldn't think so, considering how well done it is. Featured in the May 2021 issue of [Railroad Model Craftsman](#).

Join Layout Panel Discussion Saturday 7:00 p.m.

Trevor Park**F**[Fern Creek & Western Railroad](#)

Trevor Park co-founded this DCC-equipped F Scale Narrow Gauge (Fn3) railroad in 2013 with Eric Child, and gives us a guided tour of the entire railroad. All video in this program was recorded in the Fall of 2015. If this doesn't inspire you to start your own garden railway or start your own modeling hobby, it's possible that nothing will!

The Fern Creek and Western Railroad (FC&W) is a freelance garden layout based on the narrow gauge railroads of Coastal California. The railroad is set just before the 1920s when railroads and logging were still in their heyday. The railroad rises about two feet in its progression from the lowest point on the line to the summit, crossing many bridges, passing through two tunnels and climbing steep grades.

Website: fcwgr.com

David Parks**HO**[Cumberland West](#)[LDSIG Tour](#)

David's Cumberland West models the Western Maryland and Baltimore & Ohio railroads in the vicinity of Cumberland, Maryland in 1953. The layout is a single layer in a 1200 sq. ft. room with Mole staging. The backdrop, scenery, and bridges are mostly complete. Coal is the local focus. Both railroads have a Dispatcher, Stage Manager, and Coal Manager. The Coal Manager works with the Dispatcher to regulate coal loads and empty hopper traffic. An operating session focuses on one railroad with the other sometimes offering moving scenery.

The B&O includes the junction of the Pittsburgh and Cumberland Divisions and part of the West End Sub. The B&O is double-track main with "Current of Traffic" rules using B&O 9-aspect Color Position Lights (CPL) signals. Five Tower Operators control interlocking sections. They use computer touchscreens to manipulate switches and signals with pseudo-Standard Signal graphics. The B&O has many named passenger trains and some passenger switching in Cumberland. B&O coal mines are off-line. Operations center on the Keyser coal switching yard and a small manifest yard.

The Western Maryland includes the junction in Cumberland, along with parts of the Thomas and Connellsville Subs. The WM is a single track with many on-line mines and uses timetable and train orders. Only a single passenger train is scheduled. Most station operator positions are unmanned and the train crews communicate with the dispatcher. WM local activity is dominated by local coal mines.

Both railroads are bridge lines with an abundance of through manifest traffic. Each railroad is operated independently of the other, except for interchanges and minor trackage rights.

NCE-DCC is used for train control while a separate Loconet controls signals and accessories. Stage routing is controlled via computer screens. Car forwarding uses car cards and waybills for manifest freights. Coal and empty hoppers use multi-car coal orders. Communications is via a 1950s era 14-station multi-line phone system. Variable speed fast clock.

Website: borail.net/DPCW/

Join Layout Panel Discussion Thursday 7:00 p.m.

Paul Patterson**HO**[The Californian](#)

The Californian was inspired by Paul living in the state of California for several decades. The layout covers over 400 sq feet, has over 60 switches, 1500 feet of track, and was built over a span of 70 combined years. Two layouts were integrated into one. The older layout has handlaid track and Tru-Scale switches.

[Continues on next page]

Featured are scenes from San Francisco, Los Gatos, Campbell, Yosemite, Disneyland, and the Sierra Nevada. There are over 50 structures, some made by 3D printing, but most of the structures are made of balsawood. The motive power roster includes over 50 steam and diesel locomotives, plus more than 400 pieces of rolling stock. This vintage layout still runs on DC and block control.

Video courtesy of Paul Patterson.

Peninsula N-Trak **N** [Modular Layout Tour](#)

Modular clubs like this commonly have exhibits at train shows because many of them do not have permanent places to setup and run on their layouts. As such, not all members are always available to display their modules at every show, so the exhibit varies from show to show. Join us as we take a look at Peninsula N-Trak's modular layout!

Website: peninsulantrak.blogspot.com

Jim Providenza **HO** [Santa Cruz Northern](#)

[LDSIG Tour](#)

The Santa Cruz Northern is a proto-freelance WP/ATSF subsidiary over the California Coast Range in '70-71. Double deck, walk around, point to point 270' single track mainline, 90% scenicked, in a two car garage. Operations closely adhere to prototype practices with through and local freights, a unit train, passenger operations, yard and interchange. Dispatcher works with two Agent/Operators, a Yardmaster, a Trainmaster and train crews in a fairly disciplined but enjoyable atmosphere, replicating the teamwork inherent in railroading.

NCE DCC with wireless throttles, Soundtraxx decoders, telephone, TT&TO, 4:1 fast clock, car card and waybill / switchlist. Fascia mounted track diagrams, station names and mile posts, handouts describing layout and operating positions, employee timetable.

May 1996 *Model Railroader*, November, December 2002, May 2010 and November 2011 *Railroad Model Craftsman*, December 1999 *Railmodel Journal*, *Great Model Railroad* video #35

Join Layout Panel Discussion Tuesday 8:00 p.m.

San Leandro Historical Railroad Society **HO**

[Southern Pacific Overland Route](#)

The San Leandro Historical Railway Society operates the historic 1898 Southern Pacific San Leandro Depot at Thrasher Park. Located in one room of the Depot is a railway museum and in the other room is the large HO scale display layout. This layout was designed by the legendary layout designer John Armstrong and was featured in the March 1998 *Model Railroader magazine* and depicts the Southern Pacific Railroad during the late steam to diesel transition era.

There are over 4,000 feet of track on 3 levels, dozens of switches, and miles of wiring that have been installed by SLHRS members. It takes about 45 minutes for a train to travel the entire length of the display at scale speed.

The HO scale display represents the Southern Pacific Overland Route from San Leandro, CA through a variety of cities along the way to Reno/Sparks, Nevada. This route can be followed today by taking Amtrak from Oakland to the station in Reno. Of special note, represented centrally in the display, is the icing platform in Roseville, CA that was used to supply the cars for the Pacific Fruit Express trains, the Alameda Mole, and the snowsheds of Donner Pass and Emigrant Gap.

Website: slhrs.org

[LDSIG Tour](#)

In the early 20th century, the farmers and ranchers of the North San Francisco Bay decided that they needed a way to get their product to market. They pooled their resources and built the Nicasio Southern Railroad from Nicasio, Marin County, to the port of Bayside on San Francisco Bay. Between underestimating the cost of construction and overestimating the traffic, the railroad failed. San Francisco financiers saw an opportunity, took over the railroad as the Nicasio Northern Railway, and extended it to Highland.

At this time (1924, approximately) the road is barely surviving. The Nicasio Northern is a short line, best characterized as a freelanced “rails-in-the-mud” San Francisco North Bay railroad. It operates both freight and passenger trains, including a ferry schedule to San Francisco.

[Continues on next page] Its route goes from Bayside to Highland in the north (railroad east). There is a branch from Skalville to Yawn which is the connection to the national rail network. Lots of switching activity in Bayside with the wharf, local industries, and the passenger yard. The railroad operates several freight and passenger trains each day.

The Nicasio Northern Railway weaves through the hills on muddy and slippery roadbed. Need I mention that this is earthquake country? Even if the right of way was once perfectly laid out with straight tangents and smooth grades and curves, it didn't stay that way. The little steam engines rock and roll as they lead their trains across the pike.

The Nicasio Northern is an HO-scale model railroad designed for TT&TO operation with switchlists. It runs only steam, with Soundtraxx sound in the locomotives and Digitrax DCC for control. We run a 4:1 fast clock. Trackwork is complete and operational. The scenery is about 30% complete. The layout has a peninsula in the center of the 12' x 21' space, while the rest of the track runs around the perimeter of the room. Bayside yards and the engine terminal are on the peninsula. It has 28" aisles. It is NOT handicapped accessible (stairs).

Video used with permission of [Model Railroad Operations](#).
Photos and information on the: [BayRails website](#).
Website: nnrwy.trxn.design.com

Silicon Valley Lines Club HO**[Silicon Valley Lines](#)**

Founded in 1979, Silicon Valley Lines (SVL) is a freelance HO Scale Model Railroad Club located in San Jose, California. Construction of the current layout began in late 2000 and is located in the basement of an industrial building near downtown San Jose. The railroad occupies a 23' x 72' space and is a multi-level design built using commercial steel C-channel as a benchwork system with over 600 feet of mainline. The upper level is a single-track division, while much of the lower level is double-tracked. The layout features two large operating yards, as well as ample hidden, yet accessible staging.

Basic scenery is about 50% completed with painted backdrops and some key structures in place. Scenery construction, tuning operations, and refining the electrical control systems of the layout are now the top priorities for the club.

Realistic operation has always been a key focus in the SVL club. Throughout construction, members have been operating monthly on the layout to ensure that the railroad is built to create an enjoyable experience for our members and guests. Generous aisles provide ample space to support up to 8 simultaneous train crews and we are capable of running more than 25 trains on a good night.

[Continues on next page]

Just like the former Southern Pacific, SVL utilizes Direct Traffic Control (DTC) to keep trains moving on the railroad. Crews use radios to obtain authority from a dispatcher, and engineers are given switch-lists that describe the work. Switch-lists for each session are generated using a new software system (Spar) developed by one of our members.

The club was an early adopter of command control, starting with the Keller Onboard system in the 1980s, and quickly transitioning to Digital Command Control in 1995. Layout control uses NCE DCC with support for both plug-in and wireless throttles, as well as WiFi-throttles using JMRI WiThrottle. Turnout control around the layout is done using touch screens. The dispatcher desk is integrated with that system as well and controls signals and turnouts remotely.

Website: siliconvalleylines.com

Join Layout Panel Discussion Tuesday 7:00 p.m.

Ernie Simard

HO

[Western Pacific](#)

[LDSIG Tour](#)

Operations on the Western Pacific in the desert and the mountains in the early 1950s are the focus of Ernie Simard's layout. Railroad operations center on the division point yard at Portola, with trains running west and then north on the WP's High Line, and east on the mainline across Nevada and Utah to the Rio Grande's Roper Yard in Salt Lake City.

Ernie built a CTC machine to replicate the WP style of train control; authority is conveyed to train crews by signal indication. Operations are purposeful; as with almost any model railroad, Ernie has made some compromises with the prototype to make it all fit. Fascia-mounted track diagrams, station names and a timetable (for the passenger trains) create a solid information base for boomer train crews to facilitate their work.

The layout combines single and double deck construction in a three-car garage. The control system is Digitrax DCC. Ernie uses a fast clock; car forwarding is handled by switchlists. The layout is about 95% scenicked, with painted backdrop, rock and tree-covered mountains, towns and industries, etc.

Video used with permission of [Model Railroad Operations](#).

South Bay Historical Railroad Society

[HO-scale layout](#) • [N-scale layout](#)

The SBHRS operates extensive HO and N-scale model displays, also known as "layouts", in the historic Santa Clara Depot (opened in 1863), across the street from Santa Clara University. Both layouts include extensive signaling. Like many model railroads, they are works in progress and are undergoing constant change.

Both layouts have many handcrafted scenes, such as a winery, dam, two helixes, row homes and a yacht harbor (N-scale) and meat packing, lumber mill, oil storage tanks, plus a replica of the San Jose Southern Pacific Depot, ca 1950 (HO-scale). Scenery is about 90% complete on both layouts. Handicapped access ramp on track side of depot. Control on both layouts is by Digitrax DCC.

Website: sbhrs.org

Dave Stanley

HO

[Morada Belt Railway](#)

[LDSIG Tour](#)

Featured in the January 2014 and November 2019 issues of *Railroad Model Craftsman*, the Morada Belt Railway is a free-lanced HO railroad based in the west during the 1950s. Used by the four major carriers of the day (SP-WP-ATSF-UP) to reroute traffic when their own lines are congested, the MB Ry also hosts a variety of trackage right carriers (usually two per session) so an occasional local freight from the Central California Traction Co. or, perhaps, the Milwaukee Road may make an appearance during an operating day.

Housed in a separate 20x28 building, the layout is constructed on both two and three levels, connected by three single-loop helixes (blended into the scenery) providing a grade not exceeding 2.5% with a minimum mainline radius of 30 inches. The railroad was designed as a point to loop railroad due to space limitations but is run as a point to point operation (Palisade/Stockton staging yard to Morada classification yard). A separate yard (Junction City) is used by trackage right carriers to interchange with the “big four”. A branch line, plus a quarry, cement plant, produce district, and lumber mill, all located on the main line, provide ample industry work for local freights dispatched from Morada Yard. The railroad is virtually completed with just a few structures to add.

Operating sessions require a train dispatcher (TWC-type train orders, transmitted by FRS radios), two yard engines at Morada Yard, one operator/switch engine at Junction City, and up to four mainline crews. Easy DCC is our operating system and sessions normally last all day. All mainline and yard turnouts are Tortoise-powered, while branch line switches are push-pull using Blue Point machines.

Join Layout Panel Discussion Tuesday 7:00 p.m.

Ted Stephens, MMR®

HO

[Ohio & Little Kanawha Railroad](#)

[LDSIG Tour](#)

The Ohio & Little Kanawha is eastern US transition railroading at its best! This layout is owned by Ted Stephens, who recently earned his MMR certification from the NMRA. This layout was built for operations, and contains a lot of important layout design concepts that make it perfect for operations.

With dozens of vignettes, highly detailed scenes, lots of finished and lighted structures, this is one of the most detailed layouts in the San Francisco Bay Area. Also, you won't want to miss the town that's on a huge stretch of hinged scenery! Join us for a look at the O&LK Railroad with Ted Stephens and Earl Girbovan.

Featured in February 2021 issue of *NMRA Magazine*.

Tom Swearingen

HO

[Cal Pacific](#)

The Cal Pacific is a point-to-point deck layout, running around the perimeter of a two-car detached garage. Operations are conducted by Time Table and a “Mother, may I?” dispatcher, with the addition of train orders coming in the future. Passenger and freight trains move between San Francisco (a bit of modeling license here) and Sacramento, as well as six local turns.

The layout models the cities of Oakland, Emeryville, Berkeley, Richmond, Pinole, Crockett, Martinez, and Sacramento. However, the addition of scenery is in the early stages. Eastbound trains originate from open staging in San Francisco and immediately enter Oakland yard. Then they travel the length of the layout to Ozol Yard and then to open staging in Sacramento. Westbound trains originate in Sacramento and immediately enter Ozol Yard before moving on to Oakland and San Francisco staging. Travel also includes a helix, which is open with some added scenery.

Passenger trains operate under the October 1967 Time Table. The emphasis of my operational layout has been on providing a fun and relaxed atmosphere for friends to run trains while giving me an excuse for building large models. Mistakes actually make the session a bit more fun.

Video used with permission of [Model Railroad Operations](#).

Tony Thompson

HO

[SP Santa Rosalia Branch](#)

[LDSIG Tour](#)

The layout is set in the Central Coast area of California in 1953, and represents a mythical branch line (see map). The branch is primarily a switching challenge and hosts numerous industries typical of the area and era.

The layout is Tee-shaped, with both legs of the Tee about 15 feet in length. The town of Shumala is the junction of the branch with SP’s main line of the Coast Route. An intermediate town on the branch is Ballard, and at the seaside the branch ends at Santa Rosalia (rose-uh-LEE-uh). Nearly all track is installed, most structures are in place, and about 80 percent of scenery is complete.

Locomotives are a mixture of steam and diesel, all with DCC and sound, and control is via NCE wireless throttles. Most turnouts on the layout are hand-thrown. There is no clock, and crews simply work to complete the switching needs of the area they are working.

Freight cars are a particular interest here, so most cars operating on the layout are models of specific cars and prototypes for the era. Special interest attaches to both refrigerator cars and tank cars, and usually there are a fair number of both car types in any particular session.

A prototype-inspired waybill system has been devised for the layout, which has been described as it evolved in *Railroad Model Craftsman*, in December 2009, *The Dispatcher’s Office* (the OpSIG magazine), in April 2010, October 2011, and October 2016, and in *Model Railroad Hobbyist* (May 2012). Considerable discussion of the development and use of these waybills has been written up in my blog, which can be found at: www.modelingthesp.blogspot.com.

Normal operating patterns employ two two-person crews to work on each side of the layout. The timetable contains maps of each town. A mainline local also operates, to pick up and set out the branch line’s cars at the junction.

Join Layout Panel Discussion Friday 7:00 p.m.

Tri-City Society of Model Engineers HO/N Southern Pacific/Western Pacific N Scale Layout

The Niles Passenger and Freight Depots, located in the Niles District of Fremont, California, are home to a railroad museum and two all-new model railroad layouts, which are currently under construction. The layouts are based in Niles and the surrounding communities of the Bay Area. Attention is being given to accuracy and detail in both the track plans and surrounding scenery. The modeling era is the mid-1970s, but all industries and towns are being represented as they were in their prime.

The HO scale layout features the Southern Pacific mainline from Niles to San Jose with the many industries in Niles, Newark, Union City, and other intermediate communities, as well as both Southern Pacific and Western Pacific lines through Niles Canyon to Pleasanton and Livermore. San Jose Cahill St. Station is featured as the model railroad's large passenger terminal. A section will also feature the BART line through Fremont.

The N scale layout features the SP and WP mainlines from Niles to Oakland with intermediate communities such as Decoto, Alvarado, and Hayward.

Website: www.nilesdepot.org/niles/modelrailroads.html

Ray Turner

Gn3

Mystic Mountain Railroad

The Mystic Mountain Railroad is a backcountry short line, loosely set in the early 1900s, consisting of 1200' of code 250 nickel silver track. The railroad can be run as a single large loop or two smaller loops, with several passing sidings. There are two small yards, 22 spurs, two wyes for turning trains, and many tunnels and bridges. The Mountain Division runs over rugged mountains and deep canyons, necessitating many steel bridges, tunnels, and a large helix.

A scratch-built turntable/roundhouse facility is located at the North End yard in the Mountain Division. Trains can also be run point-to-point between the two yards for realistic operating sessions. Trains are battery-powered radio-controlled using Revolution and Train Engineer with SoundTraxx sound systems.

The most recent additions are the 5½' long Global Wizard Mfg. (G-Wiz), the sawmill complex, the Acme manufacturing plant ("Everything for the wily coyote"), and the wharf and Mercury Cannery Co. at North End. The scratch-built 4M Mining Company ("One better than 3M") is cast concrete and weighs 120 lbs. One unique feature is the use of concrete rock wall castings painted with acrylics.

A panoramic view of Silicon Valley serves as a natural "backdrop" to the railroad. Another unique feature is a 4-way pointless/frogless turnout for access to train storage. A separate whimsical fairy garden with its own Fairy Train will also be on display. Both railroads are lit for night time operation.

Website: www.mysticmountainarts.com/MMRR/

James B. Vail, MMR®, a Memorial HOn3 [Glenwood & Black Creek Railroad](#)

Though the Glenwood & Black Creek Narrow Gauge Railroad is a fallen flag, it is not forgotten. Jim Vail used his railroad as the basis for most of the 174 articles published in the *Narrow Gauge and Short Line Gazette* magazine, as well as articles he authored for other model railroad publications. Those articles covered the construction and continuous expansion of the HOn3 empire in his basement.

The railroad started as a series of self-contained modules which were later integrated into the design of a new railroad for a basement in a new home. Jim was a prolific builder and the original design included hooks for expansion, all of which were eventually used, and then Jim devised other ways to keep the expansion going. This included removing a bathroom and filling that space with three different scenes that tied back into the railroad in different locations. This same creativity resulted in double-deck staging yards in an area of the basement that was never to be used for the model railroad.

Jim said he drew inspiration from John Allen's game changing HO Gorre & Daphetid Railroad, and was privileged to visit John and his railroad on several occasions. John's influence on Jim is evident to anyone who had the pleasure of visiting Jim's railroad. If John Allen is known as the "Wizard of Monterey", then Jim Vail is certainly the "Sorcerer of Santa Cruz."

Jim loved building scenery, structures, rolling stock, automobiles, and machinery to create detailed scenes that would draw you in so you thought you saw everything, only to discover on the next visit you had missed half of it. The crew that was tasked with removing this marvelous railroad were amazed at how many things they collectively had not seen over the years.

Control systems went from tethered DC with fixed cabs, to radio control throttles made from model aircraft RC controls, to commercial model railroad IR controls, to a combination of IR and radio controls tied to DC sound systems, and finally DCC when small sound steam decoders arrived on the market. A billboard on the layout advertised the G&BC to citizens of the layout and it included the tagline "Big Then and Bigger Now" which certainly was true.

Enjoy the [TSG Multimedia video](#) made before the Glenwood & Black Creek was dismantled and attend the live panel discussion to learn more about this iconic HOn3 railroad and its builder.

Join Layout Panel Discussion Wednesday 7:00 p.m.

Paul Weiss **HO** [Central Vermont Railway](#)

[LDSIG Tour](#)

The CVRR in Northern CA project began when a building for this purpose was acquired in 2016. The vintage building was originally a kerosene dealer served by the Northwestern Pacific Railroad and (while its spur is gone) it sits alongside the right of way which now also hosts SMART commuter rail service. The building is slightly more than 30x40 feet and is entirely dedicated to building an operations-based model railroad using the Central Vermont Southern Division as a prototype, circa 1956. To take advantage of the building's interior ceiling height of more than 12 feet, we designed a double deck layout and raised the layout and operator aisles by approximately 3 feet. The result is that the benchwork is normal height for operators standing in the elevated aisle but 6 feet above the floor of the building, allowing us to put full height access aisles and comfortable agent offices under the layout itself. The around the wall helix scheme allows approximately 650 feet of mainline. Our biggest yard in East New London, CT, is approximately 80 feet total length.

[Continues on next page]

We greatly emphasized design features to maximize operator comfort such as no bottlenecks in the aisles and no duckunders anywhere. Visitors enter under the full height mainline span and the step comfortably up to the operating aisles.

The CVRR Southern Division ran from New London, CT, a busy port city, northward to rural Connecticut and then across the state line in to Massachusetts. The prototype continued on to Vermont and connected to parent company Canadian National at the international border. We have included most of the important towns along the line in Connecticut and on into Massachusetts; our last major town is Palmer, MA, where the line interchanges with the Boston and Albany main line between New York and Boston. The railroad is operationally interesting as there is a great deal of local switching and some hot trains, including daily newsprint trains from Canada for newspapers in the Northeast.

We chose to model 1956 as steam was still alive on the CV at that time. Also, the area has compelling scenic beauty as it gets more rural heading northward, but also will boast the dynamic port and urban scenes at the southern end.

We are building toward being able to enjoy large TT&TO operating sessions staffed by 12-15 operators and staffers. We are emphasizing very high reliability and craftsmanship.

Featured: *NMRA Magazine*, January 2021

Website: www.cvrailroad.com

Join Layout Panel Discussion Tuesday 8:00 p.m.

Nick Wright

F/Fn3

[Wright Railway](#)

In this layout tour, Nick Wright shows us his garden railroad, talks about its history, tells us about his modeling inspiration for what he does, and demonstrates that it's easy to have fun even if your layout isn't the biggest or most complex! He also shows how he laid his trackwork to minimize settling and how he ensures electrical reliability in the challenging outdoor environment. Join us for a look at the Wright Railway!

John Zach

HO

[Sierra Railroad](#)

[LDSIG Tour](#)

This HO scale model railroad is based on the Sierra Railroad that started its long and glorious history in 1897 and is still in operation today. The time frame for the layout is the Spring of 1955 when the first diesel locomotives (Baldwin S-12s) arrive on the railroad and the logging railroads of the Pickering and West Side Lumber Company were still going strong.

The layout is situated in a 1,500 square foot basement and from the SP Depot in Oakdale to the Sierra Depot in Tuolumne the Sierra mainline is 10.5 scale miles long. The trains are controlled by CVP's EasyDCC with 8 tethered throttles and 8 radio throttles. The majority of the track is Walther's Code 83 track and turnouts with Code 70 track used on the logging lines. Except for about 9 Tortoise Switch Machines, all turnouts are Caboose Industries ground throws.

In addition to the logging railroads, the Hetch Hetchy Railroad is represented at Hetch Hetchy Jct with its wye and its mainline heading off to Groveland and a staging track. Running through Oakdale is the SP Eastside Branch running from Stockton south through Oakdale to Merced. Stockton and Merced are the major staging yards of the layout that feeds cars to the Sierra and receives cars from the Sierra. Also running into Oakdale is the AT&SF branch from Riverbank, which also feeds cars to the Sierra and receives cars from the Sierra.

Website: www.sierrarailroad55.com

Join Layout Panel Discussion Tuesday 8:00 p.m.



LDSIG website: <http://www.ldsigt.org/>
 LDSIG Zoom access: <https://us02web.zoom.us/j/87912971799?pwd=c3dUaDZDOGNSc0JtMVVwTHlkc3NhUT09>

Former LDSIG President Seth Neumann has developed this program for your participation, education and enjoyment.

Meet and Greet.

Monday 5:00 p.m. - 7:00 p.m. LD Zoom

Open to all, especially SIG members. All SIG program participants (you don't need to belong to Layout Design or Operations SIGs to attend) are invited to briefly introduce themselves and their interests. A layout plan may be shared.

Open discussion

Daily 12:00 noon - 2:00 p.m. LD Zoom
 Daily 5:00 p.m. - 7:00 p.m. LD Zoom

Hang out and eat with SIG members, share your impressions of the Convention, and discuss your layout designs and operational plans

Layout Design Consulting

Daily by appointment LD Zoom

Ongoing, 45 minute slots for a consultation with LDSIG members See sign up form at <https://www.signupgenius.com/go/9040B44AFA722A7F58-layout>

Make Only New Mistakes.

Tuesday 10:00 a.m. - 12:00 noon Zephyr

An intensive 2-hour session on track planning sponsored by the Layout Design SIG. Discover how to refine vision, concept and purpose; select layout footprints and schematics; draw accurate and useful plans; create efficient and engaging yards and industrial areas; make best use of staging tracks; maintain space for people; and avoid common track planning errors. Presented by Byron Henderson.

SIG Dinner

Thursday 5:00 p.m. - 7:00 p.m. LD Zoom

"SIG Dinner" join other SIG members for a virtual dinner. Otis McGee will speak about "Realizing a John Armstrong Track Plan for SP Shasta Division"

What Would You Do Differently?

Thursday 7:00 p.m. - 9:00 p.m. Daylight

Panel of Hosts from the Wednesday Layout Design SIG Tour discussing lessons learned and the evolution of their thinking. Featured Owners include: Jack Burgess, Guy Cantwell, Howard Lloyd, Ed Merrin, and Paul Weiss.

"Check here for the latest on the LDSIG Program"
<https://www.ldsigt.org/santa-clara-2021-rbtb>

LDSIG Layout Tour

Daily any time

Links to videos under layout name.

Owner	Layout
	Link to Video
Adams, Dave	D&RGW Durlin Branch
Bowdidge, Robert	SP Vasona Branch
Burgess, MMR®, Jack	Yosemite Valley Railroad
Cantwell, Guy	Willoughby Line
Dias, Jim	Western Pacific, 1938
Fortin, Rick	Valley Division, Fourth District (ATSF)
Hayes, Steve	Western Pacific , 1967
Houston, Dave	Southern Pacific Rocklin Sub
Kaufman, Bill	State Belt Railroad
Lloyd, Howard	Claremont Docks Railroad
Loizeaux, Ed	New York Central Valley Division
McGee, Otis	Southern Pacific Shasta Route
Merrin, Ed	Northwestern Pacific
Neumann, Seth	Union Pacific Oakland Sub
Parks, David	Cumberland West
Providenza, Jim	Santa Cruz Northern
Schmidt, Jon	Nicasio Northern Railroad
Simard, Ernie	Western Pacific
Stanley, Dave	Morada Belt Railway
Stephens, MMR®, Ted	Ohio & Little Kanawha Railroad
Thompson, Tony	Southern Pacific Santa Rosalia Branch
Weiss, Paul	Central Vermont Railway
Zach, John	Sierra Railroad



Virtual Prototype Tours

[*Niles Canyon Railway*](#)

Niles Canyon Railway – A railroad museum where the exhibits come to life! The Pacific Locomotive Association, Inc., a 501 (c)(3) nonprofit organization, operates Niles Canyon Railway as a living history museum interpreting the importance of our heritage railroads in the development of California and the nation. The purpose of the organization is to preserve the physical aspects and atmosphere of Pacific Coast railroading during the period from 1910 to 1960. Our mission is to develop and operate a working railroad museum for the benefit of the general public.

Website: ncry.org

[*Roaring Camp & Big Trees Narrow Gauge Railroad*](#)

Roaring Camp – Where history come to life! Travel over trestles, through towering redwood groves and up a winding narrow-gauge grade to the summit of Bear Mountain as conductors narrate the history of Roaring Camp, the railroad and the forest. In the 1880s, narrow-gauge steam locomotives were used to haul giant redwood logs out of the mountains. Roaring Camp's steam engines date from 1890 and are among the oldest and most authentically preserved narrow-gauge steam engines providing regularly scheduled passenger service in America.

Website: roaringcamp.com

[*Sturgeon's Mill*](#)

The technology of Sturgeon's Mill dates to about 1865-70, only about 80 years after the start of the industrial revolution. In the early days, logs were pulled out of the woods with mules, oxen and horses, then hauled to mills such as this one. The development of the steam powered donkey engine in 1883 began replacing oxen and greatly increased the production of lumber.

This mill ran with a crew of 10 and could cut 15,000 feet of lumber per day. Eventually the mill's technology could not compete. The big circle saws cut a 1/3 inch kerf which lost a lot of lumber to sawdust. The newer technology of band sawing (as early as 1914) was faster and cut a much thinner kerf. The mill closed down in 1964 and Jim Henningsen passed his interest in the mill to his son Harvey. Ralph Sturgeon passed his interest to his son Bob Sturgeon and daughter Essie Doty.

In 1992 a group of seven former mill workers and historians formed the core of the Sturgeon's Mill Restoration Project each throwing in a \$100 bill and a pledge to save this steam powered sawmill. The group found traction and more volunteers joined the restoration effort.

Today the working museum's volunteer crew has grown from the original 7 to over 60 dedicated historians, craftsmen and women who not only operate the equipment and explain the histories of the mill and its machines, but work at restoring the equipment and the mill itself on the first Saturday of every month.

Watch the video to see a fantastic site and sight. It is probably one of the only steam lumber mills in the world still operating.

Website: sturgeonsmill.com

Another Video:

[Working Historical Steam Powered Lumber Mill](#)

[Bitter Creek Western Railroad](#)

The Bitter Creek Western Railroad (BCWRR) is a privately owned 7.5-inch gauge railroad operated for the benefit of children of all ages who enjoy playing trains. The Bitter Creek Western Railroad is located on the Nipomo Mesa just outside Arroyo Grande, CA about halfway between Los Angeles and San Francisco along Highway 101.

The railroad includes 1.2 miles (9.6 scale miles) of mainline with many sidings and two rail yards. The facilities include fourteen steaming bays, hydraulic lift and turntable. A 14x80 foot car barn, 3 bridges, 3 trestles, and 3 tunnels can be found along the way. Most mainline switches are motorized with spring points. There are six water sources amongst the trees, shrubs and flowers.

Website: bcwrr.org

Prototype Railroads in Northern California

Altamont Corridor Express
Amtrak California
Bay Area Rapid Transit
Burlington Northern Santa Fe Railway
California Northern Railroad
California Western Railroad
Caltrain
Central California Traction Company
Niles Canyon Railway
Northwestern Pacific Railroad Company
Oakland Terminal Railway
Quincy Railroad
Sacramento Southern Railroad
San Joaquin Valley Railroad
Sierra Northern Railway
Sierra Railroad Company
Stockton Terminal & Eastern Railroad
Union Pacific Railroad
Yosemite Mountain Sugar Pine Railroad





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<http://www.modelrailroadcontrolsystems.com/>

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- **DCC Flagmen**
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- **cpOD occupancy detectors**
- **Optical Detectors**
- **Intelligent Turnout Controllers with local control**
- **3 Position Dual Semaphore Servo Controllers**
- **Arduino-based CMRI Nodes (cpNode)**
- **Telephone Systems for Dispatching**
- **Geoff Bunza project boards**
- **WiFi Fast Clocks**
- **RFID Systems for car forwarding**

<http://www.modelrailroadcontrolsystems.com/>

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mini prints

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Clinics By Title

Clinic description and schedule is with the alphabetical list of clinicians.

[Persing, Ray](#)

[Kooning, MMR®, Clark Gust, Steve “Breezy”](#)

[Walden, Jesse](#)

[Neumann, Seth](#)

[Hall, MMR®, Edwin Pethoud, Robert](#)

[Cantwell, Guy](#)

[Deis, Paul](#)

[Markovich, MMR®, Frank](#)

[Stafford, Robert](#)

[Stafford, Robert](#)

[Hobbs, Paul](#)

[Linton, Clifton](#)

[Kooning, MMR®, Clark](#)

[Frankrone, Bob](#)

[Steinmetz, Pete](#)

[Hall, MMR®, Edwin](#)

[Hall, MMR®, Edwin](#)

[Kaufman, Bill](#)

[Sekera, Roger](#)

[Morden, Bruce](#)

[Linton, Clifton](#)

[Weinheimer, MMR®, Bob](#)

[Cantwell, Guy](#)

[Hobbs, Paul](#)

[Merrin, Ed](#)

[Weinheimer, MMR®, Bob](#)

[Frankrone, Bob](#)

[Juett, MMR®, Mark](#)

[Winn, Don](#)

[Osborne, Mike](#)

[Morden, Bruce](#)

[Nathanson, Irwin](#)

[Frankrone, Bob](#)

[McGhee, Scott](#)

[Getz, Charlie](#)

3D Printing for Model
Railroading

40 Minutes with Clark

A Day in the Life of a Train
Dispatcher

An Operating System for
Smaller Layouts

An Update on the Union Pacific
Oakland Sub

Basic Airbrushing

Basics of American Steam
Locomotives

Blurring the line: Freelancing
from the Prototype

Building a Layout, From Design
to Details

Building The Demonstration
Layout for the “Magic of Scale
Model Railroading”

Burlington Northern Unit Coal
Train Operations

Burlington Northern Unit Grain
Train Operations

Business Cars, Private Cars

Butane by rail - a prototype you
can model

Clark’s Tool Ideas Clinic: Part
1 / Part 2 (combined)

Creating Operations on the
Louisville Southern Lines

Dead Rail Systems in Smaller
Scales

Detailing and Painting a
Southern Pacific 1941 Lark

Detailing and Painting a
Southern Pacific Cab-Ahead

Developing Operations for your
Layout

Developing Your Operations
From Start to Timetable and
Train Order

Direct Traffic Control

Ethanol by rail -- a 21st century
prototype you can model

Evolution of an Operating
Scheme

Fast Forward – 15 Years of
Layout Construction in an Hour

Fifty Years of Amtrak

Focus Stacking and Low
Perspective Smartphone

Getting Started in Operations

How to add a scene to a layout in
15 easy steps

Installing Sound Decoders

Kitbashing - Think outside the
Walthers box!

LABRF: Los Angeles to
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Make it run like a Dream
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Clinics Handouts

Many clinicians have provided handouts for you to download.
 They are on the convention website at:

<http://www.pcrnmra.org/NMRA2021/clinics.html>

Clinics By Presenter

Burgess, MMR®, Jack

Photoshop® Elements as a Modeling Tool

Friday 11:00 a.m. - 12:00 noon Zephyr

The computer program Adobe® Photoshop® Elements can be just as useful in modeling as a Dremel® tool or NWSL Chopper. This clinic will share ideas of how to use the program to make scaled signs from graphics available on the web, scale prototype photos for building models, making your own decals and simple interior details, and enhancing scanned prototype and layout photos. Some techniques are extremely easy (“Why didn’t I think of that?”) while others are more complex.

A five-page handout is available at Jack’s website, www.yosemitevalleyrr.com/clinics.

Cantwell, Guy

Blurring the line: Freelancing from the Prototype

Wednesday 10:00 a.m. - 11:00 a.m. Daylight

Join Guy for a presentation on how to use prototype information to create a realistic freelance railroad. Topics covered will include: creating a group of prototype roads, selecting equipment and rolling stock, creating scenes inspired by prototype locations and practical tips for building models and scenes on your layout.

Fast Forward – 15 Years of layout Construction in an Hour

Saturday 9:00 a.m. - 10:00 a.m. Daylight

Join Guy for a photo presentation on the construction of his “Willoughby Line” layout. The clinic compresses fifteen years of construction into a short presentation. Watch as the layout grows from ground zero into a multi deck monster... He will show how he has approached some of the classic double deck construction issues such as: crossing the door, lighting the lower deck, helix, supporting the upper deck, staging, etc....

Check out Guy’s layout and modeling at: <http://thewilloughbyline.com/>

Scenery techniques – Modeling the Central Valley and the Western Sierras

Friday 2:00 p.m. - 3:00 p.m. Daylight

Join Guy for a presentation on scenery techniques to help you model the central valley of California and the Sierras. Topics include: grass techniques, trees (Oaks to Ponderosa pines), ground cover, bushes and rocks. Guy will walk you through the basics of the techniques and demonstrate how he applied them to build scenes on his Central Valley/Sierra themed layout.

Daumann, Al

Maximizing Small Layout Operations (Squeezing 10 Lbs of Ops into a 5 Lb Layout)

Thursday 11:00 a.m. - 12:00 noon Zephyr

Goal: Present several operational features designed to maximize operations on small layouts (and maybe larger ones too).

Decker, Bill

So You Want to Build a Dream Model Railroad?

Thursday 10:00 a.m. - 11:00 a.m. Daylight

Reflecting upon the past nine years of construction of Bill’s basement-filling SP Cascade Line, this clinic identifies design, construction and project management ideas that have led to success. While most individuals may choose different approaches, the intent is to provide thought about the individual modeler’s goals and to try to match those goals to one’s own work habits and hobby style.

Deis, Paul

Building a Layout, From Design to Details

Friday 9:00 a.m. - 10:00 a.m. Daylight

What is really involved in building a layout? I will use a section on my model railroad to show you the steps I used to build my layout. The methods described are just my way of modeling, your styles of modeling may vary. I model the Southern Pacific Coast Line from San Luis Obispo to San Miguel, California in 1949.

Tuning up your Rolling Stock

Saturday 10:00 a.m. - 11:00 a.m. Zephyr

Are you plagued by derailments? Do you have trouble with couplers? Does your rolling stock wobble down the track? What can you do? Come spend some time with me as we explore easy steps you can take to improve the reliability of your railroad. I will describe the methods I use and the tools I have found helpful.

Edholm, Phil

Printing Interiors for Your Models

Tuesday 2:00 p.m. - 3:00 p.m. Zephyr

Use PowerPoint, a drawing program masking as a slide program, to create complete printed interior walls for your structures. The clinic will go through the steps to create templates from your kit/model for the interior walls, designing the actual layout, finding suitable graphics on the internet, and printing and installing the completed walls.

Using 3D Printed Building Framing in an O Scale Model

Wednesday 11:00 a.m. - 12:00 noon Zephyr

This clinic covers using 3D printing to print the wooden wall framing of a building that is then covered with wood or other materials. The clinic covers designing the framing as well as how to print and join into larger wall sections. The clinic also covers how to paint the 3D printed parts to appear as wood with the attached wooden elements. Also covered will be using 3D printing for roof trusses and other structural elements. The clinic will show how 3D printed components can be combined with natural materials to create both more prototypical models, but also much stronger models. The clinic will cover the design mechanisms for the parts (Using [FreeCad](#)) as well as how to print the parts. How the parts are joined to create longer walls than the print bed will be covered. The painting techniques for the printed framing will be reviews. Finally, a complete framed printed roof will be reviewed and how to build it.

Erickson, Neil

The Oahu Railway Wahiawa Branch in On30

Tuesday 3:00 p.m. - 4:00 p.m. Zephyr

History and representation of the Oahu Railway & Land Company with focus on the Waipahu to Wahiawa Branch in On30.

Falkenburg, Dave and James Brassill

Silicon Valley Lines "Under the Layout" Tour

Friday 3:00 p.m. - 4:00 p.m. Zephyr

A technology-centric tour of the Silicon Valley Lines, a club in San Jose, California focused on operations and the adopting of technology to enhance our operation scheme.

Frankrone, Bob

Creating Operations on the Louisville Southern Lines

Wednesday 9:00 a.m. - 10:00 a.m. Daylight

If you think you can't operate your layout...think again. In this clinic, Bob discusses how he transformed his Louisville Southern Lines (LSL) layout into an operating layout long after it was designed and built. He presents a short history of the layout; describes the cities, towns and industries; and diagrams the LSL route map. Bob explains his requirements for model railroad operation, the constraints his layout poses, and the mechanics of an operating session on the LSL.

How to add a scene to a layout in 15 easy steps

Friday 3:00 p.m. - 4:00 p.m. Daylight

Unless you are one of the few model railroaders that have a finished railroad, there is a good chance you have some areas on your layout that are void of any scene or scenery (plywood prairies as they are sometimes called). My clinic will demonstrate how easy it can be to create a nice-looking scene on your railroad, regardless of ones skill level. Watch as I convert a three-square foot plywood prairie on my layout into a complete scene in 15 easy steps. A few simple tools, some readily available scenery materials, and various odds and ends like paint and glue are all I used to create my scene. Whether you are a beginner or a Master Model Railroader, I think you will enjoy seeing a complete scene come into existence.

Love Those Loads

Thursday 9:00 a.m. - 10:00 a.m. Daylight

Bob is the author of the "Love Those Loads" series featured monthly in the *NMRA Magazine*. This clinic features plenty of photos of both prototype and HO modeled loads. A real crowd pleaser, this clinic appeals to the beginner as well as the seasoned model railroader. Learn how to create interesting loads using commercially available products and kits. If you enjoy open loads, you will not want to miss Bob's clinic.

Fraser, Bryan

What is Model Railroading?

Wednesday 3:00 p.m. - 4:00 p.m. Daylight

A presenter led discussion exploring what it means to model in all aspects of model railroading including; design, building, scenery detail, and operations.

Fugate, Joe

Make it run like a Dream

Friday 4:00 p.m. - 5:00 p.m. Zephyr

Want your trains to run as good as (or better than) they look? Joe Fugate shares several decades of learnings and expert advice for getting and keeping your equipment and layout running as flawlessly as possible.

Painting in a post-Floquil world

Friday 10:00 a.m. - 11:00 a.m. Daylight

Stash of Floquil / PollyScale running out? Get weened off Floquil / PolyScale and map the familiar colors to other model paints. Also tips / tricks for airbrushing, brush painting, washes, and storing paints to last longer.

Siskiyou Line 2 clinic

Saturday 4:00 p.m. - 5:00 p.m. Zephyr

Joe Fugate reviews his first Siskiyou Line layout and covers the lessons he learned over the 25 years of building and operating that layout. Joe then discusses the dismantling of layout #1 and talks about the design and construction of the new layout that is now being built to take its place.

Getz, HLM, Charlie and Palermo, Chris***Magic of Model Railroading***

Friday 2:00 p.m. - 3:00 p.m. Zephyr

A tour through photos and diagrams of the new model railroad exhibit at the California State Railroad Museum. Much of the exhibit is from the NMRA collection.

Gross, Michael***My Life in Trains***

Friday 5:00 p.m. - 5:30 p.m. Daylight + Zephyr

Actor Michael Gross recounts his lifetime of passion for trains and modeling: growing up in Chicago near 10 railroads that sent 72 passenger trains a day past his home, the exuberent marketing of trains and lines from the postwar years into the 1960s, relocating from New York to LA by rail in the early 1980s, courting his wife Elsa with rail attractions, introducing entertainment colleagues to the hobby, acquiring an 18-mile branch of the AT&SF in New Mexico, personal promotional activities in the hobby, Free-Mo modular modeling of the AT&SF, and much more. The viewer will enjoy a 20-minute, good-humored, wide-ranging and vividly drawn portrait of Mr. Gross' lifetime passion for trains, railroading and modeling, presented by one of the hobby's most visible and articulate advocates.

Gust, Steve "Breezy"***A Day in the Life of a Train Dispatcher***

Wednesday 2:00 p.m. - 3:00 p.m. Daylight

Steve "Breezy" Gust, retired SP-UP train dispatcher, provides a historical account of what it was like to work as a train dispatcher and as a trainer for two large and successful Class 1 railroads.

Although Breezy dispatched trains using TT/TO early in his career, this presentation focuses on CTC and TWC systems that were in effect at the end of his career in 2009.

Hall, MMR®, Edwin***Basic Airbrushing***

Friday 8:00 p.m. - 8:30 p.m. Zephyr

History of the "brush", hints on how to purchase, taping with masking tape, what paint to use.

Detailing and Painting a Southern Pacific 1941 Lark

Saturday 8:00 p.m. - 9:00 p.m. Zephyr

Ed will discuss adding additional detailing to a Coach Yard brass SP 1941 Lark passenger car. He will also discuss the best paint and decals available to make a realistic passenger car.

Detailing and Painting a Southern Pacific Cab-Ahead

Friday 8:30 p.m. - 9:00 p.m. Zephyr

This clinic is beneficial to anyone painting a brass engine. Simple modifications added to the engine to enhance its look. Clinic informs attendee on how to strip down an engine and paint it. What to do about decals and masking the engine.

Harding, MMR®, Doug***Western Grocer – A look at a Mid-Century, Midwestern Grocery Distribution company.***

Wednesday 2:00 p.m. - 3:00 p.m. Zephyr

This was the largest Grocery distributor between Chicago and Denver in the 40s. Vintage photos, Sanborn maps, and historic data are featured. Models of structures and cars are presented and operations briefly covered. Grocery distributors were found across the country, making this clinic applicable for anyone.

Henderson, Byron

Make Only New Mistakes.

Tuesday 10:00 a.m. - 12:00 noon Zephyr

An intensive 2-hour session on track planning sponsored by the Layout Design SIG. Discover how to refine vision, concept and purpose; select layout footprints and schematics; draw accurate and useful plans; create efficient and engaging yards and industrial areas; make best use of staging tracks; maintain space for people; and avoid common track planning errors.

Hill, Michael

Simplifying Wiring on your panels with Arduinos, Neo-Pixels and Resistor chains.

Thursday 4:00 p.m. - 5:00 p.m. Zephyr

Learn how one creates a nice compact yard panel that has lights, power and turnout control without all the messy and hard to repair wiring. These have come across as we got annoyed at all the excess wiring and the need to make things easier to fault find. The panel concept will work nicely with your shelf layout all the way up to your multi cab railroading empire.

Hobbs, Paul

Business Cars, Private Cars

Tuesday 4:30 p.m. - 5:00 p.m. Zephyr

Railroad business cars have been in service from near the beginning of steam railroading, known to be on the roster of the Baltimore & Ohio Railroad in 1855, before the Civil War. In 1863 the United States Military Railroads built a 4-truck car for their CEO – President Lincoln. He felt it was too ornate and did not use it, but his body was carried home in 1865 aboard the car. Business cars were at their most numerous in the 1920s, about 900 cars, representing less than 1.5% of the passenger car fleet. The role of business cars has evolved, several among the fleets of present day railroads as exquisitely maintained sales tools and inspection vehicles. There were specialist cars for instruction, pay, display, religious evangelism and circus transportation. Private cars were the corporate jets of earlier times. Often configured similar to business cars, they were the transports of the rich and famous. Today's private cars are restored members of the heavyweight and streamlined fleets, many available for charter. Modeling these cars can be an interesting kitbash project, or a brass model purchase. We will explore all these elements and more.

Fifty Years of Amtrak

Tuesday 4:00 p.m. - 4:30 p.m. Zephyr

On May 1, 2021 Amtrak celebrated its 50th birthday. We will review the company's progress from start-up, including schedules, equipment changes, paint schemes.

Juett, MMR®, Mark

Using JMRI for Car Forwarding

Tuesday 3:00 p.m. - 4:00 p.m. Daylight

There are several methods to generate traffic on your railroad. Car cards are very popular, but cars are limited to four destinations. The old guys used colored thumbtacks but that detracted from the appearance of the car. There are several software programs but many of them are dependent on one person to maintain and update the software.

Come take a look at JMRI as a method for car forwarding. How to set up and configure. How to get the results you want. How car types and destinations are appropriate. See how movements are not a set pattern unless you desire to set it that way. See just how easy it is to get started and get freight and passengers moving on your railroad.

Juett, MMR®, Mark***Installing Sound Decoders***

Thursday 3:00 p.m. - 4:00 p.m. Daylight

Not every decoder installation is plug and play. Older locos can be upgraded for better performance. You can find a way to make the installation in most locomotives.

Learn some of the techniques that have been presented in the *NMRA Magazine* Pulse of DCC column over the past five years. Learn about decoder selection. How do we find space for everything? See how to measure the space to see what is available. Learn how to mill away portions of the weights or other components to make room. How do I upgrade an older loco's performance? Speaker selection is an important criteria for good performance. Learn about soldering, energy storage devices, LED lighting, special lighting effects and more.

Using Decoder Pro

Thursday 4:00 p.m. - 5:00 p.m. Daylight

JMRI DecoderPro is a great tool to set up and configure your decoder. Learn how to best use DecoderPro to your advantage. It has a great graphical user interface which makes it easy to use. Learn about special lighting effects, speed tables and speed matching, momentum, braking and more. Learn how to copy and duplicate files for similar locomotives. Learn about programming on the main and using a dedicated programming track. There is a lot to DecoderPro but come see how easy it is to get started and to use.

Setting Up for Operations

Tuesday 2:00 p.m. - 3:00 p.m. Daylight

If you are interested in model railroad operations, there are several things to consider even if your track is operational and the scenery complete.

How will you dispatch trains?

Where and how will you build a Dispatcher's Office?

Will you use radio, telephone, telegraph or another method to communicate?

What method will you use for car forwarding?

What paper forms will you need? Time Tables, Clearance Forms, Switch List, Bad Order Forms etc.

Will your operators be able to identify locations and industries on your railroad?

How will you call crews?

How will you find enough operators to fill crews?

Will you keep a seniority list?

What about other aids to keep things organized, how will you keep all of those forms organized?

What will you use for uncoupling tools?

Have you considered interchanges for cars to go beyond your basement?

How will you build them?

How will they operate?

What type of trains will you run; through freight, unit trains, mixed freight, passenger, local switching or all of these?

Come join us to discuss these subjects and more.

Kaufman, Bill

Developing Operations for your Layout

Saturday 2:00 p.m. - 3:00 p.m. Zephyr

The title says it all. You have a layout or are thinking about building one, how do you decide what operating scheme to use? This presentation runs from the most primitive Darlington RR (one set of tracks, one engine) through the modern complexity (many engines and GPS). TT&TO and track warrants are contrasted with real world examples.

Koester, Tony

Update on the Nickel Plate

Thursday 2:00 p.m. - 3:00 p.m. Daylight

Model Railroader Magazine "Trains of Thought" columnist and *Model Railroad Planning* editor Tony Koester will cover the highlights of his HO model of the Nickel Plate Railroad's St. Louis Division as it appeared and operated in the mid 1950s. The railroad is fully scenicked and operational.

Kooning, MMR®, Clark

40 Minutes with Clark

Wednesday 4:00 p.m. - 5:00 p.m. Daylight

In this clinic Clark will take you through some tips and tricks with a quick-paced PowerPoint® clinic. We will look at glues, electrical ideas, airbrush tips, introduction to spline subroadbed, and some general tips on building models.

Clark's Tool Ideas Clinic: Part 1 / Part 2 (combined)

Tuesday 4:00 p.m. - 5:00 pm. Daylight

Clark will give you a quick look at some tools that may be a great benefit to you as a modeler. Clark will look at a wide variety of tools that can be used in DCC layouts, some basic electrical tool ideas, and of course some neat tools for building great models. Join Clark in this fast-paced PowerPoint® fun clinic.

Linton, Clifton

Butane by rail - a prototype you can model

Friday 8:00 p.m. - 9:00 p.m. Daylight

Butane is still a commodity shipped in manifest quantities by rail. Here's the background on the commodity, why and how it moves by rail and how you could model it on your layout.

Ethanol by rail -- a 21st century prototype you can model

Tuesday 7:00 p.m. - 8:00 p.m. Daylight

A look at how railroads provide transport of raw materials and finished product of this key motor fuel additive that has been a vital commodity by rail this century.

Lull, Dave

Structures on an Extraordinary O Scale Traction Layout

Wednesday 9:00 a.m. - 10:00 a.m. Zephyr

A show of structures Dave built for an outstanding and highly detailed traction layout. Pictures include the owner's collection of interurban cars, streetcars, trolleybuses, and diesel buses. Dave owned DSL Shops (urethane structure kits).

Markovich, MMR®, Frank***Building The Demonstration Layout for the “Magic of Scale Model Railroading”***

Thursday 2:00 p.m. - 3:00 p.m. Zephyr

Frank will cover the building of the new exhibit at the [California State Railroad Museum](#) from the ground up, including, but not limited to Benchwork, Subroadbed, Trackwork, Electrical, Scenery, Structures, etc.

McGhee, Scott***Madera Sugar Pine***

Thursday 8:00 p.m. - 9:00 p.m. Zephyr

Madera Sugar Pine Railroad with some present-day Yosemite Mountain Sugar Pine Railroad photos at the end. It really brings Hank Johnston’s Thunder in the Mountains to life!

McNary, Kristine***ZIMO DCC***

Saturday 7:00 p.m. - 8:00 p.m. Daylight

Presented in conjunction with ZImo and some Zoom times for Q&A to provide a better understanding of DCC, as well as an introduction to the Zimo line of products, and some basic use, such as using the MXULFA along with Software wear tools.

Merrin, Ed***Focus Stacking and Low Perspective Smartphone Photography***

Saturday 3:00 p.m. - 4:00 p.m. Zephyr

The rationale and techniques for using the camera in your smartphone to create low-angle close-up photos of model railroad layouts or dioramas with realistic depth of field. He discusses advantages and disadvantages of the smartphone versus larger DSLR or mirrorless cameras and walks you through a shooting session. Essential to this process is mastering the blending of multiple individual images taken at different focal points. The mechanics of setting up these shots with the standard manual technique or more recent automated software approaches are covered. Postproduction issues, including choice of software and the use of cropping, and the types of artifacts that are encountered.

Morden, Bruce***Direct Traffic Control***

Wednesday 8:00 p.m. - 9:00 p.m. Zephyr

A look at how Direct Traffic Control (DTC) works. This system of traffic control replaced the Timetable and Train Order system on a small number of railroads in the United States and was also used in Australia.

Layout Without a Plan: Changes as You Go Along

Tuesday 8:00 p.m. - 9:00 p.m. Daylight

What happens if you build a layout and then want to make changes? Add signals, change track arrangements, add more lighting, add animation and more. The argument for building small and experimenting before you build your life layout.

Using Sanborn maps and aerial photos for layout design

Saturday 8:00 p.m. - 9:00 p.m. Daylight

Layout design based on research from Sanborn Insurance maps, aerial photos, railroad maps, and USGS topographic maps. Some examples that I used on my model railroad as well as some areas close to the convention will be presented. Sources for your own use and exploration will be provided. A great way to study the prototype for design and operation.

Nathanson, Irwin

Let's Visit the Diamond Point Railways

Wednesday 11:00 a.m. - 12:00 noon Daylight

Tour a layout inspired by the Miniatur Wunderland in Hamburg, Germany. Includes 3 railroads depicting Germany, UK and US.

Tour three separate but interconnected layouts inspired by Miniatur Wunderland in Hamburg, Germany. Depicting Germany (HO), United Kingdom (OO), and United States (HO). Layouts are walk-in, overall size of room is 25 x 18 feet. Layouts are fully scened with lots of animation, sound, smoke and lighting effects. Irwin will also demonstrate some very advanced European DCC-controlled locomotives and other rolling stock. The Diamond Point Railways were featured in the August, 2016 issue of *NMRA Magazine*.

Neumann, Seth

An Update on the Union Pacific Oakland Sub

Saturday 11:00 a.m. - 12:00 noon Zephyr

Evolution of my "Union Pacific Oakland Sub" layout. The layout has received national coverage and is featured on the Layout Design SIG Tour (and perhaps other tours). I'll describe the prototype, my design process, construction, operations and lessons learned.

Model Railroad Communications (Phones for Ops)

Saturday 4:00 p.m. - 5:00 p.m. Daylight

Seth will provide a brief history of prototype communications equipment, describe the types of equipment that you will need to build a phone system, provide a planning guide and describe circuits he has developed to simplify the installation of a phone system on your railroad.

Re-Animating a US&S type 506 CTC Console

Friday 4:00 p.m. - 5:00 p.m. Daylight

Rick Fortin secured a former ATSF CTC Console and has modified it to dispatch his freelanced Santa Fe Valley Division 4th Subdivision. This clinic details the design using CMRIInet and JMRI PanelPro as well as the physical restoration of the board.

What Would You Do Differently?

Thursday 7:00 p.m. - 9:00 p.m. Daylight

Panel of Hosts from the Wednesday Layout Design SIG Tour discussing lessons learned and the evolution of their thinking. Featured Owners include: Jack Burgess, Guy Cantwell, Howard Lloyd, Ed Merrin, Tony Thompson and Paul Weiss.

Osborne, Mike

LABRF: Los Angeles to Bakersfield

Saturday 2:00 p.m. - 3:00 p.m. Daylight

Mike will take you back in time to 1980 on a 172-mile night-time trip as a new brakeman aboard Southern Pacific's LABRF, from Los Angeles to Bakersfield Yard. Starting at Taylor Yard and LATC, you will journey across the San Fernando Valley, up Soledad Canyon, through the Mojave Desert, up and down the famous Tehachapi mountains to Bakersfield.

Palermo, Chris

Seasickness Unknown: The Pacific Coast Companies Create the Alaska Cruise Business

Saturday 3:00 p.m. - 4:00 p.m. Daylight

Pacific Coast Steamship Company invented the California-to-Alaska cruise business in the 1880s, and was unique in having connections to three railroads, two of which were narrow gauge. The 3' gauge Pacific Coast Railway in San Luis Obispo County, California provided an essential passenger, freight, and mail link for rural communities in the early 20th Century. Both companies held US mail contracts that helped maintain profitability. Bridging the hobbies of model railroading and postal history collecting (philately), this clinic will trace the history of these lines, highlighted by displays of original 19th and early 20th century artefacts and ephemera from the author's collection, including postal items carried on the lines, menus, advertising, and photographs. Modeling tips, including scratch building PCR RPOs in HO scale, will be reviewed.

Persing, Ray

3D Printing for Model Railroading

Friday 9:00 a.m. - 10:00 a.m. Zephyr

This clinic is an introduction to 3D printing for model railroading, a game-changing technology for our hobby. The clinic covers the entire process from creating (or downloading) a 3D object to creating the finished product and is intended for modelers who have no previous experience with 3D printing. This clinic will help you understand (1) what can you do with 3D printing; (2) what kinds of 3D printers are there and what types are best for our hobby; (3) the process to design and create 3D printed parts; (4) impact on AP Merit Awards.

Scratchbuilding in Wood

Tuesday 10:00 a.m. - 11:00 a.m. Daylight

In an era when craftsman kits are becoming increasingly expensive, scratch-building makes high-quality models possible on a budget. We'll cover techniques used in constructing wood models by stepping through the construction of a prize-winning structure. This clinic is for the modeler who is considering scratch-building but either hasn't started or has started with limited success. The clinic also covers methods used to build a Merit Award quality model, as well as some warnings of things not to do, and alternative methods to achieve similar effects.

Pethoud, Robert

Basics of American Steam Locomotives

Tuesday 11:00 a.m. - 12:00 noon. Daylight

American steam locomotives earned a reputation for being grotesque jumbles of pipes, rods, and mysterious devices. This clinic explains what many of these parts are, how they work, and how they developed over time. In particular, we'll explore in detail the functioning of Stephenson and Walschaert valve gear.

Pethoud, Robert

Operating the Fall Creek Branch

Thursday 9:00 a.m. - 10:00 a.m. Zephyr

The Fall Creek duplicates the operation of a way freight at the end of a branch line, with multiple set outs and pick ups required by each switch list. The clinic will cover basic switching maneuvers, prototype practices, and creating a sequence of switch lists. The Fall Creek Branch was featured in the March 2016 issue of *Model Railroader* magazine.

Redeker, Steve

Modeling the Hetch Hetchy Railroad in 1919: A Black and White Approach to Scenery

Saturday 9:00 a.m. - 10:00 a.m. Zephyr

Steve will show how he models the Hetch Hetchy Railroad in black and white using its 1919-era prototype photos for backdrops. This layout is unique in that the entire layout is black and white and each modeled scene replicates the photo behind it. This Dead Rail On30 layout has other unique features including "quick change backdrops", magnetic aligning turntables and more. The Hetch Hetchy Railroad was built to support building a huge dam in Yosemite National Park and the High Sierra portion of an aqueduct carrying water to San Francisco.

Schneider, Frank

Make your own decals

Thursday 3:00 p.m. - 4:00 p.m. Zephyr

In this clinic, I will describe a way of making waterslide decals with white and metallic printing. All it takes is some special materials, a laser printer, and a laminator. Make silver, gold, white, or any color or combination of color decals.

Surface Mounted LEDs

Wednesday 3:00 p.m. - 4.00 p.m. Zephyr

With surface mount LEDs we can get LEDs into spots previously thought of as unreachable. Frank shows how to pick, wire, and install them, using examples from his N scale modeling. After this clinic you will be able to find, wire, and power a surface mount LED.

Sekera, Roger

Developing Your Operations from Start to Timetable and Train Order

Saturday 11:00 a.m. - 12:00 noon Daylight

An approach or plan to transition or migrate from solely sequence-based operations to one using fundamental TT&TO rules and procedures.

Stafford, Robert

Burlington Northern Unit Coal Train Operations

Tuesday 9:30 a.m. - 10:00 a.m. Daylight + Zephyr

Review of BN operations when I worked on the Denver Region. Review of how we handled switching of empty coal trains at Alliance, NE. Wyeing of coal trains to equalize flange wear. Setting out and the picking up of bad order cars en-route.

Burlington Northern Unit Grain Train Operations

Tuesday 9:30 a.m. - 10:00 a.m. Daylight + Zephyr

Operation of unit grain trains when I worked on the Denver Region of the BN during the 1980s.

Steinmetz, Pete***Dead Rail Systems in Smaller Scales***

Thursday 10:00 a.m. - 11:00 a.m. Zephyr

An overall discussion of battery powered remote control systems currently on the market. I will give a brief history of Battery Power, advantages of Dead Rail, available systems and their advantages, discussion of batteries, battery charging, and battery safety.

Weathering with Pan Pastels and Other Media

Wednesday 10:00 a.m. - 11:00 a.m. Zephyr

This clinic will show how to weather using Pan Pastels as a starting point for weathering a plastic body car. Other media will be AK Weathering Pencils, Oils, Washes, Pigments, and markers. All this mixed together will result in a convincing weathered car.

Walden, Jesse***An Operating System for Smaller Layouts***

Saturday 10:00 a.m. - 11:00 a.m. Daylight

I do not have a multi hundred foot layout but I like to know why am I moving trains and where are they going. We will cover what is an operating system and what is it supposed to do. What do real railroads do and what is appropriate for a smaller layout. How the system works on my home layout.

Weinheimer, MMR®, Bob***Evolution of an Operating Scheme***

Friday 11:00 a.m. - 12:00 noon Daylight

This clinic describes the process of getting to where the operating scheme is today. It shows the growth of industry, car fleet, and staging as well as the improvements over the years in car routing and dispatching.

Getting Started in Operations

Wednesday 4:00 p.m. - 5:00 p.m. Zephyr

This is an EduTRAIN clinic written by the presenter. In this clinic, we will take a high level approach to the sorts of issues someone starting out in operations might consider. Probably one of the most important is to determine how the operation is intended to interact with the rest of the world. Other issues include train authorization methods, how to determine where cars should go, ideas on car fleets, a consideration of era. Options to consider for each of those areas are presented, it will be up to the operator to choose what works best for him or her.

Operations on the Pennsylvania Southern

Thursday 11:00 a.m. - 12:00 noon Daylight

This clinic describes operations on the presenter's railroad. Topics include layout tour, rolling stock, car routing, train descriptions, dispatching, yard operations, local operations, and staffing.

Winn, Don***Kitbashing - Think outside the Walthers box!***

Friday 10:00 a.m. - 11:00 a.m. Zephyr

You need dozens, perhaps hundreds, of structures for your home or club layout. There's not enough time to scratchbuild them all, but building a kit to the instructions leaves you with a layout that looks more like a Walthers sales display and less like the unique railroad you are trying to present. Also, many of the spaces you have on your railroad are oddly shaped where a rectangular building won't fit. We will discuss tips and tricks to help you build structures that fit your layout and will hopefully inspire you to customize your buildings to tell your railroad's story.

Events and Panel Discussions

Welcome Messages

Tuesday 9:00 a.m. - 9:30 a.m. Daylight + Zephyr

Ed Slintak, Rails By The Bay Convention chair, and Gordy Robinson, MMR®, NMRA President welcome you to the convention.

Layout Owner Panel

With Paul Deis

Tuesday 7:00 p.m. - 8:00 p.m. Zephyr

Featuring: James Brassill, Dave Falkenburg, Dave Tateosian, Dave Adams, Dave Stanley

Layout Owner Panel

With Paul Deis

Tuesday 8:00 p.m. - 9:00 p.m. Zephyr

Featuring: Jim Providenza, Seth Neumann, Paul Weiss, John Zach

Dispatcher Fireside Chat - What it was really like?

with Clifton Linton

Wednesday 7:00 p.m. - 9:00 p.m. Daylight

Four former railroad dispatchers, Mark Amfahr, Steve “Breezy” Gust, Rick Kang, Tom White, Joe Fugate, share their stories and tips about railroad operations and control. Learn about the job of a dispatcher and how it can apply to the model world.

Pull up a chair and join this moderated conversation. We will monitor the chat for your questions. If you have an advance question – drop us a line at clinics@nmra2021.com Please put “Fireside Chat” in the subject line.

Jim Vail, MMR Tribute Panel

With Dave Adams

Wednesday 7:00 p.m. - 8:00 p.m. Zephyr

Featuring: Guy Cantwell, Craig Symington, Jerry Boudreaux,

What would you do Differently?

with Seth Newmann

Thursday 7:00 p.m. - 9:00 p.m. Daylight

Panel of Hosts from the Wednesday Layout Design SIG Tour discussing lessons learned and the evolution of their thinking. Featured Owners include: Jack Burgess, Guy Cantwell, Howard Lloyd, Ed Merrin, and Paul Weiss.

Layout Owner Panel

With Paul Deis

Thursday 7:00 p.m. - 8:00 p.m. Zephyr

Featuring: Rick Fortin, Richard Croll, David Parks, Richard Eberli

Thank you for coming Message

Friday 5:00 p.m. - 5:30 p.m. Daylight + Zephyr

By Gordy Robinson, MMR®, NMRA President.

Modeler's Showcase

With Earl Girbovan

Friday 7:00 p.m. - 8:00 p.m. Daylight

Dave Adams An Approach to Building Operating Telegraph Sounders

Dave Croshere Scenes around Port Croesus

Paul Deis Building the Stenner Creek Trestle

Fran Foley 3D Printing On30 Trains

Earl Girbovan A Tour of the Clear Lake Lumber Company

Jesse Walden Adding Easy Details to a Model

[Continues on next page]

Operate the Silicon Valley Lines – Remotely!

Friday 7:00 p.m.

Silicon Valley Lines (SVL), a club layout in San Jose, California, will be hosting a remote operating session. They will be able to accommodate up to 30 engineers. [Click here to request an operator position.](#)

Contact [James Brassill](#) for questions.

Layout Owner Panel

With John Abatecola

Friday 7:00 p.m. - 8:00 p.m. Zephyr

Featuring: Jack Burgess, Guy Cantwell, Howard Lloyd, Tony Thompson

Layout Owner Panel

With Paul Deis

Saturday 7:00 p.m. - 8:00 p.m. Zephyr

Featuring: Ed Merrin, Chuck Oraftik, Bill Kaufman, Dave Houston

Breakouts

The [Layout Design Special Interest Group](#) will have their own channel up for the whole convention to provide a virtual “SIG Room” experience. They’ll have 45-minute consulting sessions, the SIG Meet & Greet Monday evening, July 5th, before the convention starts, and a SIG “Dinner” Friday night. For more information about their activities, see the [LDSIG, Rails by the Bay, NMRA Convention 2021](#) website.

Tuesday 12:00 noon - 2:00 p.m.

Ray Persing will host a **Scratch Building** breakout room discussing the question, “**Is Scratch Building Dead?**”.

Tuesday 12:00 noon - 2:00 p.m.

YouTube Modelers

Featuring [Human\[c\]ity Junction](#).

Tuesday 1:00 p.m. - 2:00 p.m.

Cydney George-Abatecola ([TSG Multimedia](#)), Michelle Kempema ([Colorado Model Railroad Museum](#)) and Christina Zambri (Marketing Consultant for [NMRA](#)) will host a “**For Ladies in the Hobby**” session.

Tuesday 5:00 p.m. - 7:00 p.m.

Travers Stavac will host

The [B&O Railroad Historical Society](#) session.

Focus will be on the BORHS and its facilities as the place to get answers

- Portal to Information
- Collections and PastPerfect of items
- Archives Facility
- How to access documents and holdings

Tuesday 5:00 p.m. - 7 p.m.

ProtoSteam Throttle

breakout room hosted by Mark Stafford

Wednesday 12:00 noon - 2:00 p.m.

Ed Merrin will host a **Cool Tools** breakout room to discuss **Photos/Photo Processing**.

Wednesday 12:00 noon - 2:00 p.m.

[CMRI SIG](#) meeting hosted by Seth Neumann
Computer/Model Railroad Interface as developed by Dr. Bruce Chubb.

[Continues on next page]

Wednesday 12:00 noon - 2:00 p.m.
Dave Adams will host a **Narrow Gauge** breakout room.

Wednesday, 12:00 noon - 2:00 p.m.
Jere Ingram will host the [Modular Signal System – MSS SIG](#) breakout room.

Wednesday 12:30 p.m.
Gordy Robinson, MMR® will host **Meet the President** session.

Wednesday 3:00 p.m.
Bob Ellis will host a **Passenger Operations** session.

Wednesday 5:00 p.m. - 7:00 p.m.
Travers Stavac will host
The [B&O Railroad Historical Society](#) session.
Focus will be on equipment and infrastructure

- Photos, drawings, company documents, Engineering Reports

Wednesday 5:00 p.m. - 7:00 p.m.
YouTube Modelers hosted session
by John Abatecola of [TSG Multimedia](#)

Thursday 10:00 a.m.
Bob Ellis will host a **Passenger Operations** session.

Thursday 12:00 noon - 2:00 p.m.
Jere Ingram will host the [Modular Signal System – MSS SIG](#) breakout room.

Thursday 12:00 noon - 2:00 p.m.
YouTube Modelers hosted session
Featuring [Human\[c\]ity Junction](#).

Thursday 12:00 noon - 2:00 p.m.
A **Small Scales** session for attendees N, Nn3, TT, TTn3 and Z scales.

Thursday 12:00 noon - 2:00 p.m.
Seth Neumann will host a **Cool Tools** session to discuss **Eagle CAD**.

Thursday 5:00 p.m. - 7:00 p.m.
Travers Stavac will host
The [B&O Railroad Historical Society](#) session.
Focus will be on Operations

- Use of the Form 6
- Freight Working Books
- Terminal Operations

Friday 9:00 a.m. - 11:00 a.m.
Rene Gourley will host a session to discuss [Proto:87](#).

Friday 12:00 noon - 2:00 p.m.
Ray Persing will host a **Cool Tools** breakout room to discuss **3D Printing (and the AP Program)**.

Friday 12:00 noon - 2:00 p.m.
Dave Adams will host a **Narrow Gauge** breakout room.

Friday 5:00 p.m. – 7:00 p.m.
Cydney George-Abatecola ([TSG Multimedia](#)),
Michelle Kempema ([Colorado Model Railroad Museum](#)) and
Christina Zambri (Marketing Consultant for [NMRA](#))
will host a “**For Ladies in the Hobby**” session.

Friday 5 p.m. - 7 p.m.
ProtoSteam Throttle breakout room hosted by Mark Stafford

Saturday 12:30 p.m.
Gordy Robinson, MMR® will host a **Meet the President** session.

Saturday 6:00 p.m. - 7:00 p.m.
Jack Burgess, MMR® will host a **Cool Tools** breakout room to discuss **Hand Tools**.

Themed Breakout Rooms

B&O Railroad Historical Society
CMRI SIG
Cool Tools
For Ladies in the Hobby
Garden Scale
Model Railroading Tech
(DCC , JMRI, Arduinos, Loco-fi™, dead rail™, etc.)
Modeling Canadian Railroads
Modeling Eastern Railroads
Modeling Modern Railroads
Modeling non-U.S. Railroads
Modeling the NYC
Modeling the Pennsy
Modeling the Rio Grande
Modeling the SP
Modeling the UP
Modeling the Western Pacific
Modeling Western Railroads
(ATSF, BN, BNSF, D&RGW, SP, UP, WP, etc.)
Modular Layouts
Modular Signal System (MSS) SIG
Narrow Gauge
NMRA
O Scale
Operations
Proto 87 SIG
ProtoSteam Throttle
Railroad Prototype Modelers
Scratch Building
Small Layouts
Small Scales
Train Photography
Under 30
YouTube Modelers

Our Social Gathering Rooms

- any topic!
The Caboose
The Dining Car
The Hotel Bar
The Lounge Car
The Observation Car

Our Vendor Rooms

Chief Vendor Focus Room

Clinic Goes On Rooms

Clinic Goes On Daylight 1
Clinic Goes On Daylight 2
Clinic Goes On Daylight 3

Clinic Goes On Zephyr 1
Clinic Goes On Zephyr 2
Clinic Goes On Zephyr 3

Additional Rooms

Eureka Room
Mariposa Room
Maui Room
Mineral Room
Napa Room
San Francisco Room
Santa Barbara Room
Santa Cruz Room
Shasta Room
Sonoma Room
Yosemite Room

Vendor Focus Schedule

All events are in the: Chief Vendor Focus Room

Tuesday 12:00 noon - 1 :30 p.m.

Model Railroad Control Systems

CTC and layout control, signaling and a range of solutions for layout control.

www.modelrailroadcontrolsystems.com/

Tuesday 5 p.m. - 6 :30 p.m.

Miniprints

Multiscale 3D printed figures.

miniprints.com/nmra

Wednesday 12:00 noon - 1 :30 p.m.

Iowa Scaled Engineering

An Amazing Diesel Proto Throttle - also multiscale. Scott Thornton will host a session discussing his product line, including the Protothrottle and other DCC and electronic items. Iowa Scaled Engineering

Thursday 12:00 noon - 1 :30 p.m.

Bachmann Trains

Multiscale Model Railroad Manufacturer.

www.bachmanntrains.com/home-usa/

Friday 12:00 noon - 1 :30 p.m.

Inter-Action Hobbies

Multiscale Laser Cut Structures and Laser/Cast Details.

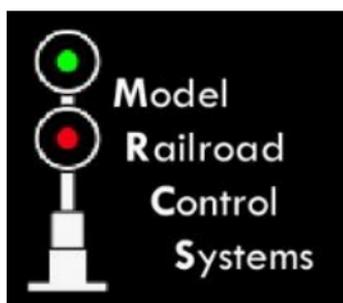
www.interactionhobbies.com

Saturday 12:00 noon - 1 :30 p.m.

Dwarvin Lighting

Multiscale fiber optic lighting systems for layouts and structures.

www.dwarvin.com/



INTER-ACTION
Hobbies

Rail and Tie Craftsman Kits







**Gateway 2022
NMRA Convention**

**St Louis, Mo
August 7-13, 2022**

St Louis Marriott Grand Hotel

**Registration and details at
gateway2022.org**





Make your plans to attend the 2023 International Convention in Dallas/Fort Worth, Texas. We plan on upholding the old saying that **“Everything is BIGGER and BETTER in Texas!”** This will be the first convention ever in Dallas/Fort Worth and only the second convention to be held in Texas in over 30 years. The Texas Express promises to be an outstanding worldwide spectacular of outstanding Clinics, Rail and Non-Rail tours, Layouts galore and fun filled events for the whole family. Dallas/Fort Worth is located almost exactly in the geographic middle of the country and is easily serviced by air as well as by rail. The Texas Eagle and the Heartland Flyer both make stops in Fort Worth.

The dates of the convention are August 21-26, 2023 and the location is the Gaylord Texan, a mammoth Marriot Resort Hotel, complete with its own water park for the kids. Four passes to the water park per day are included in your room rate of \$179.00 per night, double occupancy.

By the way, don't worry about the Texas heat...the convention and the train show are a short air conditioned walk away through the sky-bridge connecting the hotel and the convention center.

The hotel is extending the convention rate before and after the event so stick around and explore the area. Visit the world's longest running rodeo held in Fort Worth or visit Southfork Ranch and return to the days of the hit television show "Dallas". Museums, wine tastings, excellent food and tons of shopping await you.

We can't wait to show you the legendary Texas hospitality that we are famous for. Join us and make memories that will last you a lifetime!

www.2023texasexpress.com

Future Regional Conventions

Bring your models to ...
THE TULSA UNION CONVENTION

October 6-10, 2021
Come to the convention and take advantage of 21 great clinics and 15 layouts available for operating sessions and touring.

Tom Fausser's South Brooklyn Terminal RR

Kenneth Ehlers' Pandora & San Miguel Rwy

WWW.2021TulsaUnion.com
The 2021 Tulsa Union Convention is a joint production of the Indian Nations Division, the Midcontinent and Lone Star Regions, NMRA.

Additional Regional Conventions on NMRA Website

British Region

Grand Junction Convention 2021,
October 22 – 24, 2021,
Derby Conference Centre, Derby DE24 8UX, UK
<https://www.black-diamonds.org.uk/convention/>

Mid-central Region+ Midwest Region

Indy Junction 2022,
May 18 – 22, 2022,
Indianapolis Marriott East Hotel and Convention Center,
7202 East 21st Street, Indianapolis, IN 46219
<https://www.indyjunction2022.org/>

Mid-Eastern Region

Mount Clare Junction,
October 21 – 24, 2021,
Delta Hunt Valley, 245 Shawan Road, Hunt Valley, MD 21031
<https://mtclarejct.com/>

North Central Region

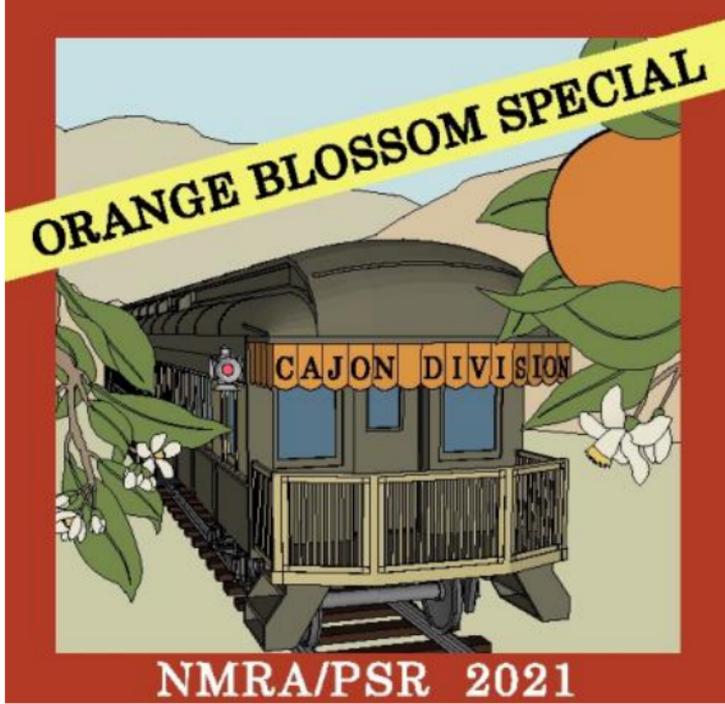
Black Swamp Junction 2021,
October 21 – 24, 2021,
Radisson Hotel at the University of Toledo,
3100 Glendale Avenue, Toledo, Ohio 43614
<https://www.divisiononencr.com/2021/>

Southeastern Region

Swamp Rabbit Express,
September 9- 12, 2021,
Greenville Hilton,
45 West Orchard Park Drive, Greenville, SC 29615-3548
<https://swamprabbitexpress.org/>

Sunshine Region

Sunshine Express II,
October 14 – 16, 2021,
Holiday Inn Express & Suites Plant City,
2102 Park Road, Plant City, FL 33566
<https://www.sunshineregion.org/region-convention>

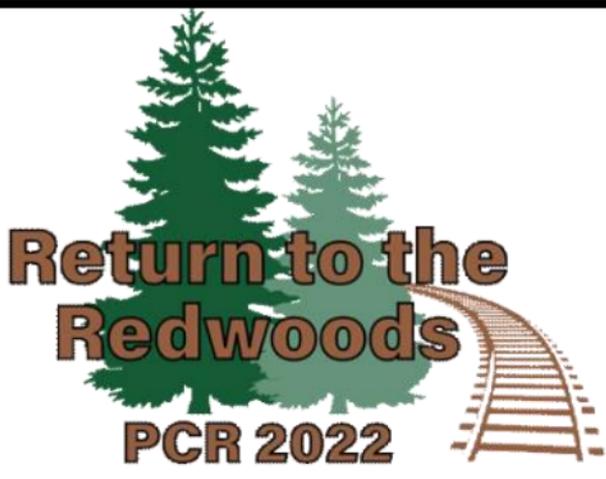


NMRA Pacific Southwest Region 2021 Convention

September 8 - 11, 2021

Hilton Hotel / Orange County Airport
18800 Macarthur Blvd, Irvine, CA, 92612

[https://www.psrconvention.org/
OrangeBlossomSpecial2021/](https://www.psrconvention.org/OrangeBlossomSpecial2021/)



will take place at the

Doubletree by Hilton Hotel Sonoma Wine Country,
One Doubletree Drive, Rohnert Park, California
from **April 21 - 24, 2022.**

The host hotel offers comfortable accommodations and
is only 30 minutes from Redwood Forest, Pacific
Ocean, Safari West, and 450+ wineries.

<http://pcrnmra.org/conv2022/>

MAKE TRACKS TO EUGENE 2022

The PNR convention will be **May 11-14, 2022**
at the Valley River Inn in Eugene, Oregon.

The convention website is

www.maketracksto Eugene.com

The hotel website is

<https://www.valleyriverinn.com/>

	Tue. Jul 6	8:00 - 9:00	9:00	10:00	10:00	11:00	11:00	12:00	12:00	12:30	1:00	2:00	2:00	3:00	3:00	4:00	4:00	5:00	5:00	5:30	6:00	7:00	7:00	8:00	8:00	9:00	9:00 - 10:00			
Great Hall	Convention hub. Information, Assistance, Links to Breakout Rooms																													
Daylight Clinic Track	Morning Meet-up	Welcome, Slintak and Robin- son, MMR®	Unit Trains, Stafford	Scratchbuilding in Wood, Persing	Basics of American Steam Locomotives, Perthoud	Lunch Break						Setting Up for Operations, Juett, MMR®	Car Forwarding with JMRI, Juett, MMR®	Clark's Tool Ideas, Kooning, MMR®	Dinner Break				Ethanol by Rail, Linton	Layout without a Plan, Morden										
Zephyr Clinic Track				Make Only New Mistakes, Henderson and Neumann								Printing Interiors, Edholm	Oahu Railway, Erickson	Fifty Years of Amtrak + Business Cars, Private Cars, Hobbs					Layout Tour Panel Brassill, Falkenburg, Tateosian, Adams, Stanley	Layout Tour Panel Providenza, Neumann, Weiss, Zach										
Breakouts							Scratch Building - Is Scratchbuilding Dead?, Ray Persing				B&O Railroad Historical Society, Travers Stavac																			After Party
Breakouts							YouTube Modelers - Human[c]ity Junction																							
Breakouts										For Ladies in the Hobby, George- Abatecola, Kempema, Zambri																				
Tuesday, July 6, All times Pacific Daylight Time. See Time Zone Chart for time at your location.																														

Wed. Jul 7	8:00 - 9:00	9:00	10:00	10:00	11:00	11:00	12:00	12:00	12:30	1:00	2:00	2:00	3:00	3:00	4:00	4:00	5:00	5:00	5:30	6:00	7:00	7:00	8:00	8:00	9:00	9:00 - 10:00
Great Hall	Convention hub. Information, Assistance, Links to Breakout Rooms																									
Daylight Clinic Track	Creating Operations on the Louisville Southern Lines, Frankrone		Blurring the line: Freelancing from the Prototype, Cantwell		Let's Visit the Diamond Point Railways, Nathanson		Lunch Break					A Day in the Life of a Train Dispatcher, Gust		What is Model Railroading?, Fraser		40 Minutes with Clark, Kooning, MMR®		Dinner Break				Dispatcher's Fireside Chat, Linton with Steve "Breezy" Gust, Thomas White, Rick Kang, Mark Amfah and Joe Fugate				
Zephyr Clinic Track	Structures on an Extraordinary O Scale Traction Layout, Lull		Weathering With Pan Pastels and Other Media, Steinmetz		Using 3D printed building framing in an O scale model, Edholm							Western Grocer, Harding, MMR®		Surface mounted LEDs, Schneider		Getting Started in Operations, Weinheimer, MMR®						Jim Vail, MMR® Tribute, Adams, Cantwell, Symington, Boudreaux		Direct Traffic Control, Morden		
Breakouts	Morning Meet-up						Cool Tools - Photos/Photo Processing, Ed Merrin							Passenger Operations Bob Ellis		B&O Railroad Historical Society, Travers Stavac										
Breakouts							CMRI SIG meeting, Seth Neumann							YouTube Modelers Session, John Abatecola												
Breakouts							Narrow Gauge Meeting, Dave Adams																			
Breakouts							Modular Signal System - MSS SIG, Jere Ingram																			
Breakouts							Meet the President, Gordy Robinson, MMR®																			
Wednesday, July 7, All times Pacific Daylight Time. See Time Zone Chart for time at your location.																										

Thu. Jul 8	8:00 - 9:00	9:00	10:00	10:00	11:00	11:00	12:00	12:00	12:30	1:00	2:00	2:00	3:00	3:00	4:00	4:00	5:00	5:00	5:30	6:00	7:00	7:00	8:00	8:00	9:00	9:00 - 10:00
Great Hall	Convention hub. Information, Assistance, Links to Breakout Rooms																									
Daylight Clinic Track	Love Those Loads, Frankrone		So You Want to Build a Dream Model Railroad?., Decker		Operations on the Pennsylvania Southern, Weinheimer, MMR®		Lunch Break					Update on the Nickel Plate, Koester		Installing Sound Decoders, Juett, MMR®		Using Decoder Pro, Juett, MMR®		Dinner Break				What Would You Do Differently?., Neumann				
Zephyr Clinic Track	Operating the Fall Creek Branch, Pethoud		Dead Rail Systems in Smaller Scales, Steinmetz		Maximizing Small Layout Operations, Daumann							Building The "Magic of Scale Model Railroad-ing" exhibit, Markovich, MMR®		Make your own decals, Schneider		Wiring with Arduinos, Neo-Pixels and Resistor chains, Hill						Layout Tour Panel, Fortin, Croll, Parks, Eberli		Madera Sugar Pine, McGhee		
Breakouts	Morning Meet-up		Passenger Operations, Bob Ellis				Modular Signal System - MSS SIG, Jere Ingram									B&O Railroad Historical Society, Travers Stavac										
Breakouts							Small Scales breakout room for those into N, Nn3, TT, TTn3, and Z scales																			
Breakouts									CoolTools - Eagle CAD, Seth Neumann																	
									YouTube Modelers, Human[c]ity Junction																	
Thursday, July 8, All times Pacific Daylight Time. See Time Zone Chart for time at your location.																										

After Party

Fri. Jul 9	8:00 - 9:00	9:00	10:00	10:00	11:00	11:00	12:00	12:00	12:30	1:00	2:00	2:00	3:00	3:00	4:00	4:00	5:00	5:00	5:30	6:00	7:00	7:00	8:00	8:00	9:00	9:00 - 10:00
Great Hall	Convention hub. Information, Assistance, Links to Breakout Rooms																									
Daylight Clinic Track	Layout From Design to Details, Deis		Painting in a post-Floquil world, Fugate		Evolution of an Operating Scheme, Weinheimer, MMR®		Lunch Break				Scenery techniques – the Central Valley and the Western Sierras, Cantwell		How to add a scene to a layout in 15 easy steps, Frankrone		Re-Animating a US&S type 506 CTC Console, Neumann		Dinner Break		Modeler's Showcase, Girbovan		Butane by rail - a prototype you can model, Linton					
Zephyr Clinic Track	3D Printing for Model Railroading, Persing		Kitbashing - Think outside the Walthers box!, Winn		Photoshop Elements as a Modeling Tool, Burgess, MMR®						NMRA's Magic of Scale Model Railroading Exhibit: A Guided Tour, Getz, Palermo		Silicon Valley Lines "Under the Layout" Tour, Falkenburg & Brassill		Make it run like a Dream, Fugate				My Life in Trains, Gross		Layout Tour Panel, Burgess, Cantwell, Lloyd, Thompson		Basic Air-brushing, Hall, MMR®		Painting an SP Cab-Ahead, Hall, MMR®	
Breakouts	Proto:87 Session, Rene Gourley								Cool Tools - 3D Printing and the AP Program, Ray Persing								For Ladies in the Hobby, Cydney George-Abatecola, Michelle Kempema, Christina Zambri									
Breakouts									Narrow Gauge Session, Dave Adams																	
Online																	Operate the Silicon Valley Lines Remotely									

After Party

Friday, July 9, All times Pacific Daylight Time. See Time Zone Chart for time at your location.

Sat. Jul 10	8:00 - 9:00	9:00	10:00	10:00	11:00	11:00	12:00	12:00	12:30	1:00	2:00	2:00	3:00	3:00	4:00	4:00	5:00	5:00	5:30	6:00	7:00	7:00	8:00	8:00	9:00	9:00 - 10:00
Great Hall	Morning Meet-up	Convention hub. Information, Assistance, Links to Breakout Rooms																								After Party
Daylight Clinic Track		Fast Forward – 15 Years of layout Construction in an Hour, Cantwell	An Operating System for Smaller Layouts, Walden	Operations from Start to Timetable and Train Order, Sekera	Lunch Break				LABRF: Los Angeles to Bakersfield, Osborne	Seasickness Unknown: The Pacific Coast Companies, Palermo	Model Railroad Communications (Phones for Ops), Neumann	Thanks for Com-ing, NMRA President Gordy Robinson, MMR®	Dinner Break			Zimo DCC, McNary	Using Sanborn maps and aerial photos for layout design, Morden									
Zephyr Clinic Track		Hetch Hetchy Railroad in 1919: A B&W Approach to Scenery, Redeker	Tuning up your rolling stock, Deis	An Update on the Union Pacific Oakland Sub, Neumann					Developing Operations for Your Layout, Kaufman	Focus Stacking and Low Perspective Photography, Merrin	Siskiyou Line 2 clinic, Fugate					Layout Tour Panel, Merrin, Orafluk, Kaufman, Houston	Detailing & Painting the Southern Pacific 1941 Lark, Hall, MMR®									
Breakouts						Meet the President, Gordy Robinson, MMR®									Cool Tools - Hand Tools, Jack Burgess, MMR®											
Breakouts																										
Breakouts																										
Saturday, July 10, All times Pacific Daylight Time. See Time Zone Chart for time at your location.																										

	9:00	10:00	10:00	11:00	11:00	12:00	12:00	12:30	1:00	2:00	2:00	3:00	3:00	4:00	4:00	5:00	5:00	5:30	6:00	7:00	7:00	8:00	8:00	9:00
Great Hall	Convention hub. Information, Assistance, Links to Breakout Rooms																							
LDSIG Monday																		LDSIG Meet and Greet LDSIG Zoom						
LDSIG Daily						Open Discussions LDSIG Zoom												Open Discussions LDSIG Zoom						
LDSIG Daily	Layout Design Consultations, by appointment LDSIG Zoom																							
LDSIG Tuesday		Make Only New Mistakes, Byron Henderson, Zephyr Clinic Track																						
LDSIG Thursday																	Annual SIG Dinner, with Otis McGee, LDSIG Zoom		What Would You Do Differently? Daylight Clinic Track					
	Vendor Focus Sessions - in Chief Vendor Focus Room																							
Tuesday						Model Railroad Control Systems												Miniprints						
Wednesday						Iowa Scaled Engineering																		
Thursday						Bachmann																		
Friday						Inter-Action Hobbies																		
Saturday						Dwarvin Lighting																		
All times Pacific Daylight Time. See Time Zone Chart for time at your location.																								

Zone ± GMT	AEST +10	NZST +12		HST -10	PDT -7	MDT -6	CDT -5	EDT -4	GMT 0	BST +1	CEST +2
	2:00 a.m.	4:00 a.m.		6:00 a.m.	9:00 a.m.	10:00 a.m.	11:00 a.m.	12 Noon	4:00 p.m.	5:00 p.m.	6:00 p.m.
	3:00 a.m.	5:00 a.m.		7:00 a.m.	10:00 a.m.	11:00 a.m.	12 Noon	1:00 p.m.	5:00 p.m.	6:00 p.m.	7:00 p.m.
	4:00 a.m.	6:00 a.m.	International Date Line	8:00 a.m.	11:00 a.m.	12 Noon	1:00 p.m.	2:00 p.m.	6:00 p.m.	7:00 p.m.	8:00 p.m.
	5:00 a.m.	7:00 a.m.		9:00 a.m.	12 Noon	1:00 p.m.	2:00 p.m.	3:00 p.m.	7:00 p.m.	8:00 p.m.	9:00 p.m.
	6:00 a.m.	8:00 a.m.	New Zealand Standard Time	10:00 a.m.	1:00 p.m.	2:00 p.m.	3:00 p.m.	4:00 p.m.	8:00 p.m.	9:00 p.m.	10:00 p.m.
	7:00 a.m.	9:00 a.m.		11:00 a.m.	2:00 p.m.	3:00 p.m.	4:00 p.m.	5:00 p.m.	9:00 p.m.	10:00 p.m.	11:00 p.m.
	8:00 a.m.	10:00 a.m.		12 Noon	3:00 p.m.	4:00 p.m.	5:00 p.m.	6:00 p.m.	10:00 p.m.	11:00 p.m.	Midnight
	9:00 a.m.	11:00 a.m.		1:00 p.m.	4:00 p.m.	5:00 p.m.	6:00 p.m.	7:00 p.m.	11:00 p.m.	Midnight	1:00 a.m.
	10:00 a.m.	12 Noon		2:00 p.m.	5:00 p.m.	6:00 p.m.	7:00 p.m.	8:00 p.m.	Midnight	1:00 a.m.	2:00 a.m.
	11:00 a.m.	1:00 p.m.		3:00 p.m.	6:00 p.m.	7:00 p.m.	8:00 p.m.	9:00 p.m.	1:00 a.m.	2:00 a.m.	3:00 a.m.
	12 Noon	2:00 p.m.		4:00 p.m.	7:00 p.m.	8:00 p.m.	9:00 p.m.	10:00 p.m.	2:00 a.m.	3:00 a.m.	4:00 a.m.
	1:00 p.m.	3:00 p.m.		5:00 p.m.	8:00 p.m.	9:00 p.m.	10:00 p.m.	11:00 p.m.	3:00 a.m.	4:00 a.m.	5:00 a.m.
	2:00 p.m.	4:00 p.m.		6:00 p.m.	9:00 p.m.	10:00 p.m.	11:00 p.m.	Midnight	4:00 a.m.	5:00 a.m.	6:00 a.m.
All listed times in the timetable are Pacific Daylight Time											

Australian Eastern Standard Time

New Zealand Standard Time

International Date Line

Hawaii Standard Time

Pacific Daylight Time

Mountain Daylight Time

Central Daylight Time

Eastern Daylight Time

Greenwich Mean Time

British Summer Time

Central European Summer Time

BACHMANN™

HO SCALE



The future rides with us

Announcing the Amtrak® ALC-42 Charger in HO Scale Limited-Edition #301 Arriving This Fall

Amtrak has announced the much-anticipated 50th Anniversary paint schemes celebrating the inauguration of service in 1971. The brand-new ALC-42 Charger #301, expected to enter service later in 2021, will wear a celebratory “Day 1” livery.

Bachmann is pleased to announce the upcoming release of the ALC-42 Charger in HO scale. ***Developed in collaboration with Siemens Mobility, our model uses original design documentation and prototype field recordings for maximum realism. This highly detailed, limited-production model will feature the Day 1 livery and will be available in limited quantities.*** Features will include a robust DCC WOWSound® audio package from TCS that accurately reproduces all the prototype’s sounds. Charge into your local hobby retailer to check out their preorder options today!



WOWSound®

AMTRAK #301
("Day 1" livery; illustration shown)
Item No. 68303



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