



## CLINIC DESCRIPTIONS

**See also MINI-CLINICS, below**


**Updated 6/4/17**

Clinic Title & Time	Presenter	Description
Achievement Program Evaluator Seminar Th, 9:00 am	Hamilton	NMRA Achievement Program participation can be one of the most meaningful and rewarding benefits of NMRA Membership. The program which is self-administered by NMRA members is dependent on a certain number of members accepting the challenge to make themselves available and ready to complete evaluations. To be clear, AP evaluation is completely separate from NMRA Contest Judging and the approach to AP Evaluation is also significantly different. In this seminar, we will address the basics of AP evaluation with concentration on Cars, Motive Power, Civil, and structures category. We will address the application of the Evaluation Matrix and the "Points to ponder" for each evaluation category. The seminar will include the opportunity for attendees to complete model evaluations. The anticipated outcome for the seminar is to identify a number of individuals who will be recommended to Division Superintendents to serve as AP Evaluators.
Airbrush Use and Care Fri, 1:30 pm	Barone	Clinician will discuss, types of air brushes, maintenance, (disassembly and assembly), cleaning procedures and if time permits, hands on demonstration of air brushing handling for those who have never used an air brush before. Also, bring all your painting questions for open discussion.
Arduinos for Turnout Control and Other Uses Thu, 10:30 am	Blanchard	A discussion of the capabilities and limitations of the Arduino micro-controllers and details on using them with servos to control turnouts. Includes examples of how simple the programming is and how to access the resources available to guide a beginner.
Big Railroads in Small Spaces ... that will never fit! Fri, 3:00 pm	Wright	Join Greg Wright as he describes how to fit a model railroad into any space and make it look and feel bigger. Greg will share his ideas, his favorite reference material and use his Consolidated Republic Mining Railroad to illustrate his point. Greg Wright has been modelling since 1975 in HO, HO <sub>n3</sub> and 1:32 scale. His current railroad, the Consolidated Republic Mining Railroad, is built in 1:32 scale in a 22' by 14' space, smaller than many HO scale layouts. Greg's layout has been featured in Railroad Model Craftsman, Finescale (Outdoor) Railroader and numerous times in the Narrow Gauge and Shortline Gazette. Greg received MMR #520 in the fall of 2013.
Building a Bridge to Somewhere Sat, 10:30 am	Chain	This is a presentation about how one can go about "imagineering" a bridge that "is appropriate to my model railroad layout." Emphasis is on the appropriateness of a bridge for a given layout and the clinic will cover many design issues.

Clinic Title & Time	Presenter	Description
Building the Free-Mo Module Frame and Legs Thu, 1:30 pm	Tietz, Barsness	Topics to be covered: 1. The various types of construction 2. End Plate construction 3. Building Leg Sets 4. Building a Free-mo Loop 5. Your Track Plan 6. Planning for turnouts (Tortoise Motors) 7. Testing
Clear Board Across Canada - A history of the Canadian Pacific Silk Trains Fri, 9:00 am	Cave	The term "silk train" was used to describe cargo trains carrying expensive shipments of Oriental raw silk across North America. The trains sped from ports on the west coast to merchants in eastern Canada and the US, from 1885 to the early 1930s. The valuable cargo deteriorates rapidly and the market fluctuated daily, so speed, security and safety were essential. Silk arriving by CP ship in Vancouver was loaded into airtight train cars specially lined with varnished wood, sheathed in paper and sealed so that no damaging moisture or thieves could intrude. Armed guards and insurance representatives were the only passengers and travelled in a coach at the end of the train. Trains of up to 15 cars rushed from the west coast to mills and merchants in the east. The silk trains typically had preference over all other trains along the route. The presentation will cover the history of the trains and some modelling aspects.
Composition, Color and Scale: How to stage a scene is more important than how to stage a train. Thu, 3:00 pm	Wright	Join Greg Wright as he describes how staging a scene can enhance or derail realism. Using tricks from diorama builders and examples, both good and bad, Greg walks you through trains and scenes to help you increase your pleasure and that of your guests. Good staging doesn't take any more space and might even save you from overbuying.
Structure Details make a Good Model Great Th, 1:30 pm	Hamilton	In the real world, we stand at street level looking up at buildings or across the top of most of the stuff at our level. We are missing those little things that make the difference between "pristine" and "Lived in" I discovered that I really don't "see" much of what I look at. My best tool for details is my camera. Pictures are not lazy and they show me what I would otherwise miss. Let's take a walk around my town and see what we find. You may discover a whole new aspect of scenery and detail modeling.
Electrical and Command Control for Free-mo Fri, 9:00 am	Sebelley	<div> </div> What are all these wires and circuit boards about? We will discuss the Free-mo specifications for each of the 4 required electrical busses as well as the 1 optional bus. Wire gauges, connectors, and recommendations will be covered.

Clinic Title & Time	Presenter	Description
Fences are structures, too Fri, 1:30 pm	Frasch	The clinic will show many real life examples of fences and how they may be scratch built for your layout. Fences are an important part of the everyday world and should be on our layouts also. They allow us to designate mini-scenes for those observing our layouts and may make a layout seem larger than it really is. Most of the examples will come from the more than 40 different fences on the presenter's own layout.
Finishing Wood Models Fri, 9:00 am	Schaenzer	The final finish of a wooden surface is made up of texture and color. Suggested tools and techniques for adding texture to wood components are demonstrated. Color is added by using powder scraped from sticks of fine artist's pastel chalk sticks. The resulting pastel chalk pigments as well as solvents used to fix the chalk will be discussed and demonstrated. The emphasis is on finishing wood; however a creative modeler may find this information useful for finishing other materials
From Garden to Layout – Don't Throw That Out Fri, 10:30 am	Huston	The old adage "Nothing in life is free" holds true for most of our scenic materials and our modeling supplies. That said, some scenic materials are almost free if we take the time to gather some of the "yard waste" that we end up "recycling" throughout summer and fall each year. I'm not a garden person, however, my wife, Nancy, is. Over the years, she has supplied me with a huge amount of scenery materials, such as: <ul style="list-style-type: none"> <li>• Azalea trimmings – tree trunks and branches.</li> <li>• Butterfly Bush trimmings – logs.</li> <li>• Flower heads – ground cover.</li> </ul> I'll demonstrate how I prepare these and other "nature made" gardening byproducts for use on my layout. I depend on my kitchen blender (for your safety, buy your blender at a yard sale or a thrift store, do not take the one from your kitchen) to reduce bits and pieces of my stash to a handy size and texture. Over time I learned that the color of my ground materials is excellent for simulating various shades of dirt.
Getting Started with Decoder Pro Fri, 9:00 am	Madsen	An introduction to JMRI and the DecoderPro software used to program DCC decoders. This free software makes it very easy to program DCC decoders using familiar locomotive related terms instead of cryptic computer codes. It does require a computer plus one of a number of interface devices, but the investment is well worth it to maintain even a modest fleet of locomotives. The clinic will first explain how the program works from a conceptual point of view, and will try to explain why you would want to use it over a basic DCC command station. This will be followed by a live walk-through of the steps required to get it all working on a Windows 7 laptop computer. Feel free to bring your own computer and follow along with the software installation. While specific examples are based on Digitrax products, the concepts are applicable to all DCC systems.

Clinic Title & Time	Presenter	Description
GN's Republic Branch Thu, 1:30 pm	Langlot	Co-author of "The Rusty Dusty," John Langlot will discuss the history and importance of the Republic Branch to GN's operations in the Pacific Northwest.
How Loud is a Locomotive? Sat, 10:30 am	Wright	Join Greg Wright for a group discussion on how loud your locomotives should be as it travels around your railroad. We are very careful to make sure we build our models to the scale inch, but have you ever considered the scale of sound on your layout? What about forced perspective with sound? You can do it with a scale rule and a little math. Join in for an interesting discussion, you may find that you have your locomotives set too quiet.
Industrial Switching Industries and Track Arrangements Thu, 9:00 am	Segner	The clinic will discuss examples of industrial switching in urban areas using photos and maps of such areas in Seattle. These will include south Lake Union and the Fremont areas as well south Seattle. I will also present several examples of model scenes of such trackage and industrial situations. The variety of industrial uses will offer many suggestions of interesting scenes and operating situations which can be created.
LED 201 – Structure lighting tips & techniques Fri, 3:00 pm	Ashton	This clinic is for modelers who want to use LEDs for layout structure and street lighting applications. After a brief review of some lighting principles, we will cover elementary physical and electrical principles needed to ensure proper circuit designs. Topics will include: Tools and safety, sources for materials, choices of wire, typical circuits, installation tips, and more. It is assumed that participants have some experience with or knowledge of LED characteristics.
Lightweight Scenery Techniques (Free-mo track) Fri, 10:30 am	Ashton, Figy, Kleinert	During this clinic, we will introduce several materials and techniques that can be used to simulate various types of rock and rock formations. Among these will be basalt, common in the Northwest, sedimentary, and granite. All of these types of rock are common throughout the world. The focus of this presentation will be on materials that are relatively light weight, a characteristic that is important in many model railroading applications, especially true for sectional and modular railroads that may need to be transported from one place to another. Other characteristics of the materials that we discuss include being readily available, non-toxic, easy to work with, and reasonably priced.

Clinic Title & Time	Presenter	Description
Modeling Civil War Era Freight Cars Fri, 10:30 am	Pitter	If you have not tried to scratch-build a freight car, consider building one from the early 1860s. This clinic provides information, resources and tips to help you construct flat cars, gondolas, or box cars of that era. This clinic is helpful to beginners who are interested in building wooden freight cars.
Modeling the Spokane International Railroad Fri, 3:00 pm	Pagano	The Spokane International Railroad traveled across 126 miles from Spokane, Washington to the upper part of the Idaho panhandle at Eastport. This presentation will illustrate an introduction to the history, along with maps and photos, of the prototype. The presentation will also introduce modeling photos and design information that helped illustrate the prototype's features for a portable N scale layout project that was featured in the <i>N Scale Railroading</i> and <i>Model Railroader</i> magazines.
Multi-meter Use Fri, 10:30 am	Hamilton	The electrical multi-meter is a primary tool for the safe and reliable of model train electrical systems. Unfortunately, like most model locomotives, meters have the capacity to "smoke" once. Understanding how a meter works and how to use it safely to properly measure resistance, voltage and amperage goes a long way toward making the hobby more enjoyable. When the layout electrical system demonstrates that Murphy has taken up residence, only a well-versed meter user will force him to relocate. Proper meter use also protects both the equipment and the operator from shocking results.
Operations at the Nelson Diesel Shops Thu, 3:00 pm	Barone	 <p>This clinic will give an overview of operations of this CPR facility as remembered by Mike Barone who worked there as a summer student between 1968 and 1974. Review will include layout, photo tour, work performed and consisting whys and hows with some emphasis on procedures which can be applied to operations oriented model railways.</p>
Operations on a Free-mo Layout Fri, 1:30 pm		This session will be held at the Free-Mo layout in the exhibition hall.

Clinic Title & Time	Presenter	Description
Operations on the River City Western Fri, 6:00 pm		This is an operating session at the River City Western layout in Spokane. Space limited to 16 engineers. River City Modelers members will supply motive power, throttles, and conductors. <a href="#">Click here to register</a> , use "SFXOps" (case sensitive) as the password.
Prototype Maintenance of Way Cranes Thu, 9:00 am	Bunza	This Clinic will explore the breadth and history of prototype MOW cranes and derricks and provide modeling notes and references to models created over the years.
Railroad Passenger Service at Spokane Sat, 9:00 am	Hobbs	This presentation will discuss the types of passenger trains operated by the several mainline railroads serving Spokane. The city was served by more railroads, at more depots, than any other in Western North America. We will review four distinct eras of equipment, famous mainline "limiteds," interesting locals, gas-electrics, RDCs, and unusual passenger diesels.
Rail Yard Scenicking Thu, 10:30 am	Cave	This presentation will document a variety of details found in various rail yards which when applied to a model railroad make it interesting and realistic. Rail yards are frequently the major centre of interest on prototype and model railways. They are usually the hub of railway activities and the location of the majority of the specialized infrastructure, rolling stock and locomotives. Rail yards provide the opportunity to model a variety of structures, track equipment, ground covers, spills and textures which lend themselves to close up detailing which creates interest, illustrates modeling skills and often differentiates a high-quality layout from the rest. Numerous prototypical yards have been examined and used as illustrations along with model examples.
Scale Model Animation for Model Railroading Thu, 3:00 pm	Bunza	Animation means giving life to things. Scale model animation is making models behave as if they were alive in miniature—to scale. Traditional model railroaders incorporate animation mostly focused on train movement, naturally enough. But the availability of miniature motors, low cost electronic controls, ultra-small LED (Light Emitting Diode) lighting, and small sound generators has opened up a new world of animation opportunities for the modeler. Come see how you can combine elements of lighting, movement, sound, synchronization and story to make your layout come alive!

Clinic Title & Time	Presenter	Description
Soldering, The Art of Sat, 9:00 am	Thurrow	The intended goal of this clinic is to help attendees improve their soldering skills in the hobby of model railroading. The clinic will cover the basics of soldering electronic connections; it will not cover soldering of mechanical connections (metal). Both types of connections use the same techniques, but differ in the type of solder and fluxes that are used. The clinic will cover different types of solder, flux, and equipment that may be used to make good electrical connections. The training material has been used to teach soldering to electronic and electrical manufacturers in building electronics for the military.
Time-table & Train Order Operations for Model Railroaders Sat, 9:00 am	Ferris	This clinic will show how Time-Table and Train Order (TT&TO) might be considered for successful model railroad layout operations. It will include a general overview of prototype TT&TO components and procedures. A brief sample of how TT&TO is implemented on the Port Townsend Southern (Brian's home layout) will then be shared.
Track Planning for Operation, Layout Flexibility, and Realism Thu, 3:00 pm	Wilhelm	This clinic examines the concept of the Free-mo modular standard allowing modelers to incorporate prototypical track arrangements and real-world scenes while still ensuring a seamless connection to adjacent modules. I'll discuss how the Free-mo standard naturally generates a realistic, non-oval layout, is unlikely to ever be set up the same thus providing something 'new' at shows if that's where it's set up, and offers operating experiences for beginners to experts. While a flat rectangular module aka a 'domino' with straight single or double track meets all the standards, it's operationally 'dead'. I'll provide my impressions of what elements make for an exciting Free-mo module that adds 'action' to a layout from an operational, and coincidentally aesthetic perspective.
Tuning Up Kadee #5 Couplers Fri, 1:30 pm	Liesse	This clinic will show you how to fine-tune your Kadee #5 and other Kadee couplers to operate smoothly and stay centered. It includes pictures and a demonstration of the techniques discussed.

## MINI-CLINICS

**All mini-clinics will be held on Thursday evening from 7:00 pm to 8:30 pm. Clinics will be set up at tables in one or more of the main clinic rooms and attendees may wander about and visit any or all of the clinics.**

Advanced Consists with Decoder Pro	Fassett	I will be set up to demonstrate how to create advanced consists using Decoder Pro. Bring 2 or more locomotives that you'd like to have consisted. Turning on or off advanced consist, once set up, can be done with any command station that can change the CV for the consist address.
Applying Decals	DeSteele	John will discuss and demonstrate the methods he has both adopted and developed for applying decals to model railroad rolling stock. Topics that will be covered include: 1) keeping decals useable for several decades; 2) researching the prototype; 3) pre-decating preparation of models; 4) cutting decals so that the film will be invisible; 5) use of setting and solvent solutions and 6) removing factory lettering. He will show the use of color decal film as a simple alternative to conventional masking and painting. Examples of his completed work will be on display and he will also demonstrate techniques using "work-in-progress" models.
Assembling Dead Trees	Jones	I will be demonstrating my method of assembling dead trees. The basic materials used are from Coastman's Scenic Products. The trunks are carved, broken, and distressed to further "the look." After the branches are applied, done. The process is reasonably painless and the finished product looks great on your layout."
Carving Basalt Rock Formations	Kleinert	
Covered Loads	Tietz	
Pan Pastels	Hamilton	Most of us are accustomed and perhaps experienced in the use of pastels to weather our structures and rolling stock. What happens when you use pastels in place of paint to essentially "paint" your entire project? How do pastels work on different construction materials and are there any "secrets" to making the techniques work? Come join us and find out.
Stripwood Techniques	Segner	



Stumped for Detail?	Rorabaugh	<p>Here and there, several old tree STUMPS add realism, a "story" or another "connect" with your layout's location and history. Stumps are found along rail roadbed cuts through forest, on hillsides, in farmland pasture, city parks and suburban flower beds. Stumps "happened" when land was cleared for homesteads, when logs were taken for timber products or when storm winds toppled trees.</p> <p>This "make and take" mini-clinic will explain, demonstrate and coach each participant the craft of making stumps, appropriate for the scale and terrain being modeled. Our clinician will name source material, utilize tools found in most garages, explain "cut" location and sequence and tell how to bug-proof nature's wood. Participants can examine a pile of cut shrubs to select the perfect specimen, then take a turn at making it layout-ready. It's yours. You're stumped!</p> <p>Clinician Bob, a.k.a. "Stumpy," will also provide realistic "tweaks" on forest features and products, especially useful to logging and sawmill scenes. If nothing else, pick up a brochure for the ideas illustrated by photos. Questions and more? Contact Bob: <a href="mailto:rorabaugh@msn.com">rorabaugh@msn.com</a> or by phone, 206-948-9511.</p>
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