

HUB Headlight

HUB Division Inc., Northeastern Region, National Model Railroad Association - Volume 26 Number 2, Nov.-Dec. 2009
<http://www.hubdiv.org>

RAILFUN TIMETABLE

THE HOOSAC TUNNEL THEN AND NOW

By Jerry Kelley
8 p.m., November 20, 2009
Cambridge School of Weston
See p. 10 for map to Railfun

In what promises to be a fascinating tale of construction of one of our favorite local railroads, Jerry will do an historical perspective on the Hoosac Tunnel and it's lining towers. He will illustrate some of the lesser-known aspects of constructing the tunnel in northwestern Massachusetts, the original "Big Dig" if you will.

He'll start the journey on the east side, covering some of the methods used in the twenty-four year long project. The tunnel in Boston was a piece of cake compared to the efforts expended on the 4¾ mile Hoosac bore through solid rock by workers without the tools we have today.

He will then cross over Hoosac Mountain showing other locations of interest, such as the deep vertical shafts and the west end portal, with both pictures and story. If you've seen his website you'll know it promises to be a fascinating evening. Come join us for a look back at this truly incredible engineering feat.

The Cambridge School of Weston, provides the following information in case bad weather occurs on a Railfun night. **If the school is closed, we will not have Railfun that evening.** School closings are broadcast over the radio at **WRKO 680AM** and **WBZ 1030AM**, and on **TV Channels 4, 5, and 7**. The school recording is at **781-642-8600**. Check the radio or TV stations early on the morning of Railfun!

TUNE UP FOR 2010

By "The Car Knockers"
8 p.m., January 15, 2010
Cambridge School of Weston
See p. 10 for map to Railfun

Mark Harlow and his merry crew will help us to do those badly needed maintenance chores in a fun setting. The Amherst show is right around the corner and this is a good way to ease back into the swing of things after the holiday season. It's time to trim the tallow lantern wicks, lubricate the bearings and make sure the fan belt hitches up right. We plan to haul a lot of freight so its appropriate we cover the topic for new members and forgetful old ones like me. Regardless of what scale you model, equipment should be checked and maintained to make sure it conforms to standards for trouble free operation.

Fix that dragging coupler pin; re-gauge those boxcar wheels; whatever needs fixing and cleaning should be done. Bring along your equipment, your toolkit and your standards gauge. The maintenance crew will review the check-up procedures and provide tips for keeping your equipment in tip-top shape. There will be multiple work stations so you can focus on what you need the most help in.

We will also have a DCC programming and test track set up so members can learn how to operate the HUB DCC equipment. Even if you are not a member, come see what we're all about, test run model trains and swap a tip or two.

OPERATION ON THE ATLANTIC SHOALS & DIVIDING CREEK

By Carl Senftleben & Don Howd
8 p.m., February 19, 2010
Cambridge School of Weston
See p. 10 for map to Railfun

Every so often we like to remind our modelers that the hobby is not just about building models but about railroading in general, and that includes the operational aspects. The very first Railfun was presented by Bill Borelli and Carl Senftleben and dealt with the prototypical operations on Bill's home layout. Bill has since passed on but Carl and a whole new generation of model railroaders are enjoying the operational aspects of the hobby and making friends doing it.

Carl and Don are part of the Broken and Mangle Operators (<http://www.bmoperators.com/>) who regularly schedule operating sessions in the North Shore area and whose layouts are open to the public during the Tour de Chooch. Carl's MBTA experience, including responsibilities for rail transit service on the North Shore, make him a wonderful resource for rail service history and for model railroading operations. Don is a consummate modeler with a soft spot for the Rutland and our representative for the Achievement Program. They have been away from our meetings far too long so let's welcome them both back to speak on prototype operations on their railroads.

The President's Car

by Dick Johannes

We've already presented our first two modular displays and our first Railfun of the season. Norwood Day, which supports a compact linear setup, was our first modular display, and Edaville featured our typical double-track mainline with yards. The short clinic format at this year's first Railfun and was again a hit, including remarkably diverse clinics from weathering techniques to electronics to a marvelous picture trip to upstate New York.

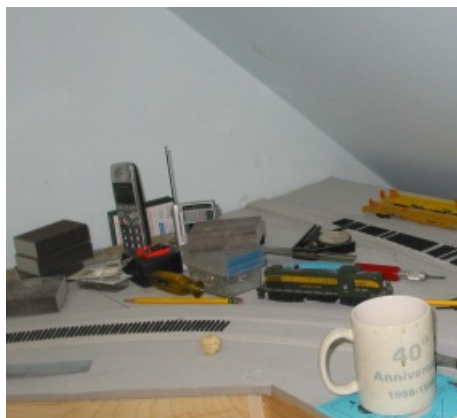
It will be no time flat until our December show is upon us. I ask all our members to please consider donating 2-4 hours on each day to help us put on the Marlborough Show. **Mark Harlow** is coordinating volunteer efforts again, so please contact him if you're available. **Jerry McDonald** told me we may be a little ahead of schedule for the table and vendor sign-ups and we've got a full slate of operating railroads, including the return of the European group, who couldn't make it last year. It should be a great show!

I want to cover another highlight from the Hartford National. Thirteen modelers registered as new HUB members and several showed up at the first Railfun night. Welcome to all of you, we'll try to make your decision to join the NMRA a good one and hopefully a long term one.

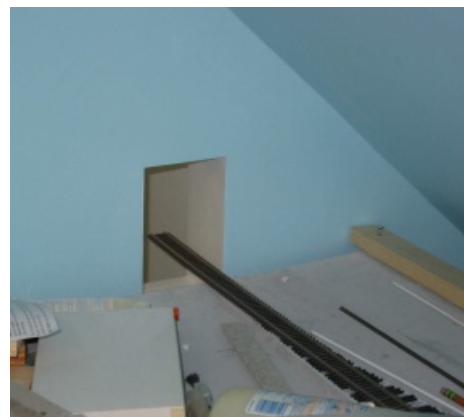
It's funny how one's interests and focus can shift in model railroading. For about 2-3 years, I spent time trying to acquire Mike Rose's skills for re-stenciling and weathering modern freight cars. I've still got some skill building to go, but technology has caught me again and I'm starting to learn and think a lot about signaling systems. I added

some operating two- and three-headed searchlight signals to my module for the Hartford National. Signaling is a remarkably complex and often expensive task for the both the modeler and the prototype. Ask MMR, HUB Board member and MBTA engineer **Pete Watson** if you doubt my assertion. Not only are physical signals different types, G-Type, color-light (US&S), color-position (B&O), position-light (PRR), searchlight and semaphores (upper and lower quadrant) to name a few, but also the aspect definitions vary widely across railroads. I just finished Brian Soloman's book, *Railroad Signaling*, which abounds with prototypical information and superior lithography. It presents the issues well from an historical perspective. I may have more to say on this subject in upcoming installments.

I've been making progress on my home layout. However, I did have a bit of a delay. The original plan called for a "dummy interchange" with a track to nowhere. After looking at it repeatedly, I thought about building a tunnel through the wall into the adjacent workroom for a staging facility and "true" Selkirk destination. **Peter Watson, Jack Alexander** and **Ken Belovarac** convinced me this was easy and straightforward. Then, after a protracted negotiation for trackage rights with my wife Kay, I was clear



to give it a try. Our house is 140 years old with horsehair plaster in most rooms. Well, now I have a Hole-in-the-Wall but I'm not sure I've ever made a bigger mess in my life. In the spirit of Murphy's Law, there was a stud in line with the mainline, necessitating moving the mainline a scale 18 ft, 3 in to the south. I can now run and operate one segment of the railroad that includes my treatments of Rigby



Yard, Ayer, and now Selkirk.

One final comment regarding whether to ballast before or after laying the rail when you hand-lay track. Experts disagree on this. I think the best way is to ballast after laying the rail. Jim Mansfield, in his chapter in the Kalmbach book, *Trackwork and Lineside Detail for your Model Railroad*, coined a wonderful term: let the track *breathe* for a while. Ballast and whatever you choose for an adhesive will fix the final track/rail position. Jim's point is that it's a good idea to allow the track a few weeks (I'd suggest you take a few months) to breathe and (pun intended) get the kinks out before cementing the track into final place with ballasting. This also gives you time to fine tune the track plan by operating on it and tweaking its design before those small adjustments require much more pain and effort.

Keep 'em rolling

Annual Holiday Party and Yankee Swap

Saturday, January 2, 2010
The Common Market Restaurant
97 Willard Street, Quincy, MA

Your reservations must be accompanied by your payment in the amount of \$40.00 per person. To receive this price, your reservation must be received by **Monday, December 28, 2009**. No walk-ins. All food is pre-ordered and all seating spaces are reserved. Bring a gift worth at least \$15 if you want to participate in the Yankee Swap.

After the cutoff date, reservations will be accepted at the rate of \$45.00 per person up to **two days** before the event. Please take advantage of the discount and mail your reservation with payment early.

For information, contact Gerry Covino at Treasurer@hubdiv.org.

Social Hour 6:30 PM

Dinner is preceded by hors d'oeuvres and cash bar

**Stuffed Mushrooms and Crab Meat
Scallops Wrapped in Bacon
Cheese, Fruit and Crackers**

Dinner 7:30 PM

Buffet Dinner Menu

Baked Stuffed Haddock

Chicken Marsala

Sliced Roast Beef

Pasta Marinara

Rice of the Day

Seasonal Vegetables

Tossed Salad or Caesar Salad

Rolls & Butter

Coffee & Tea

Ice Cream Pie with Fudge Sauce

A convenient reservation form is included on page 11.

Hub Division Picnic

The Hub Division picnic at Peter Watson's home last August was a tremendous success. Rick Murray brought the cake. Photo by John Lutz.



Hub Division Calendar

Upcoming Events (See below for Module Group)

Subject to change; check www.hubdiv.org for updates

2009

Fri	Nov. 20	Railfun, 8 PM, Cambridge School of Weston
Tue	Dec. 1	Deadline for submissions to Jan.-Feb. <i>Headlight</i>
Sa/Su	Dec. 5-6	HUB Fall Show: New England Train Expo The Best Western Royal Plaza Trade Center, Marlborough

2010

Sat	Jan. 2	HUB Holiday Party
Fri	Jan. 15	Railfun, 8 PM, Cambridge School of Weston
Mon	Feb. 1	Deadline for submissions to Mar.-Apr. <i>Headlight</i>
Fri	Feb. 19	Railfun, 8 PM, Cambridge School of Weston
Sat	Mar 13	HUB Spring TRAINING Event, Holiday Inn, Peabody, followed by Annual Meeting at 5 p.m.
Fri	Mar. 19	Railfun, 8 PM, Cambridge School of Weston
Thu	Apr. 1	Deadline for submissions to May-June <i>Headlight</i>
Fri	Apr. 16	Railfun, 8 PM, Cambridge School of Weston
Th-Su	May 20-23	NER Convention, St. Johns, NB, Canada
Fri	May 21	Railfun, 8 PM, Cambridge School of Weston
Fri	June 18	Railfun, 8 PM, Cambridge School of Weston

Module Group Shows

Contact Jeff Gerow at

ModularRRsuperintendent@hubdiv.org for more information

2009

Sa-Su	Nov 21-22	Greenberg Show, Shriner's Auditorium, Wilmington
Sa-Su	Dec 5-6	HUB Fall Show: New England Train Expo, Marlborough
Sa-Su	Dec 12-13	National Heritage Museum, Lexington

2010

Sa-Su	Jan 30-31	Amherst Railway Society Show, West Springfield
Sun	Mar 7	Mystic Valley Railway Society's Rail-a-Rama XLII at Christina's Function Facility, Foxboro
Sat	Mar 13	HUB Spring Event: Spring TRAINING, Peabody
Sa-Su	Mar 27-28	Greenberg Show, Shriner's Auditorium, Wilmington
Th-Su	May 20-23	NER Convention, St. Johns, NB, Canada



Shanty Talk

By Rudy Slovacek

In less than 24 hours the temperature dropped from a balmy high 60's to the low 40's and I was forced to switch from my short sleeve garb to a long sleeve shirt and jacket on my way to work in the early morning. Yep, October weather has set in and we all know what that means. The fuzzy caterpillars are looking to winter over, the squirrels are storing nuts and the crickets have stopped chirping as we wake up each morning to an ever brightening pallet of colors that Jack Frost has bestowed upon the foliage during the night hours. I dunno, it sounds much better than saying "We had a frost." Speaking of change, our editor has put my new "shanty" picture up on this column. It is a true restored watchman's shanty for the crossing guard in the days when D&H steam locomotives ran through downtown Saratoga. It has been plunked down in the middle of town where the tracks used to run. The station has been long torn down and the mainline is now relocated west of town. Being of the mind, this past summer, that if one stands near rails which have a highly polished surface, one might just encounter a train! In fact the beautiful new Saratoga Station sits at the northern most lead to Saratoga Yard so I

headed there on my recent sojourn to visit relatives and the homeland. Well, lo an behold, a northbound CP freight with two grungy looking GE AC4400CW's showed up and was stuck in the hole waiting for the northbound Amtrak train to pass.

As for my modeling interests, my D&H early phase ALCO RS-3 model, whose picture evidently hit *Scale Rails*, is just the tip of the iceberg. This fall I'm working on detailing a sound-equipped Rutland RS-1. With it's distinctive whine and burble of that first generation Alco 539 turbocharged diesel, I was blown away as I pulled a Rutland milk train up to one of the platforms on my home collection of modules. While I never did get to see one in operation on either the Rutland or NYC, which are connecting roads for my D&H, I fell in love with the Green Mountain RS-1 number 405. I encountered it in tourist train service out of Bellows Falls. Besides the former B&M Alco S-2 (or is it S-4?) which the Hobo Railroad still runs, I know of several locations in upstate New York and Vermont where you'll find virtually every major model and engine type produced by Alco; and the clincher is, they're still in service! Some of you've heard my ramblings about the 539, 244 and 251 ALCO engine designations....

Fall is also the beginning of our

Model Railroading season, when we all start thinking of things to do indoors that involve our favorite pastime. We had a fantastic first Railfun in September with more than 36 members (old and new) showing up to hear seven different mini-clinics on a variety of topics. They ranged from electronic gizmos, some neat trip photos, scratch building skills and how to make weathering materials from ash. (You know, the powdery stuff they used to dump from the firebox grates of steam locomotives.) To me it was great to see so many members still interested in the hobby and in learning a thing or two. It was one of our more well attended nights and I hope the trend will continue.

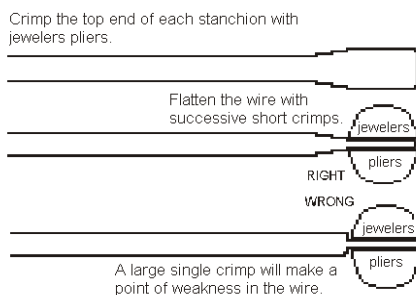
For me the fall season is always one of heightened activity and you can see from the Railfun lineup we'll have a number of clinicians who are probably new to most of you. I try to do something different each year so this season so we'll have, what amounts to, five new faces giving clinics at Railfun. Read on and stay tuned as I'm not giving them all away just yet. Also plan to participate in not just one but as many HUB events as you can. Well I've got to go, the whistle is blowing and the train is pulling out of the station. I need to grab my sign from the "shanty" wall and flag traffic at the crossing!



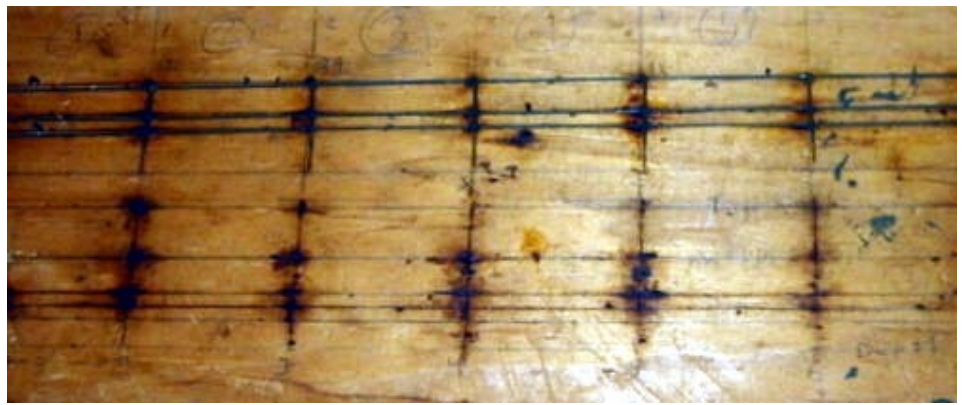
Stair and Station Railings

By John Barrington

Safety railings along the edges of platforms and stairs are important details that are often left off models. I built railings from wire to fit my models. First, I drew a diagram of the railing on a pine board I used as a template. I put railings at one-, three-, and five feet above the platform and extended stanchions a foot below the platform. I spaced the stanchions 12' apart. I made the end stanchions and the top rail all out of a single piece of wire, curved at the corners. I used track spikes to hold this piece in place on the template. Next, I crimped the top end of each stanchion flat with jeweler's pliers and then twisted the flattened end into a loop using jeweler's pliers, for attaching to the top rail. I left the loop open so I could snap it over the railing and then tighten it, using needle-nose pliers with knurled jaws. Here is a caution about flattening the tops of the stanchions:



I attached the stanchions to the top rail on the side of the railings away from the platform. I held the wires to the template with three or more spikes per railing and three per stanchion. Then I adjusted everything on the template so that the wires were touching at all intersections, to ensure good solder joints. I applied solder flux to all joints and soldered the stanchions to the railings using a pencil soldering iron and silver-bearing solder. I trimmed the bottoms of the



stanchions, allowing 1 scale foot to be embedded in the platform.

To paint the railings, I cut the paint to a runny consistency. Use a small brush. After the first coat, I covered any shiny places I had missed. I hung the railing by an alligator clip for the paint to dry. I applied a second coat the next day, checking carefully to make sure all the shiny wire was covered. Some places required a third coat. After the paint dried, I placed its "feet" on the platform, near its edge, to find the hole spacings. I ground a chisel point on the end of a common pin and put it in a pin vise to drill the holes. I drilled the holes one at a time, putting the ends of the stanchions in the prior holes to determine the placement of the next hole. Some holes had to be enlarged; I used a small dental drill bit for these.

After you complete a railing or two, your technique will improve and the job will go faster. At Springfield (2009), the railings blended in nicely with the rest of the station and prevented the station platforms from looking bare.

Materials: Brass or phosphor bronze wire. I used wire diameters of 0.022, 0.025 and 0.028 inches. For HO scale, use 0.022 for up to 2-inch rails and 0.028 to 2.4 inches. Paint adds another scale quarter of an inch. If you don't have enough wire to do all the same thickness, make the top rail and end stanchions thicker.

Paint: I used Pactra dark green matte finish. If you don't have a color picture of a prototype, green or gray should be right for the 1940's, whereas modern railings would be yellow or white. I put on two coats.



John's module at Edaville, showing safety railings. Photo by Diana Walsh.

Do You Need a Test Track?

A.J. Gemperline

At some point during our model railroading ventures we probably ask this question. This is especially true if you do not have a permanent layout, or your present layout does not have a nice long stretch of track to test your locomotive. If you have DCC, you probably want one with the capability of doing both DC and DCC. This also helps to check out some old DC units to see if they are worthy of a DCC decoder.

DCC lets you run multiple units as one unit, but there are still a lot of modelers who do not take advantage of this. This is because a lot of locomotives do not run at the same speed right out of the box, even the same model and manufacturer. Different manufacturers have different gearing that make it difficult to run different makes of model locomotives. I found that the same factory model, with a sound decoder, runs at a substantially different speed than one without a sound decoder. How do we correct this? The most obvious answer is to adjust the CV values in the decoder. This may sound intimidating, but with a decent stretch of track, a good DCC programmer/controller and your DCC manual, you can make any loco run with any other loco.

Adjusting the CV values for starting, mid-range and top speed for a decoder requires some track space. I recommend at least 5 or 6 feet of track, for HO. This would have to be enough to be able to get your locomotive up to full speed and then stop it before it goes flying off the track. I use 10 feet myself. Ideally the track should be straight, without any turnouts or curves. You do not want anything to cause a drop in power or hesitation in the

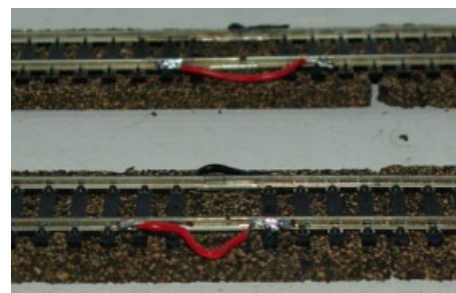
locomotive while it runs on your test track.

You also want a programming track nearby. Even better, a DPDT toggle switch lets your test track double as your programming track. I also went one step further, adding a second track so I could also check DC. This option lets me check some of my older locomotives and determine whether or not they are worth the time and effort needed to add a decoder. If the engine does not run well on DC, it is not going to run well on DCC. I also added a speedometer to help me match speeds more closely.

This is what you will need:

- * Board, 1x 6 inches x 10 ft.
- * Four track bumpers.
- * 6 pieces of flex track.
- * 2 Atlas re-railers.
- * 2 DPDT switches.
- * 2 small and 1 medium size plastic project box available from Radio Shack.
- * One speedometer (see www.trainsspeed.com, also available through Greenway Products).
- * Two spools of wire, each spool a different color to keep wiring straightforward.
- * 3 L brackets (optional) to mount track to wall.

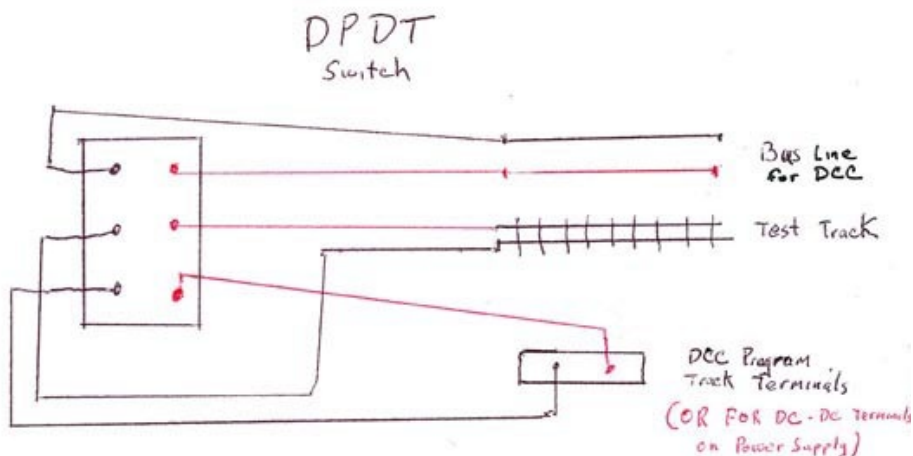
The board and brackets cost under \$20 at your local lumber store, The track, bumpers and wire cost



another \$20, and the speedometer is about \$60. So figure about \$100 for this, give or take, depending if you have some track and wire already.

First, tack down the track. Place the rerailers where you will place locomotives on the track. I make sure the bumpers are securely held in position at each end. To ensure good electrical connectivity, solder small pieces of wire on the outside of each rail to connect each section of track. Leave slack in the wire to allow for expansion and contraction. Take a wire lead from each rail and connect it to a terminal block.

Once the track is laid and the bumpers securely placed, determine where you want to place the speedometer. The speedometer needs two holes drilled in the track for the optical sensors. There is a guide in the speedometer instructions that tells you how far apart the speedometer's sensors need to be. I used a 5/32 drill bit and some electrical tape to hold the sensors in place. When you place the sensors, follow the instructions, especially





The DCC Program/Run switch.

with regard to light sources. It is important that you have good overhead lighting. Place the sensors where you will have time to get to full speed and stop safely.

A DPDT switch has three pairs of connections for wiring. There are a couple of things you want to remember: 1) The test track should be connected to the middle position. 2) Polarity must be consistent to prevent shorts. 3) Connect wires to the **top** connections to route power when the toggle is in the **down** position. If you are using a project box, drill the appropriate holes in the box.

After you connect the test track to the middle positions, run two wires to the programming terminals on your DCC command station and two wires to your DCC bus wire. I recommend soldering your connections to the toggle switch.

Once the connections are done you can test your track. If you use the program track make sure the toggle is set in the program track



The second track has DC or DCC capability.

position. After you are done with the programming you can flip the toggle to regular DCC and run your locomotive in regular DCC mode, without having to move the locomotive.

If you do not have a desire to test DC locomotives, then skip this part. I wanted to test DC locomotives, so I wired a second track similarly to the first track. The track leads went into the center position of a second DPDT switch. Of the other two pairs of connections, one went to the DCC bus, and the other went to a power pack's DC terminals.

The advantage of having this second track is to test your old DC locomotives. Another advantage is that you can test two DCC locomotives side by side. Just put both locomotives in MU or Consist mode and then put one on each track. In MU or Consist mode you will be able to tell if one is faster or if they are close enough for consist.

If you add a speedometer to your test track, you can configure CV's for multiple unit operation. CV's 2, 5 and 6 are used for controlling your speed range. Set CV 2 (start) so that when your throttle is at Step 1 (28 step mode), the loco starts to creep along. Try to adjust it to between 1 and 5 mph. CV 5 (mid) is for setting



Bumpers are securely anchored to keep locomotives from falling off the end.

the mid speed rating. On my freight fleet I adjust it for 32 to 37 scale mph. For passenger units you might want 40 to 45 scale mph. CV6 (max) should be adjusted to 72-77 scale mph. Some manufacturers may not permit faster running than this. My Kato freight units max out around 74 to 75 scale mph. Try to set CV 6 for passenger units at 80 mph.

Even with a speedometer it may take some tinkering to match up consists. You will get the hang of it. The hardest time I ever had was matching three Proto 2000 GP30's. One had sound the other two did not. The sound unit accelerated faster and had a higher top speed than the non-sound units. But after about an hour of effort, I had all three units matched perfectly.

Once you start using your test track, you will get more enjoyment out of your locomotive fleet. You will get the hang of matching up locomotive speeds. You should also find it easier to run some of your locomotives as helpers in mid or rear train position.

You should keep your test track clean for best results. I would not use an abrasive cleaner for the tracks, but instead I would use rubbing alcohol. You do not want to risk scratching the light sensors for the speedometer.

So do you need a test track? It couldn't hurt and it may help you get more enjoyment out of the hobby.

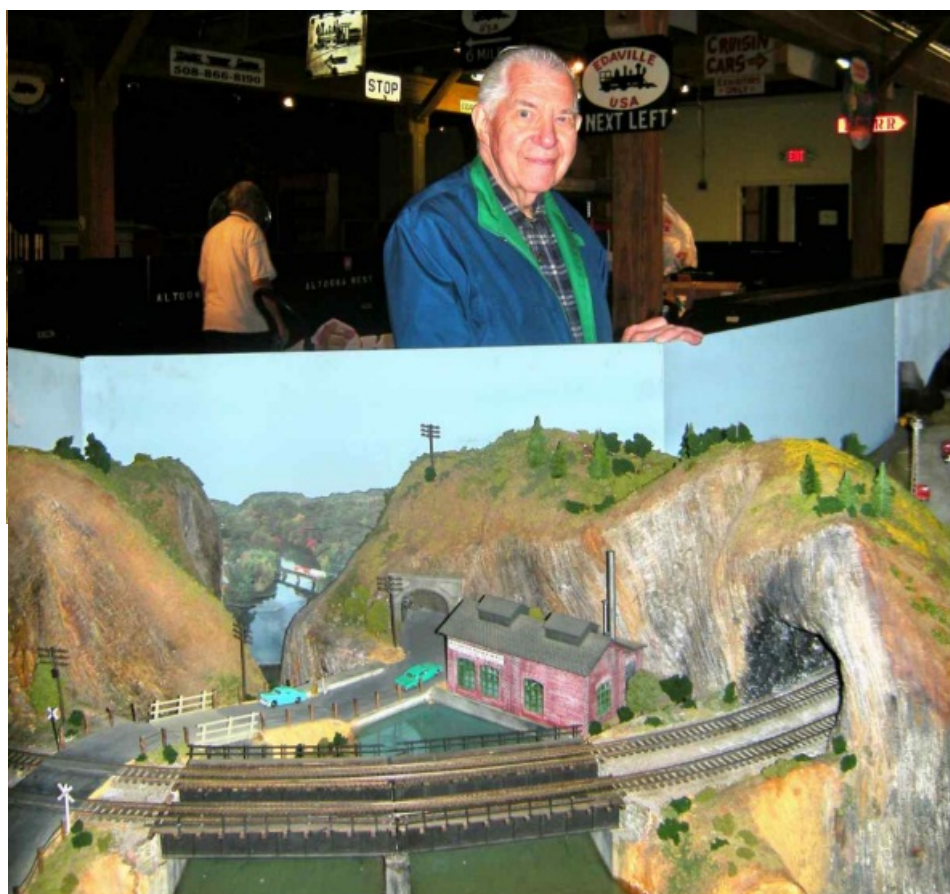
Operating Philosophy for My Mountain Railroad

By Jack Alexander, MMR

The object here is running trains, avoiding problems, and doing so in a prototypical manner. My layout was begun in 1965, with continuous construction and improvements in the ongoing years. These were some considerations I established to warrant trouble-free prototype appearing operation on the railroad. I hand-laid code 100 nickel silver rail on pine ties that I cut on my table saw and stained with a product called screen paint. Many different lengths were cut for switch ties. There were 20 Tru-scale switch kits installed on the 160-foot main line. Number 8's were used on the passing sidings and crossovers, and number 6's on the industrial spurs. All track was super elevated on curves as well as having easements for the 28, 30 1/2 and 33-inch radius curves. All rail has a painted web and base to reduce apparent size. Code 83 was not available when I began construction.

I model 1959, running steam and first- and second-generation diesels. This means that 95% of my freight rolling stock is 40 feet long or less. Shorter cars make a railroad route seem longer, one advantage of this era. Mountain railroading is slow speed. My ruling grade is 2 1/2% up and around Fireweed Mountain, sort of a Tehachapi Loop effect. I have stood at SP's loop by Tunnel 9, in the 1970's and watched 12 locomotives in 4 unit sets, drag over 100 cars at 6 to 8 miles per hour up the hill. It's thrilling to see and I endeavor to reproduce this to some degree.

A typical local or through freight, running between my two main terminals, Red Lodge and Silver Gate, Montana, might consist of up to 32 cars with 3 or 4 engines



Jack Alexander operated his circus train at the Edaville Cranberry Festival this year. Photos by Diana Walsh.

and a single pusher at the rear. This works very well and is about the limit for my passing sidings. I rate my locomotives by their speed. The diesels are a mixture of Atlas, Atlas-Kato, Proto 2000 and Broadway Ltd. A few are slow, many medium, and many which I call fast. I typically assign 3 or 4 fast locos on the head end with a medium rated helper at the rear. In this manner I have avoided string lining or buckling of train cars. My ore train hauls copper ore from the mine to the concentrator for grinding, and often uses double-headed 2-6-6-2 mallets on the point and a third one pushing 32 cars from behind the caboose.

My railroad, the Intermountain Pacific, serves the town of Cooke City, Montana, which is near the northeastern entrance to Yellowstone National Park. We

typically operate a ten-car train from Northern Pacific's North Coast Limited station stop at Laurel, MT, to Cooke City. This train, "The Bison" consists of a baggage car or combine, 2 coaches, 3 domes, a diner, 2 sleepers, and an observation. These are old O K aluminum full-length reproductions of Budd creations. They all run on Central Valley 4-wheel sprung trucks with metal wheels. They just glide around the many curves, pulled by Proto 2000 ABBA Alco F units. Several of these cars are quite heavy with metal seats and a number of passengers inside. I'm amazed that the engines can pull them up the grades. Here again, I run them at relatively slow speed for a passenger train. Things work differently in mountain country. I remember riding the cab of D&RGW's California Zephyr west up the Front



Range in 1968, when the engineer told me he had one dead unit out of five and could only do 24 mph on that continuous grade up to Moffat, rather than the posted 30.

Equipment can be finicky. I use extra care in checking trucks and couplers. I only use Kadee's. Their metal shanks never break. Plastic ones will break under load and are more apt to ride up over the next coupler. I always check coupler height with their gauge. I find it wise to raise the uncoupling pin a bit higher than the gauge indicates, to avoid snags on turnouts and ramps. I do use ramps in some spots on the mainline and rarely have a train part. I use Kadee No. 4's on all 75 of my MDC ore cars. It is neat to see the slack run out on a 32-car train. Another thing to avoid is truck-mounted couplers; they are a disaster when backing up.

When it comes to trucks, I replace all plastic wheels and prefer metal side frames since they add weight down low. My cars mostly exceed NMRA suggested weight, they are typically 3 1/2 to 5 ounces, but not to worry, I have no dummy locomotives in my fleet. Before any car goes on the railroad, it gets its trucks and couplers checked out. The NMRA gauge is mandatory for avoiding trouble. It's so easy to check the wheel gauge. I often have had to file the truck bolster of older cars to remove a slight irregularity. Centerline mounting of the trucks is critical for good tracking and

sometimes sprung trucks have a weak spring, which will affect operation. I have a 20-foot long circus train (16 flats and 4 high cars) that I sometimes run over the line. It shows me where the track needs maintenance..

So, all in all, it takes diligence and care to get to the point where a derailment is rare. I rarely clean my rails. Every so often I find a locomotive that needs its wheels cleaned. I use a TV tuner spray on a small rag laid over the rails and run the engine up on the wet rag. It's amazing how much black gunk is deposited. This cleaning product gets spread around the layout and, for a few days, it reduces the pulling power of all equipment.

Good operation is not just the result of assiduous car maintenance, but also of careful right-of-way planning and construction. I believe that the easements contribute in a large measure to why my 85-foot passenger cars slide gracefully around my curves. The

superelevation is just for eye appeal. Before building my layout I first drywalled the ceiling and later carpeted the concrete floor to keep dust under control.

I was prompted to write this article as a result of a NMRA *Scale Rails* piece by Tom Harris, whose Lakeside Lines runs long trains with success, using DCC. My Intermountain Pacific Railroad is a DC operation, but I find no problems running head end and pusher locos on the same throttle if care is used in selecting appropriate power. My route is very undulating, up and down grade and through 10 tunnels. Only about 15 feet of the main line is level. My freight trains are not especially set up, but represent the challenges of car card operation, unless they originate from the staging yard, which can allow for several pre-blocked trains.

I hope that you are having as much pleasure as I am from the hobby. It is wonderful relaxation, and educational as well.

Fall Show Call for Helpers

Hub Division hosts the New England Model Train EXPO on December 5 & 6. Call Mark Harlow (508) 528-8587 or send an email to him at pennsy1954@yahoo.com and volunteer for both days. You may request assignments at the white elephant table, membership table build a car kit, or the door.

The *Headlight* is accepting paid ads from model train stores, individuals who provide services to modelers, and others who support Hub Division activities. Contact Manny Escobar at HubBoard1@hubdiv.org for info.

The Worcester Model Railroaders, Inc., one of the oldest Model Railroad Clubs on the east coast, is holding its annual show and sale at the Auburn Elks, 754 Southbridge St, (Route 12), Auburn, MA on February 28, 2010 from 10 AM to 3:30 PM. The Amherst Modular Club will have one of their layouts on display. Admission \$5, children under 12, (with adult) free.

An open house at their new club quarters will be held on the same day from 10 AM to 3 PM at the Stevens Linen Complex, 137 Schofield Ave., (Route 12) Dudley, MA. The club's 43 x 51 foot HO scale operating layout depicts the Boston & Albany line from Boston to Springfield with a branch line into Rhode Island and Connecticut. Visitors will be able to observe club members operating steam and diesel trains and to operate trains themselves. Handicapped accessible. Admission/donation \$2, children under 12 (with adult) free. Free with show stamp. For further information and directions: pjsmithross@aol.com, www.wmrr.org

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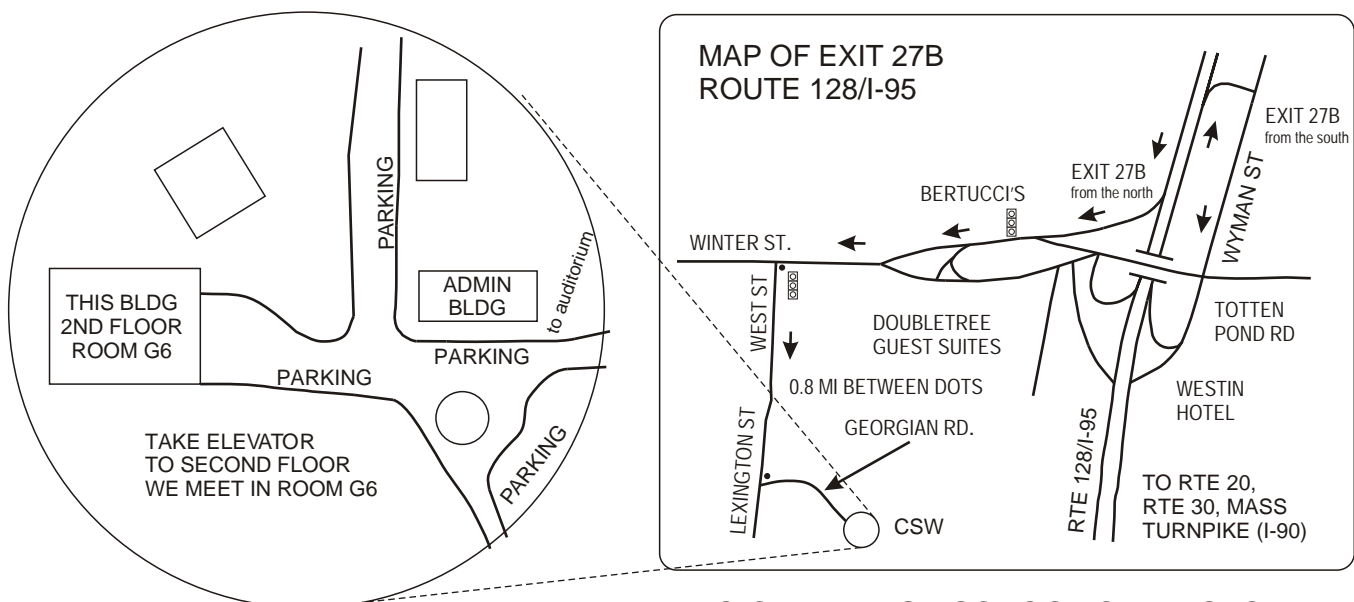
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Submissions to Headlight
By Rich Pitter, Editor

Deadlines for *Headlight* submissions are the first of August, October, December, February, and April. Late submissions may miss the train.

Submit articles in .doc or .txt format and send photos as separate .jpg file attachments with an accompanying captions file. Please do not embed photos in your .doc file. Submission of .pdf files is not recommended but .tif files will be considered if warranted.

Headlight publishes railroading and modeling articles and photographs submitted by Hub Division members. Submissions by nonmembers are welcome.
I welcome your articles and inquiries at Editor@hubdiv.org.