



Solo DCC Operations



DCC Impulses Column

by Bruce Petrarca

photos and video by the author

Confessions of a Lone-Wolf DCC Operator

Why are folks lone-wolves? The reasons are as varied as the individuals. Here is one story.

I am a Lone-Wolf DCC Operator, at least in my home at this point. I don't want you to feel sorry for me, I'm writing this column so that you can understand why someone would have DCC on a layout operated by one person.

There are a lot of statements of "fact" in this column that really are my opinions. Yours may differ. Feel free to share the on the MRH blog by clicking on the Reader Feedback link above.

Understand, I do operate on other folks' layouts. The PebbleCreek Model Railroad Club (<http://pcmrc.org>) operates a couple of times a month. Some of the folks that have participated in Desert Ops weekends (<http://desertops.org/overview.html>) have me over to operate, too.

So I'm not anti-social, I just don't have a setting for multiple operators at this point in the evolution of my pikes. But I wouldn't give up DCC control on them for the world, even when I'm by myself! And I'm here to tell you why.

First, let me tell you about my two layouts.

My workshop is in the closet of the bedroom than is planned to be an HO model of the Santa Maria (California) Valley Railroad (<http://www.smvrr.com>), as it ran in early 1962. Why then? Because they retired their last steam loco in February 1962 and I want to have at least one steamer. I have a basic operation scenario worked out. I am working on a floorplan which will allow room underneath the benchwork for my computer, some storage, etc. This space is necessary to support my workshop. Soon I'm hoping to start on the bench work.



1: Shelf layout sitting on cabinets

When I owned Litchfield Station, I built a small (8-1/2 x 1 foot) shelf layout (<http://www.mrdccu.com/layouts/LitStn/westvalleyviewarticle.pdf>) that is basically a Time-Saver with an added arrival/departure track. That blue-foam-based-layout now rests atop a couple of cabinets along one wall in the “train room”. That's it, for now. Yes, you have seen some shots from this layout in several of my columns. You can follow progress on my blog (<http://www.mrdccu.com/layouts/SMVRR>).

In the back yard there is a start on a southwestern Colorado narrow gauge pike, called the Rocky Mountain Pacific – RMP. You can follow my progress on this layout on my blog, too (<http://www.mrdccu.com/layouts/RMP>).

While these layouts are planned to support a few operators when they are finished, they aren't yet ready for prime time or multiple operators. So, I'm a Lone-Wolf, for now.

My plan for many years on the RMP is to use DCC control with hybrid drive. Toward that end, I have an 10-amp NCE PowerHouse Pro radio system.



2: The Rocky Mountain Pacific (RMP) under construction in my backyard

I have been an advocate for DCC since I got into model railroading almost 15 years ago. Since my background is electronics, sound and radio, it was a natural fit. However, I feel that there is a lot there for even non-technical folks. That's my reason for this column. If you find something here that makes sense, then perhaps you will consider the plunge now or in the future.

DCC in the garden

During construction, I don't get to run DCC on the RMP all the time. I'm using both a DC power-pack and the DCC system in the shakedown process. Whenever I need to run on DC, I remember what it was like before DCC.

- The the tethered power pack means that I need to be in a fixed location to control my loco.
- Some of the locos respond to the LGB in-track magnets by whistling or ringing their bell in the specific location where the magnet is installed.
- Fine tuning a section of track involves a lot of my running back and forth or extension cords to bring power to the test location.
- DC only lets me have one loco in each power district at any given time.

Over and over, this reminds me why wireless control is such an important part of having fun with your trains in the garden.



3: Aligning track on the RMP - helps to have DCC connected to test!

When I'm able to run the DCC locos again, I feel so free. There are no cables. I can control the loco from wherever I wish. This makes it easier to adjust track-work or align things. I can ring the bell or blow the whistle whenever I wish, for however long I desire. Lights are of constant brilliance and controlled by the DCC system.

Okay, I hear you say, it makes sense in the garden, but why do you bother with DCC on a small shelf layout?

DCC on the shelf

Here's a bit about why I run DCC on the shelf.

This may not be a startling revelation to you, but short shelf layouts tend to be switching puzzles, not huge mainline running operations. This is where DCC shines.

LOW SPEED CONTROL: DCC allows you, perhaps with a bit of practice, to make precision couplings, reversals and spottings. Some decoder adjustment may be required, but you can usually get your locos to start moving with very little throttle.

LIMIT TOP SPEED: With DCC, you can pre-determine the maximum speed of every loco individually. This is very useful on a switching layout like mine or for yard locos. When you limit the top speed of a loco to 20 scale miles per hour (SMPH), for example,

you expand the control range. Now you run from 0- 20 SMPH, vs. 0-100 SMPH. Two advantages: increased loco speed control and locos cannot run at "warp speed".



4: Details of shelf layout

STOP ANYWHERE: You don't have to design stopping blocks into your layout. There is no need for track shutoff switches, making operations easier and construction quicker. With no shutoff switches, a guest, no matter how rare, doesn't need to be trained to the layout. Larger layouts do need districts for troubleshooting, but that discussion is beyond this column. I don't often run a second loco on the layout, but, since I use DCC, I am able to do so with impunity.

SOUND: Sound is fun. I've said it for years, "DCC sells sound and sound sells DCC". If you have a road through your layout, you can decide if it is necessary to blow for the grade crossing(s) or not. When you are in the yard, you can decide when and where the bell is needed, even on a whim. It's your pike, you make the rules. The sound of the loco shuttling back and forth makes solo operating less lonely. If you have a larger solo pike than mine, you might want to have one train running in circles while you are switching

on another. Sound helps you continuously monitor the other train and, if needed, DCC provides quick control of it.



5: Two locos on shelf layout

NO CORD: Radio allows me to run my pike and not trip over a cord. Remember, my current layout is a light weight blue-foam-on-small-wood endeavor sitting on top of some cabinets. If I were to snag a cord, I could easily pull the whole shebang off the cabinets. Using radio allows me to avoid that pitfall. Besides, it is more fun not worrying about the wires. If I didn't already have the radio for the garden, would I spend the extra bucks to have it on my simple shelf layout? Probably not. I'd screw the layout to the wall to prevent disaster and move on. However, my long term plans are for a two to three operator layout. Since later I want radio, it makes sense to have radio for the shelf layout now.



6: Bruce running on shelf layout with radio throttle

So, that's why I'm a Lone-Wolf DCC operator, at this juncture. By the way, did I mention that I like the sounds?

In this month's From *Mr. DCC's Workbench*, I share how I expanded operations on my small shelf layout to make it more fun. Stay tuned for that.

If you liked this column, please click on the Reader Feedback link here and rate it **awesome**. Please join in the conversation that invariably develops there about the topics presented in the column. Share your experiences. Thanks.

Until next month, I wish you green boards.

From Mr. DCC's Workbench

Making your small layout run bigger

I'm enjoying some limited operations on the HO shelf layout discussed in this month's column. However, initially it was frustrating because I couldn't do all that I wished to bring a session full circle. I'm going introduce you to an operations tool that I have used to increase the fun on my SMVRR shelf layout.

There are three geographically different areas that the Santa Maria Valley Railroad served:

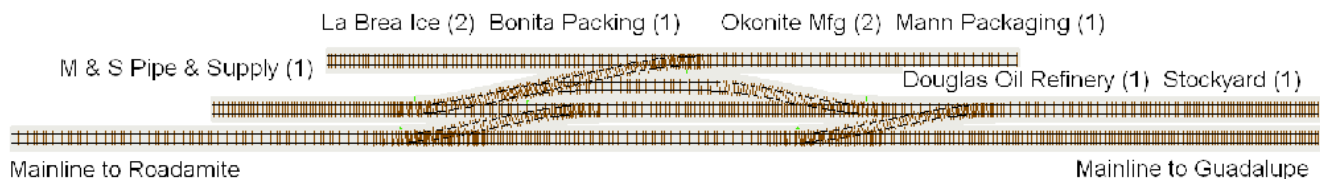
- The Southern Pacific (SP) interchange and yard in Guadalupe on the west
- Industries throughout the valley
- The oil fields at Roadamite in the hills 12 miles to the east

I started operations by setting up my shelf layout to represent the industries in town. That didn't have the realism of handling tankers coming from Roadamite to the refinery and out to the world (the original reason for the railroad). With the limited space, modeling of the Guadalupe interchange consisted of a single track with no run-around or yard track.

So, one day I got the idea for Dynamic Track Allocation. Sounds complicated, but it's not. Let's look at a session, using this method, that takes about an hour.

The engineer goes on duty in the center of the railroad – the original model. He services the industries. The tracks are allocated as shown in figure 7. By the way, the numbers after a location are the quantity of cars that can be spotted there. If there is a set-out for the M&S Pipe, it needs to be off-spot just now.

Santa Maria

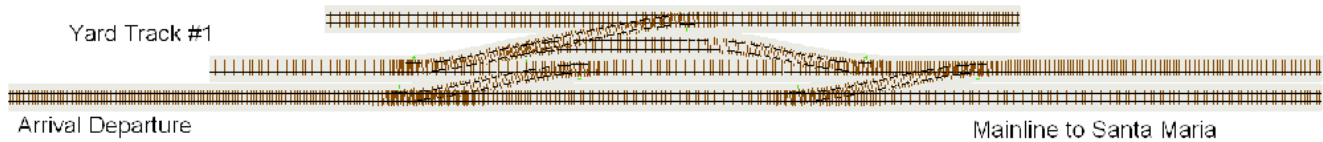


7: The Santa Maria track allocation

While servicing Santa Maria, there will, no doubt, be cars for Roadamite and Guadalupe. These cars are placed on the front where labeled. Next comes the run to Roadamite with empty tanks and cars hauling supplies. This is modeled by moving the cars being held on the "To Roadamite" section as far to the right as can be achieved with the loco on their left. Remember, there may be cars spotted at the industries and on the "To Guadalupe" tracks. The run to Roadamite (about 1/2 hour at prototype speed) can be simulated by

leaving the made up train and taking a break. After the break, the train is deemed to have arrived in Roadamite and the tracks take on new faces as shown in figure 8.

Roadamite

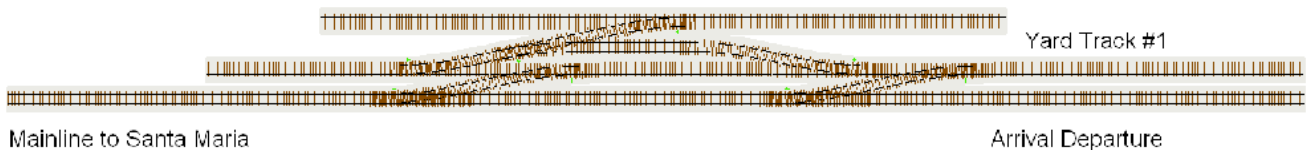


8: The Roadamite track allocation

Note that the track layout is the same, just with some new labels. The Yard Track will be needed to shuffle cars – that is the reason for the M& S Pipe traffic being off-spotted previously. A run-around is needed to get the loco on the west (right) end of the train. Once empties are spotted on the A/D track and loaded cars are attached to the loco, it is time to head back to Santa Maria, where the track definitions revert to those in figure 7. Time for another short break while this run is made.

Once in Santa Maria, off-spots are cleared, if possible. Any tankers for the refinery are off-spotted. The train for Guadalupe is assembled. The run to Guadalupe is simulated by another pause in the action, perhaps a soda this time?

Guadalupe



9: The Guadalupe track allocation

When the train arrives in Guadalupe, the tracks are designated as shown in figure 9. Notice here there is a conflict between the refinery and stockyard track and the Guadalupe Yard track. Any cars spotted at the refinery or stock yard are moved to some available space, if the yard track is needed for moves in Guadalupe.

Once the interchange cars are spotted on the A/D track and the loco is in the center of the layout, the future of the outbound cars is in the hands of the SP. That future consists of removing and replacing some cars and flipping waybills on others. Once the SP finishes its work, there is a new consist to pull back to Santa Maria, ready to spot any off-spot cars and start over servicing the industries.

Changing the identification of physical tracks can make a small layout play bigger. I have these three track plans printed on a single sheet of paper and posted above the layout as a reminder.