

Operations 101

A guide to surviving your first operating session

By Craig Bisgeier

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Okay, you have been invited to operate on someone's layout and don't want to make a fool of yourself. Here are some simple rules you should follow to get through the session and still manage to get invited back for a second time.

Arriving at the railroad:

First and foremost remember that (most of the time) you are a guest in someone's home. Be polite, ask questions if you need to but don't be a pest. Don't criticize the house, the layout or the owners' wife. Act as though you were visiting a respected member of your community. Observe common sense practices.

Take scope of things around you. Some owners keep a cooler or fridge with drinks in it, and/or a bowl or two with pretzels or nuts. Some of them also have a basket asking for donations to help pay for the drinks and snacks. If you take something be sure to put something back into the kitty. Also, some owners allow drinks like beer or coffee. Many do not. Don't ask for a beer if you don't see anyone else drinking one. And unless the owner specifically says it's OK, don't bring a drink or a snack into the layout area. A spilled cup of coffee may cause damage that will take days to repair, or worse.

I know this is a touchy issue, but if you smoke DON'T ASK if you can smoke in the layout room or the house. Just don't do it. Especially if you have to move through the house to get outside, that will surely upset the other family members. Even if the layout has it's own outside entrance, the owners' neighbors probably won't like you loitering outside on the street at night. Have a nail before you go inside and have another on the drive home. Just give it up for a few hours, or slap on a patch or something. Smoking isn't tolerated well anymore, and isn't likely to win you new friends. Do without while you are visiting someone's home.

When it comes to who gets to do what, the jobs are assigned any number of ways. Sometimes the most senior guys get to choose first, other times it is a lottery. Take whatever job is given to you, don't complain. Ask the owner about what is expected, and explain you are new to this if he doesn't already know it. Most often you'll be assigned an easy job with little local work that gets you around the layout so you can see how everything works. No one wants you to fail.

Many layout owners will assign an experienced operator to a new person as a guide to show them around and help them run trains. This is a boon, don't be insulted. It isn't rude or shameful to ask if there's someone who could be a mentor for you, at least for a little while. It is a great opportunity to learn what to do at the hands of someone who knows what they are doing. Don't go out alone if you don't have to, at least at first.

If you do get help, it's likely this person will give you the throttle and he will act as conductor – communicating with a dispatcher, going through the car cards, throwing the switches. Let him, but

watch carefully and ask pertinent questions about what he is doing. If you just merrily twist the throttle knob and watch the train go back and forth, you won't learn much.

Reporting for Duty:

At an operating session you don't just grab a train and go. You are playing the part of a conductor and/or engineer, and just like in real life (IRL) you show up at the yard office and find out what work is being assigned to you. When called, find out what train you are supposed to run and where it originates. This could be a staging yard, a modeled yard, or some other location.

Many times the layout owner will have paperwork prepared that explains what the train is and what it does. It may also list important details like what block or throttle to use, the channel # if the layout has command control, Where the train originates, where it terminates, what towns the train works in, what types of cars it picks up and sets out (more on that later), and more. You can learn a LOT from the train paperwork if it is thoughtfully prepared by the owner.

With the train paperwork you will probably find paperwork for the cars in the train too. (There are many systems to govern the movements of cars on a layout: Switch lists, Tab-On-Car, and Car Card and Waybill. I'm going to discuss the last here since I think it is the most prevalent system out there you'll run into.) This usually takes the form of a stack of cards with small pockets representing the cars in the train, and in the pockets will be slips of paper representing waybills, of what the car is carrying and where it is going.

Collect the train paperwork and the car cards, and find your train. Get a throttle and make sure it is set to the right channel or block assignment. You may need the help of a regular to get this right the first few times.

If your train is in "Staging", it will be in a hidden or visible yard that is supposed to represent an area off the modeled part of the railroad. It probably won't look realistic or even be easy to see. Don't worry; it's not supposed to be. Listen to the other operators about how to properly move your train out of staging. But – don't move it just yet.

Getting over the road:

It's not as simple as twisting the throttle and there you go – there's often much more to it. But it's really very simple – at most railroads it will take some form of a "Mother May I" game. Usually there is a dispatcher. He needs to know where everyone is and what he or she is doing in order to keep things running smoothly. It is really important to do what the dispatcher tells you, and to let him know where you are. There's an old saying:

- ✳ You may know where you are,
- ✳ And God may know where you are;
- ✳ But if the Dispatcher doesn't know where you are,
- ✳ Then I hope You and God are on very good terms.

In brief, this means on a real railroad if you are doing something the dispatcher doesn't know about, there's a good chance you are going to get killed. Model railroading isn't as dangerous, but try to act as though you've got some "skin" in the game. Think three times before doing anything without permission from the dispatcher.

The Dispatcher may be a formal position where a guy sits in a room by himself with a huge panel with hundreds of lights and switches, or it may be the owner who's winging it as he operates his own train. Either way, you need to let him know what you are doing, and you don't do anything unless he tells you to do it.

When you have all your paperwork together, your throttle is plugged in and you are ready to depart, you need to call the dispatcher for permission to move. Check your train paperwork so you know what your train name is, where you are, and which direction you are moving, because the dispatcher will want to know. In a more formal setting, the conversation might go like this:

☀ You: "Train 109 West to Dispatch."

☀ DS: "Go ahead 109."

☀ You: "Train 109 West is at Alphatown and is ready to depart."

☀ DS: "Train 109 West, you have permission to proceed West to Charlestown."

☀ You: "Train 109 West, Proceed West to Charlestown, copy."

What just happened here? You called the dispatcher, identified yourself and where you are going, and the Dispatcher gave you permission to move to the next town. Finally you repeated back the important part of the permission ensuring the dispatcher knows you understood him.

Assuming all else is well, you can now crank up your throttle and start moving your train across the road. Be sure to keep an eye out ahead for switches that might be thrown against you, or lead you off to areas you don't want to go. If it is a DC railroad, be sure to select the right blocks as you proceed, and more importantly turn them off as you leave.

So you are moving along nicely, when you come to Bakerville. What to do here? You have permission to go farther, all the way to Charlestown. But there is a phone here and a little card taped next to it that says, "OS". Better pick up that phone and call the dispatcher.

☀ You: "Train 109 West to Dispatch."

☀ DS: "Go ahead 109."

☀ You: "Train 109 West by Bakerville."

☀ DS: "Thank you, 109 by Bakerville."

OS means "On Station", or "On Sheet". IRL, a station agent would call the dispatcher to let him know that your train had just passed his station. (He would have given the time too.) Since there are no agents on most model railroads, the operators fill this role and call in the OS themselves. The OS report helps the dispatcher know where trains are on the railroad. By OS'ing you help him do his job by clearing up the track behind you, so he can move other trains into that space safely. If you didn't OS he would have to wait until you got to Charlestown before he could use the block between Alphatown and Bakerville again. And he won't be too happy about that.

Also: If the railroad uses radios instead of phones, don't hog up airtime with long, boring descriptions of your train or the problems you are having. It's also not a good time for your Buck Rogers impression. Be professional; speak clearly and to the point. The time for horsing around is at the bull session after the op session is over.

That's basically it for getting over the road. Do what the dispatcher tells you to do, nothing more. Don't keep going past where you have permission even if you can see there's nothing coming the other way. Be sure to OS at stations you passing to help the dispatcher chart your progress. Do these things and you should not have any trouble.

Earning a Day's Pay:

So you are out on the road coming into Bakerville, and you've OS'ed your train to the dispatcher. But let's say you are running a freight train that is expected to do local work. Uh-oh, you start thinking. What do I do? Where do I do it? Relax, I'm going to help you break it down and figure it out.

First, check your train instructions. On many railroads the owner includes a crib sheet that describes what work the train does and where. Sometimes it even offers additional hints about what to do when you are working there. If there's nothing, or not enough information to go on, ASK someone for help. If you don't do the work your train is supposed to you can screw things up for many others as the session goes on. This is known as a cascading failure, where one problem leads to others down the line.

So you determine from your train instructions that you are supposed to make pickups and setouts in Bakerville. What does that mean? First, call the dispatcher back and let him know you'll be working in town for a while. He may tell you it's okay, or that you need to keep a track clear for other traffic. This can sometimes severely limit what you can do – happens all the time IRL too. At some point the traffic will die down and the dispatcher will get you some time to do your work. Don't take it personally – you're getting paid whether you are moving or not, right?

Switching freight in a town means there are cars here that are supposed to come with you (pickups), and some in your train that need to get left here (setouts). Which ones? Well, you determine that by looking at the waybills on the car cards. Start with the cars in your train, the ones you picked up when you got your train instructions. Look for "To:" or "Dest." On the waybill and see if it says "Bakerville". If so, that car needs to come out of the train and get left here. Also check the "Via:" line. Sometimes cars get left places where other railroads interchange, or exchange cars, with each other. This doesn't always happen at yards, and often there is a special interchange track to set these cars out on.

Now look at the cards for the cars in this town. Most often there are bill boxes located on the railroad fascia, or front edge. It may be one large catch-all box, or there might be a box for each industry or track. Look through each bill box to find cars whose "To:" line show they are going your way. You need to get these cars out of their locations and into your train.

It isn't always easy to know if a certain car should go with you (or stay) based on its delivery location. You may not know the local geography – for instance, is Tacoma east or west of the Willamette Valley? People from New Jersey might not know that. It gets more complicated on freelance railroads, like our example – is Alphatown west or east of Chicago? What state is it even in? If the owner is prepared, he has some maps up here and there to help you orient yourself. Or the regular operators and/or the owner can (probably) tell you. Again it is better to ask questions than to simply assume and make mistakes that affect others later.

Another issue is how much work should you do? If you are a local freight train, you will need to pick up cars at local industries, and "Spot", or place cars at the industries they are billed for. But some freights are through or limited freights and may do setouts and pickups to a siding near the mainline only. A local train or switcher comes by at some other time and spots cars locally from the siding, as well as loading it back up with pickups for the next through train. Your train information should tell you this, or ask the owner exactly what should you do.

So now you know which cars to set out and which cars to pick up. Can you get to all of them? Remember, when you leave town all the cars have to be behind you – this means trouble if you have to work a facing-point switch. (Switches are either facing-point or trailing-point to the locomotive. Facing-point switches require the locomotive to move forward into them, which puts the railcars on the wrong end of the train.) Check to see if there is a runaround located in the area. It looks like a small (or large) siding the locomotive can use to "run-around" one or more cars to get them on the other side of the locomotive. Without this you can't switch the facing-point sidings. Try to keep it clear to either side by a few car lengths if you think you will need it.

Here is the best advice I can give you on the subject – you always want to make all of your pickups FIRST at any town, industry or siding. The reason is because it makes space to put the setouts later, and gives you more room to maneuver. Cut off from your train, leaving enough room on the track to store the pickups you are going out to get, and switch over to the local tracks. Try to work efficiently and pick up the specific cars you need to take along. When convenient to do so, you may pull back out to the main and push them onto your train.

Once the pickups are all made, it is time to make the setouts. Go out to the main and grab the cars from your train that are to be left here. If the yardmaster that prepared your train was nice, the cars will be “blocked” together, or in a group, easy to grab and start switching. Like as not though you may have to work your way through the train and switch out the cars one or two at a time. If you have to do this, start from the FAR end of the train, switch the setouts to the local track and keep the pickups and other cars on the main.

Setouts are done the reverse of pickups, determine where each car must go from its waybill and place it in position on the siding. When done, check the car cards and waybills. The Pickups should be in the packet with the others in your train, the setouts should be located in the proper bill boxes on the layout fascia. This is REALLY important, don't skip it. If everything checks out, move back to the main line, couple up to your train, call the dispatcher and let him know you are done working and ready to proceed to the next stop. If you already have permission, go ahead, if not wait for a new permission from the dispatcher.

BTW It's a good idea to keep the stack of waybills in train car order if possible, makes it much easier when trying to switch later on.

Arriving at a Yard:

On most model railroads, you are going to come to a yard at some point. Yards are nexus points, where freight moving in different directions gets “Classified”, or broken up and sorted back into like groups, forming new trains going into new directions. Long-distance trains may only stop briefly, making a quick setout and/or pickup of hot merchandise, or they may not stop at all. The level and type of work you may do in a yard usually depends on the type of train you are running.

Local trains, sometimes called Turns, often originate at a yard, go out to one or more towns or industries and work, and return to the yard at the end of their shift. Through trains usually run between one or more yards and return on the next day. Long distance trains may go for days, changing engines and crews frequently as they travel hundreds of miles.

When a turn arrives back at its origin yard, it terminates there. Depending on the layout, you may simply turn off your throttle and leave it there, or you may be asked to run around your train, get the caboose and store it, and then take your engine to the roundhouse or fuel racks for servicing. Whatever the procedure, be sure to hand your car cards directly to the yardmaster on arrival, he needs them to do his job. Generally the yard crew will start breaking up your train right away to classify the cars as soon as possible; they can't do that without the cards.

A through train may terminate at the yard, or it may continue on to another destination farther down the railroad. A terminating train will be handled as the turn was described earlier. If continuing on, there will sometimes be a group of cars that are to be set out at the yard, and you may be expected to take pickups moving in the same direction you are. When you pull in, either on the main or an arrival / departure track, make sure you don't foul, or block, the switches that allow the yard switcher access to the track you are on. Ask where to stop if you aren't sure.

It's considered good form on arrival to have already looked at your cards and give the yardmaster a heads-up about how many setouts, if any, you think have for him. He will probably want to look over your car cards anyway, let him. That's his job, and he knows the railroad better than you do. Just don't hand him the stack of cards and wander away looking for a soda or a snack. You may not have a lot to do with what comes next, but his job is a hectic one under lots of time pressure and you can be sure he'll complain about the #\$\$*! noob who got lost and left a train idling on *his* mainline for 15 minutes. The dispatcher won't take kindly to this either.

When he is ready, the yardmaster will tell you what to do. Most times, the yard crew is responsible for switching the cars in your train so don't fight with them about it. If the cars are at the front of your train, he will tell you to cut off the locomotive (and maybe a few cars) and pull clear of the switch that lets him get out onto the main track.

Depending on the way the switch faces you may have to pull some ways down the track to give him working room. If the cars are at the rear, and he can get to it, he will come out behind your train, pick off the caboose and start working the train from the back. If they are scattered throughout your train, he will not be happy and you will be there for a while. Probably OK to go look for that soda now. Just make sure you are nearby if he needs you to move your train.

Sometimes a yardmaster may ask you to do a switch move or two – that's fine, just do as you are asked. IRL road crews are not supposed to make switching moves in a yard, but everyone has different rules. Just go with the flow.

Once the work is done, the yardmaster should give you a set of new cards representing any pickups he gave you. Integrate them into the car card stack in train order. (Remember I mentioned keeping the cards in train order? If you didn't you can bet the yardmaster will complain about that too.) Call the dispatcher and let him know the yardmaster is done with you; he will probably give you new permissions to continue on your way.

Tying It All Up :

So you've made it all around the layout, done your setouts and pickups, kept the dispatcher informed of where you were, and had your train worked at a yard. You're almost done, but now you have to help your train move into the great wider world beyond the layout itself. By this I mean staging. Staging is a yard, usually hidden, where trains go 'offstage'. The dispatcher may tell you which track to go into, or the information may be on your train card. Ask if you aren't sure what to do.

Before you head in, check your paperwork to see if there is a limit on the number of cars you can enter staging with. If you are over, speak up! You can bring the session to a halt if your train ends up fouling the staging yard throat. Ideally you should keep an eye out on this, be wary of yardmasters that want to load up your train with cars to clear out their yard (it happens – a lot). You'd better have a place to drop those extra cars before you head into staging, if you are over the limit.

A good rule of thumb is to look ahead and check that there isn't anything in the track already before you head into it. Assuming it is clear, there may be a switch panel to line up the staging track with the entry track, go ahead and line up your track if it is safe to do so (no other trains are moving thru the throat or overhanging a switch). You may need to flip or hold down a cutoff switch to move your train into the track. When it is all the way in, be sure to turn off the cutoff switch, and make sure the end of your train isn't fouling the throat of the yard.

Once the train is safely put to bed, find out where to stash your paperwork (the train card and the car cards). Often there is a hook, box or cubbyhole near the staging yard for completed paperwork. It may be just a catchall, or there may be a specific track number associated with it. Place your

paperwork in the box (or hang it on the hook) where it belongs. Finally, call the dispatcher and let him know the train is tied up (so he knows the yard throat is clear and he can move other trains through it).

Now that your run is through, you should probably try to sign up for another job, if that's permitted. While you wait for the next job to come up, it's a good time to shoot the breeze with other operators or the owner about what just happened, and ask any questions you may have. Or just relax and take part in the conversation. But don't bother or distract other operators while they are working. And check to see if it is OK to 'rail fan' in the layout room while a session is going. Some owners don't permit this, especially when the railroad has tight aisles. Wait until after the session is over to take photos or look at the scenery.

Miller Time:

At the end of a session, many owners like to sit down with their operators and discuss the session, or cars or girls or just about anything. Now is a great time to listen to the other folks and find out what they are like, to ask questions or even do that Buck Rogers imitation you've been holding onto all night. Join in but don't try to dominate the discussion. Always leave them wanting more. Learn if any of the other operators have their own railroad or attend op sessions in the area. You might ask for an invitation there sometime.

When it is time to leave, thank the owner, letting him know you had a really good time and learned a lot. If you want to, ask if you could come to another session sometime. Don't be disappointed if he gives a negative answer, there may not be any openings right now. Give your name and phone number in writing and let him know you'd be willing to take a place on the extra board, in other words to call you if he gets a cancellation and needs someone to fill in. Leave with a smile and a handshake. That will be remembered and will help you get invited back again and again.

Finally here are some things you should never, ever do:

- ✳ Don't show up uninvited
- ✳ Don't bring a guest without asking first
- ✳ Don't show up late, or worse, not show up at all
- ✳ Don't leave early
- ✳ Don't lie; If you break something, be honest and tell the owner
- ✳ Don't leave with car cards, uncoupling tools or train instructions in your pocket
- ✳ Don't be a Monday-morning quarterback
- ✳ Don't touch the models if the owner has asked you not to (use uncoupling pics)
- ✳ Don't race your train around like a slot car
- ✳ Don't tell off-color or ethnic jokes, you never know who someone is married to
- ✳ Don't stink -- take a shower if you need one before going out -- PLEASE!
- ✳ Don't leave with things that don't belong to you!

I hope you have enjoyed this article. If there is enough interest I will write a new one on how to operate a classification yard.