WHEEL REPORT

south mountain division

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SEPTEMBER ZOOM MEETINGS

South Mountain Division MER NMRA is inviting MEMBERS ONLY to scheduled Zoom meetings…

Topic: SMD NMRA **Test Call** 9/11/20 *(Connection option #1; to test your access for future meetings.)*
Time: Sep 11, 2020 07:00 PM Eastern Time *(US and Canada)*

Contact the Division by email to request detailed information on how to join this meeting.
SouthMountainDiv@gmail.com

Topic: SMD NMRA **Test Call** 9/12/20 *(Connection option #2; to test your access for future meetings.)*
Time: Sep 12, 2020 01:00 PM Eastern Time *(US and Canada)*

Contact the Division by email to request detailed information on how to join this meeting.
SouthMountainDiv@gmail.com

Topic: SMD NMRA **September Membership Meeting**
Time: Sep 13, 2020 02:00 PM Eastern Time *(US and Canada)*

Contact the Division by email to request detailed information on how to join this meeting.
SouthMountainDiv@gmail.com

On the cover: Nittany and Bald Eagle EMD GP8 No.1601 crosses the Bald Eagle Creek outside of Lock Haven, PA on 8 August 2020. SMD member David Sweeney captured this bucolic scene while on his new work assignment in Central Pennsylvania.

The *Wheel Report* is the official publication for the South Mountain Division of the NMRA. The newsletter is published three times annually. Please send your letters, articles, and pictures to **SouthMountainDiv@gmail.com**.
2020/21 submission deadlines:
Winter 2020/21……..……………..……..…..November 15
Spring 2021…………………..……………….February 15
Fall 2021……………………………………….August 15

SMD Officers 2019/20

Superintendent:

Alex Polimeni

Assistant Superintendent:

Jerry Skeim

Clerk:

Harvey Heyser III

Paymaster:

Ray Price

Division Achievement Coordinator:

Jane Clarke

Webmaster - smdnmra.org:

Tom Fedor

SMD Advisory Committee:

Pete Clarke

Don Florwick

Bob Johnson

Wheel Report Editor:

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To reach Division officials please email us at:

SouthMountainDiv@gmail.com

Clutter from the Super's Desk

Alex Polimeni
Current Superintendent

My friends,

The months since we last enjoyed each other's company at Jay Beckham's house have undoubtedly been some of the strangest and most trying any of us have experienced. I'll be the first to admit this year's upheavals have knocked the wind out of me, and I can only imagine it's the same for so many of you.

What this means for South Mountain is that we need to get our Division back on the rails for what is undoubtedly going to be a year like none before in SMD's history. Invariably there is opportunity amidst adversity, and this pandemic has also created an opportunity for model railroaders everywhere to both work on their projects and collaborate with each other across the digital divide.

Moving forward, **SMD will hold our postponed officer's election during this September's virtual Zoom membership meeting Sunday, September 13th at 2pm.**

We'll also be holding Zoom test calls Friday, September 11th at 7pm and again on

Jerome "Jerry" Skeim
Candidate for Superintendent

I desire to lead a truly outstanding group of model railroaders. Participation is the key to a healthy division. Besides the obvious love that we all share for railroading, for me the NMRA is all about the people. What you and I bring to the division makes it what it is and what it can become.

We are currently living with COVID-19. This pandemic is challenging us to both maintain our health and our associations with others. Until we can meet again in person we will have to use alternate methods to stay in touch. As most of you are aware, there are a number of ways to do electronic meetings, so one of the current available options will have to be decided on and implemented. The challenge is to serve as many members as we can. Also understanding that some do not have the option of utilizing current technology. It will be a challenge to be as inclusive as possible.

At the same time we need to be good stewards of our finances and do what we can to retain current membership and promote the hobby with the goal of increasing membership.

I managed a branch office of a financial institution for 15 years. Served in the military for over 20 years. Prior to my retirement I worked for the Army National Guard Bureau in Arlington, VA. For the past two years I have served as the Assistant Superintendent of the South Mountain Division.

I retired in 2017, and have been married for over 40 years to the love of my life. We have 5 adult children.

I have been a member of the NMRA since 1971. I participate in as many railroad events that I can ranging from commercial shows, layout tours, NMRA sponsored events and meetings, national, regional, local conventions, mini-cons, presentations and operations opportunities.

I have a love for all scales in the hobby but my main interests are On30, On3 and 2-rail O scale. A new narrow gauge layout is currently in the construction stage. This was a point to point, 33 mile common carrier and logging railroad once headquartered in North Central Minnesota.

Saturday, September 12th at 1pm so folks can make sure they're able to connect.

As there are no contested races, we need only a quorum of 15 votes to elect this year's slate by acclamation. **We ask that all members, whether you're planning to participate in the Zoom meeting or not, email your votes to SouthMountainDiv@gmail.com, clearly specifying whom you're voting to elect to each position (Superintendent, Clerk, or Paymaster).**

Please **make sure your votes are submitted by Saturday, September 12th.** The Clerk will then allocate your votes by proxy during the meeting, allowing for a motion of election by acclamation to be made and carried. I will then hand off Division affairs to the new slate of officers at the conclusion of the meeting.

Our incoming officers have a huge task ahead of them- but, I'm not worried, because if the last three years have taught me anything, it's no Superintendent could ask for a more supportive membership than you. I've gone into every term of my tenure as Superintendent excited about that year's prospects for SMD, and because of all of you, this year is no different. You care about your Division, you want to see it succeed, and I have total faith that together, we will emerge from this tumultuous time stronger than ever.

Thank you again for a great three years,

Alex Polimeni, Superintendent
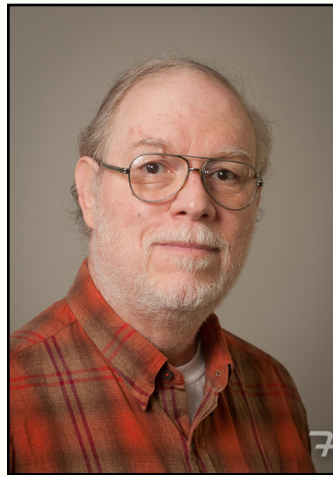
Harvey Heyser, III
Incumbent Candidate for Clerk

As a scale modeler for 50 years or so, I have modeled in HO, O, and now large scale, specifically G scale (1:22.5), using gauge one (1-3/4") track which represents meter gauge (I use it to represent 3 ft. gauge.). The three layouts I have started all got to the 'plywood dragon' stage and went no further.

I find early 20th century (before WWII) prototype railroads quite fascinating. My favorite is the Cumberland and Pennsylvania. Now that I am retired, I plan to model the C&P as a freelance, 1920s, coal hauling, narrow gauge short line. Layout design and operations also fascinate me. Contacts made through the SMD have given me many opportunities to participate in both those activities.

I have been an NMRA member since the 1970s and an SMD member since returning to the Shepherdstown, WV area in the mid-1980s. I very much appreciate the SMD for the opportunities for fellowship and the chance to learn new things about our hobby.
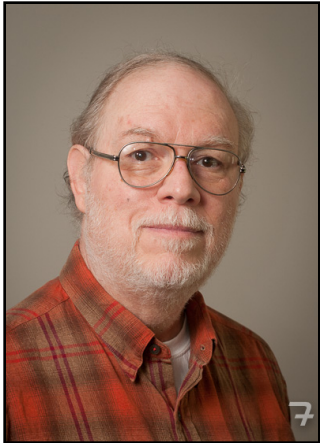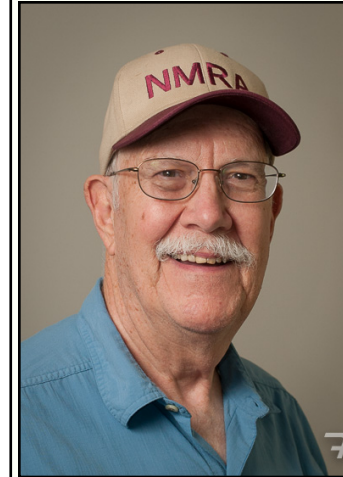

Raymond "Ray" Price
Incumbent Candidate for Paymaster

I joined the SMD in 1987 after moving to Frederick County. I reside in the eastern part of the county, almost along the Carroll County line. I have served in all of the elected positions within the division and even edited the newsletter.

I am interested in modeling the late 19th - early 20th century to 1904, primarily because of smaller equipment and shorter trains. Currently I am planning a small 4x8' layout to test how I do with building one. I also enjoy operations and participate in that aspect as often as I can.

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Harvey Heyser

If you have passed my layout design table at the Mainline Hobbies/South Mountain Division Mini-Con, you might have noticed several milk crates with binders in them. Those binders contain copies of track plans published over the years – quite a number of track plans. (Kalmbach claims they have more than 50,000 in their **collection**; sometimes I feel as if I have copied every last one.)

Why copy a bunch of track plans? First, I am of the opinion that studying published track plans helps us improve our design abilities. When we look at what someone else has done and evaluate it according to our own ideas and plans, we are using our powers of analysis, a very relevant skill for the design process. Second, as the binders are sorted by type of layout, we can look at quite a few similar designs in a relatively short period of time. As each plan is at least a bit different, we get a chance to see numerous ways of attacking the same problem. Third, these plans contain quite a few good ideas. We may see one that addresses a problem we face but cannot solve.

Trends: The benefit of spending many hours at the copy machine is that I have noticed some trends manifested in the track plans of various eras of our hobby. For instance, around-the-wall (walk-around with the train) style layouts have become much more popular than island style (table-top) layouts. In recent years, we have also seen a large growth in double-deck layouts possibly because this approach allows much longer mainline runs (more towns modeled and much longer tracks between them).

One deck – twice around: Sixty or so years ago, published plans often featured a different approach: twice around on a single-deck (separated by scenery). An instructive example is Doug Smith's Brook Valley RR (Model Railroad, Oct. 1957) – **above**. (Doug, by the way,

was one of the first proponents of the car card/waybill car forwarding system and was the first to earn a Master Model Railroader certificate.) The distance between Merlin and Brook Valley is half way around the layout, and that between Brook Valley and Smithburg is three quarters of the way around the layout. Those distances are significantly longer than the train lengths (as indicated by the length of passing sidings) and, thus, are somewhat unexpected on a moderate-sized 9 ft. by 15 ft. layout.

FIG #1 – DIAGRAM – DOUG SMITH'S BROOK VALLEY RR FROM MODEL RAILROADER – OCT. 1957 9'x15'
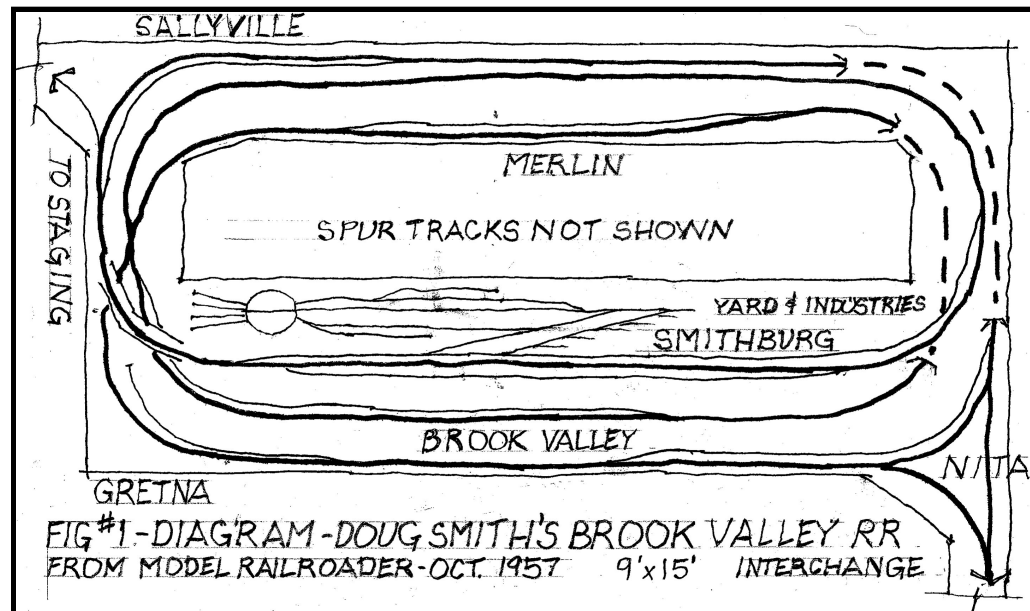
Single-deck twice-around layouts have been criticized for being "insincere," using one scene to represent two different locations. It seems to me that we should reconsider. While two decks may be the best approach for an experienced modeler like Tony Koester, a modeler with less experience is likely to find the increased complexity of double deck bench work and the need for one or more helixes leads to construction bogging down and to the layout never getting finished.

Along these lines of thinking, Howard Zane's recent discussion of his new layout (MR, Feb. 2020) using twice-around on a single-deck pointed out the following: "The Piermont Division is actually double-deck but with both levels on the same scenicked deck. [He] refers to the design as a 'blended-deck' layout. Instead of a helix, the main line climbs a long 1.5 percent grade to reach the upper level." The second track through his scenes is separated vertically from the first and frequently depicts a very different type of place such as rural versus urban.

In summary, the twice-around approach allows for longer runs between towns, does not require helixes, and is decidedly less demanding of complex carpentry (although such designs usually do require grades and a more vertical scenery configuration). However, the approach can be applied to flatter areas, as demonstrated by John Armstrong's Broadalbin, David City, and Pacific ("Railroad in Suspension," MR, May 1957 – **right**), an amazing example of multiple times-around set in relatively level mid-western scenery – two mainline railroads with a shortline bridge railroad between them. Staging for the mainline railroads can be hidden from view by low rises and/or rows of trees.

A fourth advantage of the twice-around approach is no upper deck blocking the view of the lower scenery. Avoiding the viewing angle problems of double-deck layouts means that aisles do not have to be as wide because crews do not have to back up to see trains on the lower deck.

FIG. #2 - DIAGRAM OF PLAN BY JOHN ARMSTRONG FROM MODEL RAILROADER – MAY 1957
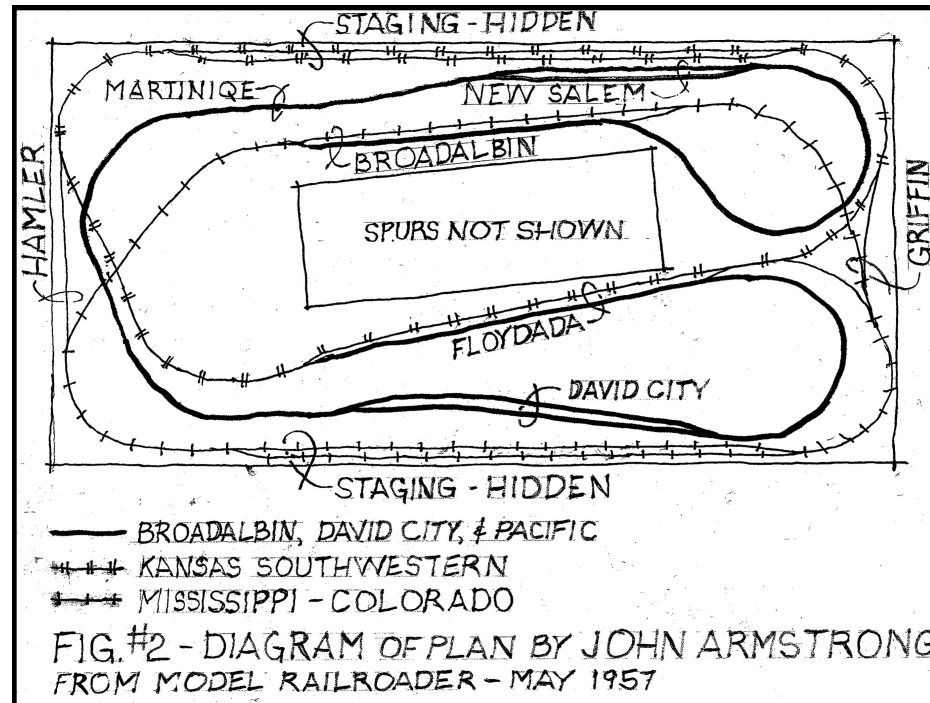
A fifth advantage comes into play when modeling dramatic mountain scenery. The twice-around track configuration paired with deeper scenery allows the more distant tracks to seem further away. Colorado narrow gauge layouts have taken advantage of this possibility quite frequently.

Issues: There are, however, some issues that need to be addressed with the twice around approach – things that are also common with double deck layouts.

1. Avoid locating two operation-heavy places one above the other. Make one place more important than the other. Otherwise, crews working in those places will get in each other's way. Locating a less interesting mainline run above (or below) a yard, for instance, would be a better approach.

2. Be particularly aware of the need for aisle space. Two operating areas across from each other need a wider aisle to permit crews passing. In addition, you need to allow space for crews operating on the second tracks through those scenes. That need may only be for a place where an engineer can stand and watch the train from a distance, but it must be considered none-the-less. With two trains running on the mains (across from each other) and two switching, there is the potential for a total of four crews in a given space. Aisles four feet (or even wider) may be necessary. (These space requirements also apply to double deck layouts.)

3. Make efforts to hide trains that are running on the mainline stretches. Obviously, tunnels (especially short ones) are one way to do that. For some railroads though, tunnels might not be appropriate. In that case, scenery (trees, hills, cuts, etc.) and structures can hide trains. Also remember intermittent hiding: mainline crews do not have to see their entire train in order to monitor its progress. Behind a stand of spaced trees, for instance, that train is less likely to distract crews working at the other place in that same scene.

4. Avoid complicated trackwork on the line furthest in; bring operational places to the foreground whenever possible. Reaching over scenery and structures has a tendency to be quite destructive. Deep scenery may be great to look at, but it makes access for derailments much more difficult. Consequently, avoid turnouts and other complicated trackage that increase the need for access on rear tracks.

A good example of the application of these suggestions is Russell Decho's Maywood Central (MR, Jan. 1962 – **below**).

On three sides of the room, two lines jockey for prominence and closeness to operators. The second line through a scene ducks into a tunnel or is vertically separated from the line with an operating focal point. (On the fourth side, there are two operating areas, but they are accessed from different sides of the layout.) The result is a layout with longer runs between towns and no need for operators to get in each other's way.

So, if you want longer runs between your towns, less complicated benchwork, no helixes, no upper deck blocking views, and tracks surrounded by dramatic scenery, give the twice-around approach consideration.

And please feel free to stop, sit, rest, and look at the track plan binders during the Mini-Con next year even if you do not feel like discussing layout design.

FIG. #3
DIAGRAM
RUSSELL
DECKO'S
MAYWOOD
CENTRAL R.R.

MODEL
RAILROADER
OCT. 1957
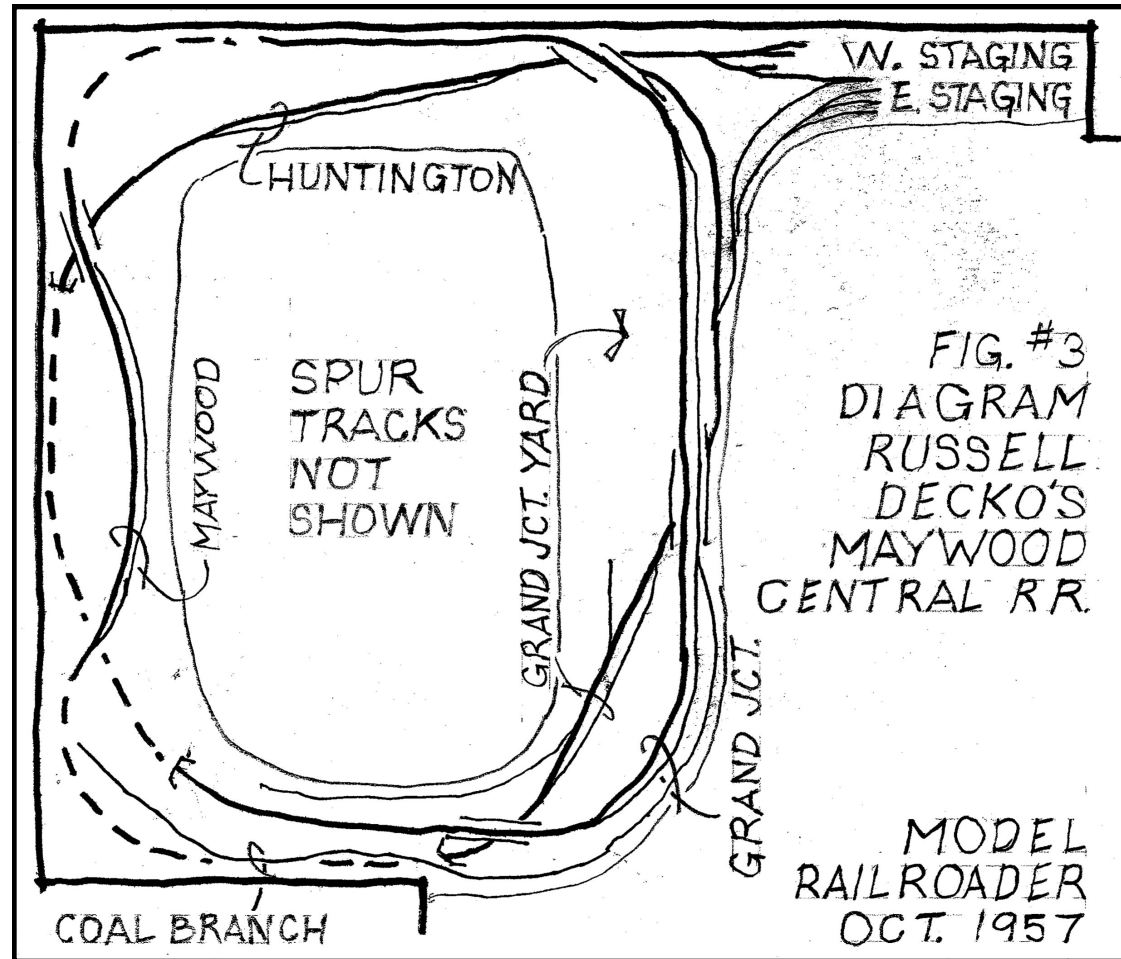
Magazine Archive Links

Model Railroader:
mrr.trains.com/ archiveaccess

Railroad Model Craftsman:
rrmodelcraftsman.com/digital/

Never trust a man who doesn't have a hobby, a female friend once told me. Thank goodness model railroading has been my hobby of choice for over 30 years – I must be very trustworthy.

Why do we enjoy this hobby so much? Forget the idea of the train set running under the Christmas tree or G-scale trains running around a sports bar ceiling. How do we explain our love for the hobby to inquiring minds at a barbecue or cocktail party? How do we convey our enjoyment of various aspects of the hobby: track installation and design, scenery and buildings, locomotives and rolling stock, electronics, simulating switching problems, creating a diorama depicting time and place, railroad research, history and documentation, and railroad art?

For me, the joy of model railroading is twofold.

1. I get to recreate a world of transportation long gone by.
2. I can create a complete transportation infrastructure in miniature.

We begin with a planning exercise – what do we want to see before our eyes – perhaps a train pulled by a steam locomotive trundling through the countryside as a period piece?

We strive to create a realistic depiction of time and place, as if we were standing on a station platform. What does our world of rail transportation look like in 1900, 1945 or 1970? In this process we find ourselves trying to understand what the physical world was like, especially the world of railroad work involving varieties of

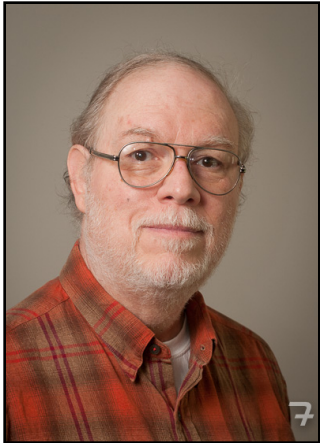heavy machinery. It's a way to travel back in time, historically and artistically.

Through this hobby, I am reminded that modern America was not borne out of Silicon Valley, but from workers and tycoons during the late 19th and first half of the 20th century in towns like Bethlehem, Pittsburgh, and Baltimore. For those of us interested in steel mills, coal mines, lumber mills and heavy industrial enterprises, research helps us dive deeper into the reality of that time. It's important to learn about the organization of work in pre-internet America (for those of us who haven't already experienced it) and the complicated battles fought between labor, management. Wherever there were railroads, there were adjacent enterprises dependent on national connections, and homes and neighborhoods subject to air pollution, noise, unpaved streets, and outdoor plumbing.

Because of model railroading, I've can appreciate even more those who inhabited these neighborhoods and did these dirty and dangerous jobs to create the America we know today. By creating these worlds in miniature and giving thought to their complicated histories, we honor those who built industrial America.

Six Questions
Part two.

For this article, I have used the term "informal operating systems" to differentiate less structured approaches from prototype-based operating systems. Steve King has used the term "fun run," but I feel that term, while easily understandable, does an injustice to both approaches to operations. Those interested in prototype-based operations would not participate if they were not having "fun," and those, who prefer a more relaxed experience, still want to learn about how the prototype does things. Consequently, I find the term "informal operating systems" more useful and less pejorative.

In **Part 1** of this article, we learned that adopting an informal operating system does not always result in the relaxed experience desired. In Part 2, we want to figure out how to establish some basic organizing principles for informal operating sessions and then find ways to communicate those principles to crews (in order to give them the information they need to do their jobs).

Basic organization: To avoid chaotic situations, any operating system must have some basic level of organization; however, the effort to organize operations can seem quite formidable, full of big issues to be addressed – kind of like the big task of getting a coal drag up a steep hill without helpers. I would like to make some suggestions to make that process a bit less intimidating.

First, remember model railroading is not a matter of life and death; it is our hobby. A layout can still be fun even if the operating system is not organized as completely as we might want it to be.

Second, getting organized is a process. I suggest you take it one step at a time: try decisions out, see what works (or doesn't), make adjustments, and move forward from there. (Repeat as necessary.) If you do that, you will find yourself less intimidated. (Remember friends can also help you see things from a different perspective.)

How do we figure out what step to tackle first? My suggestion is to start with a series of six fairly **straight-forward questions that focus on the trains you want to run.** This approach sidesteps big issues such as the railroad's purpose, goals and objectives for sessions; an appropriate level of traffic management; a sense of time as it relates to the session; and a system of car forwarding. Once you get operating, ways to address those issues are likely to reveal themselves.

The following is a sort of Abbott and Costello list of questions. (Remember "**Who's on first?**") Hopefully, this list is a bit less crazy.

1. **Why** does this train run?
2. **Who** runs this train?
3. **Where** does this train run?
4. **When** does this train run?
5. **How** do you run this train, and **how** do you coordinate its work with the work of other trains?
6. **What** happens to the cars in this train?

How can you come up with answers? Before you actually ask the six questions, what process will you use to find the answers? First, it is best not to concentrate on possible consequences of your answers. Remember **you don't have to get the "right" answer the first time.** Second, you do not even have to come up with your own answers. Through the years, model railroaders have developed numerous ideas for addressing these matters; **you do not have to reinvent the wheel.** Let us take a quick look at some ways you can find possible answers:

A. Research: You can learn what the prototype and other modelers have done from reading articles in model magazines. I recommend articles about both model and prototype operations. Learn how modelers and prototype railroads have dealt with these questions. Some of the articles may be useful; others not. Try out what seems best.

Note that this research may result in your reading articles advocating more formal prototype-based operating systems than you are looking for if you are considering informal systems. Read some of those articles anyway to get a good idea of the organizational issues prototypes and other modelers have dealt with.

B. Your operating experiences and preferences: What have you experienced in sessions on other people's railroads? What did you like (and wish to include in your system)? What did you not like (and wish to avoid)?

C. Your crews' experiences and preferences: Talk with the people most likely to be crew members, and find out what they prefer. Take that information into account, but do not let it override your ultimate goals and objectives for operating sessions. (SMD member Don Florwick began operating with a crew who preferred informal sessions, but that wasn't what he had envisioned for his railroad. He used those informal sessions to work out the bugs and then moved on to a more formal TT/TO system.)

Once you have some tentative, first answers using steps A – C, you can then move on to steps D and E. Remember that finding answers is a process; so don't be frustrated if your first efforts prove unworkable. Set unworkable answers aside, and try again.

D. Trial and error/beta testing: Start using the rough answers you have. Be patient. (SMD members Pete and Jane Clarke spent years operating their HOn3 East Broad Top, constantly refining their system, until they arrived at the system they use today.) Do not be afraid to make changes to correct things that are not accomplishing what you want.

E. Feedback from your crews: Remember they have different expectations and experiences from yours. Take advantage of that fact as you refine your answers (and eventually your operating system).

Elaborating on the six questions: Now, let us look at the questions again in more detail, and figure out how to find answers and communicate them to your crews.

1. **Why** does this train run? What is its purpose? What does it do? What customer(s) does it serve? Since your railroad is different from everyone else's, the trains you run will be unique in some way. Each of those trains has its own special role in developing the overall concept of your railroad's purpose and the operating session's goals and objectives. Answering the "why" questions will also give you an idea of how this train fits your railroad's overall scheme.

   Once you have determined each train's purpose, the best way to share that purpose with the crew is with a **brief** train description at the beginning of the train instructions. A sentence or two should suffice – something short enough for the crew to read before beginning their run. (Remember the hubbub that accompanies the start of every operation session).

2. **Who** runs this train? This is a two-pronged question.

   • Was the layout designed for one/two operators or for a large group? The answers lie in the design of your layout: for instance, the size and capacity of the aisles, the kind of railroad, the number and spacing of towns served, and the expected number of trains to be run in a session. After you have answered these questions, you can use those answers to determine how many crew members you need for your sessions and how many you can accommodate.

   • Once the crews arrive, who gets assigned to a specific train (or job)? Will you assign by arrival order (first there gets first choice), by experience (such as assigning veterans to dispatching and yard master positions), by sign-up sheet, etc? You have to decide and let your crew know in your orientation briefing.

3. **Where** does this train run? Where does it start from; where does it terminate? Where does the train have to go in order to do its job? Where does it interact with other trains?

Your answers to the "why" question will point you in the direction of answers to these "where" questions. After you figure out answers for one train, move onto the second, third, and so on. Since this question relates to the "when" question, you may have to revise the answers later on.

For crews, "where" questions should be addressed **briefly** in the train description (especially where the train originates, works, has meets, and terminates). Somewhat more detailed answers can then be provided in the body of the train instructions. (Remember, at the beginning of the session, it is best to keep the amount of required reading minimal.) Additionally, crews need help orienting where they are within the layout room. They need schematic layout diagrams/maps (giving place names and yard locations along the main line), location signs at those places, as well as more detailed diagrams/maps indicating where specific tracks and industries are. It is crucial that the names of these places be consistent with names used in paperwork.

4. **When** does this train run? For informal operating systems, time is perhaps the most complicated question because getting away from the pressures of time is one of the main reasons for taking the informal approach in the first place. Unfortunately, you have to address the time question. Easy prototype-

based answers like clocks and timetables are likely to be too formal for you and your crews; so you must come up with a way to determine when a train should be on a given track. (Otherwise, collisions will happen.)

To do so, you will probably need some sort of **rough schedule**. That can be developed before regular sessions begin and later reflected in the instructions given to crews. (They may not ever need to consult the schedule.) To develop a rough schedule, you should start by making a list of trains in the chronological order you want them to run. Then, you will need to find out how long it takes to run each train in order to figure out when and, consequently, where that train will meet other trains. These are trial and error investigations that you can make before regular operating sessions begin. (Be aware that there may be more stress than desirable during this testing period, but keep in mind that you are trying to find ways to eliminate that stress when you move on to your regular sessions.)

Over the years, we model railroaders have come up with quite a few ways to address the time issue without going to the lengths to which the prototype goes. Among the options we have tried are verbal authorization (mother, may I? sessions), sequence schedules (trains in chronological order), operating scripts (think of Frank Ellison's comparison

of operating sessions with scripts for plays), and train instructions. Some of these work better than others as discussed in Part 1. (Regardless,, there are numerous options to choose from. I plan to discuss some of them in future articles.) To my way of thinking, how you answer the time question is crucial if you want to develop a relaxing, informal operating system for your railroad.

Your best way to give crews time-related information will be the detailed train instructions (following the initial description of why and where the train is run). Be clear and complete. Remember crews won't see the schedule.

5. **How** do you run this train, and **how** do you coordinate its work with the work of other trains? Start by focusing on each train separately. Figure out how it should do what it is supposed to do. Then factor in how the operation of other trains will affect the one you are considering and make adjustments. Beta testing and trial & error are good ways to develop detailed, coordinated answers for these questions. Again, detailed train instructions are the informal way to communicate this information to crews.

For crews, "how" becomes a two part question:

- How a crew runs this train is best conveyed by the train instructions. The level of detail in the instructions relates to the kind of session you want: one that expects train

crews to read lengthy, instructions with lots of rules to follow or one that is more relaxed and open. Bulleted directions, grouped under headings for each of the places where events happen, are one way to simplify train instructions and to make them easier to read one at a time.

- How a crew coordinates its train's work with the work of other trains relates to the places (where) and times (when) trains must interact with each other: passes, meets, and multiple trains working in the same location. You want crews to have a basic familiarity with what is happening during the session (especially as it relates to their train) without having to consult a complicated timetable. Again, good train instructions can provide sufficient information and clear up any required matters of train superiority. Unexpected situations can then be handled by train orders (verbal or written).

6. **What** happens to the cars in this train? Clearly, you will need some sort of car forwarding system. We model railroaders have quite a few of these from which to choose: car cards and waybills, switch lists, color-coded tacks, car-for-car exchanges, etc. Based on your experience and preferences, choose the one that seems best suited to what your railroad does, then try it, and see how it works. Try another system if the first does not work out. Revise as necessary.

For some kinds of traffic (passenger trains and unit trains, for instance), train instructions alone may serve; however, for general freight traffic, you will likely need a more detailed system giving crews specific directions about where to spot and pick up cars as they run their trains. In setting up a more detailed system, try to keep the information you give crews as brief as possible: type of car, reporting marks, number, and destination may be all the information they will need.

Conclusion: The questions I have suggested are one way to focus on the trains you wish to run and to use those trains as a start to organizing the larger operating system for your railroad. As I said earlier, this approach sidesteps the big issues, but beginning to operate is likely to reveal ways to address those issues.

One important thing to note about the process of answering these questions is that **the answers you come up with do not necessarily have to be shared in their totality with your crews** – for instance, the rough schedule you developed to answer the "when" question. Your crews probably will not need to refer to that schedule during the actual session – especially if they have train instructions telling them when and where to meet other trains. In other words, your railroad can have a whole layer of "complicated organization" of which your crews can remain blissfully unaware.

With these questions spelled out, we have come to the end of this article and, hopefully the beginning of your quest for the operating system that is right for your railroad. What we have discovered is that setting up an informal operating system is a bit more complicated than we might have imagined. We have realized that just because we want to run trains in a relaxed fashion, we still have to address some basic organizational questions in order to give crews the information they need to get their "jobs" done. The prototype had to answer these questions; so do we. Your goals may be different from the prototype's, but by answering these questions, you can develop enjoyable, relaxing sessions for your crews (and in the process, give them opportunities to experience and learn more about what prototype railroads do). You want your crews to operate in a calm, "professional," capable, **and relaxed manner.**

If you decide an informal operating system is right for you, you will probably want to know about specific alternatives to prototype procedures. Some of these alternatives may not be widely known. For instance, you may have experienced the often chaotic "Mother, may I?" type of session and want a more "professional" type of session. (In this case, perhaps, a "dispatcher, may I?" approach will work better.) Or you may be familiar with formal train orders (prototype-based), but not aware of fill-in-the-blank train orders (more informal).