Sunrise Herald

December 2014 Volume 7, Number 12

Sunrise Division Officers

Superintendent……..…Steve Schweighofer
Asst. Superintendent……..Frank Germo
Secretary……...……..Stewart Jones
Treasurer……..Bill Johnson
Program Chair……..…….Gary Myers
Division AP Chair……...…….David Bol
Youth Coordinator……...Ernee Edwards
Education Chair……..Stewart Jones

In the Herald

Notes from the Secretary

This brings the year 2014 to a close. As we prepare for a new year it is customary to make New Year's resolutions. I'm sure we all have things we would like to improve on in the future. I have a few projects that have been on the back burner for quite a while and would like to restart. Perhaps you do also. Do you have some kits in the closet that are just waiting to be built? Are there some track or electrical demons that need to be exorcised? Perhaps there are some details you would like to add to your scenery? If none of these apply, is it possible you would like to become more involved in our Division modular layout? This June our regional convention will be held in Greenwood Village, so if you couldn't make the last two conventions because of the travel distance, you might plan to drop in on one or more of this year's sessions. There are lots of things to consider, but whatever you do or don't do I wish you a very successful model railroading year.

Next Meeting

Our next meeting would normally be held on January 1, but New Year's Day will probably not be convenient for most of us. We have explored the possibly of meeting on January 8, but Holy Love is currently unable to confirm this so we will cancel the January meeting. Our next meeting will be February 4th at Holy Love Church.

Upcoming Clinics for 2014

January – Cancelled
February - Moffatt Modelers - Frank Germo
March – To be announced
April - TBA
May - TBA
June - TBA
July - TBA
August - TBA
September - TBA
October - TBA
November - TBA
December - TBA

Upcoming Tool Times for 2014

February - TBA
March - TBA
April - TBA
May - TBA
June - TBA
July - TBA
August - TBA
September - TBA
October - TBA
November - TBA
December - TBA

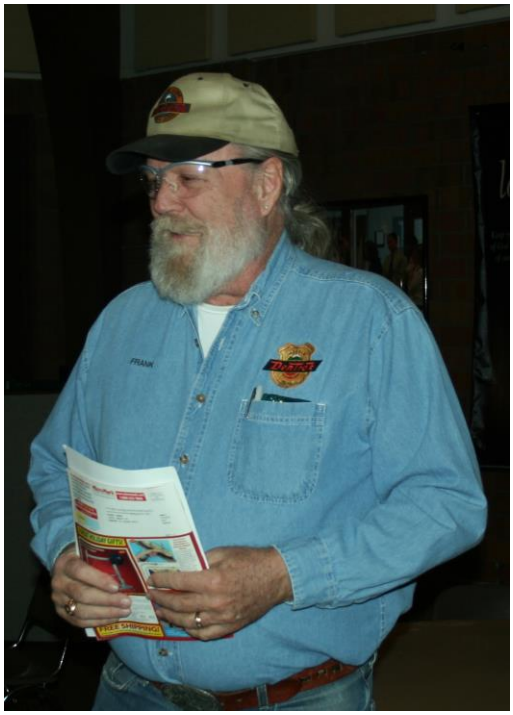
Upcoming Show 'n' Tell Themes for 2014

January – Cancelled
February – Railroad Vehicles
March – Ore
April – Freight Docks and Cranes
May – Yard Offices
June – Fruit and Vegetables
July – Water / Fuel Tanks
August – Conveyors
September – Logging
October – Warehouses
November – Pork
December – Traction

December Division Meeting

Frank Germo, Assistant Superintendent, opened the meeting at 7:20 with the usual member introductions. There were 20 members present. There followed several announcements about open houses, shows and meets which happened earlier this month, so I have not included them here. The next Forney Swap meet will occur the second Saturday in May.

Gary Myers announced an issue with the new NMRA logo (looks like a wheel profile) and solicited opinions. The old logo was a spoked steam locomotive wheel and coupler. Gary plans to conduct an official RMR Opinion Survey soon for the Region where you may register your choice.



Frank Germo opened the meeting.

Dick Hunter presented a modular layout report. Our layout was displayed at the Train Collectors Association (TCA) show at the Denver Merchandise Mart in late November. Aside from some electrical problems, everything went well. Dick showed four brief videos of the layout in action. The trailer is now in winter storage and will probably not return for more work until late February. Our next showing will be the TCA show early March. Other possible shows include a show in North Platte, Nebraska in the spring and a possible show in Omaha later.

Rich Flammini announced that he had obtained three new NMRA recruits at the November TCA show.

Bill Johnson presented a brief Caboose Hobbies report. Caboose no longer provides a list of new products that formerly appeared in the Herald.

The next item on the agenda was Show and Tell, detailed below.

We broke for refreshments and then voted on a movie, *Emperor of the North*, for the remaining evening's entertainment.

Gary Myers is preparing for the evening's entertainment.

December Show and Tell – Theme: Switchers

Bob Rothgery displayed this tank engine lettered for his Elk Pass Railroad. The locomotive began life as a conventional brass steam engine which Bob modified by adding a tank from a tank car to follow a Denver & Rio Grande prototype.

Larry Stephens brought this tank switcher with the tanks mounted only on the sides. It is apparently lettered for the Great Northern.

Ernee Edwards displayed this EMD SW cow and calf switcher combination lettered for the Virginia Southern.

Stu Jones brought an Alco RS-3 road switcher lettered for his Boreas & Saguache Railroad. This originated as a Model Die Casting kit. At some time the end handrails were broken, so Stu replaced them with soldered brass replicas. The crew evidently keeps this locomotive very clean.

Dick Hunter submitted this narrow-gauge Denver & Rio Grande Western diesel switcher. The prototype now performs duties at the Colorado Railroad Museum. Dick's crew likewise pays attention to the cleanliness of the locomotive.

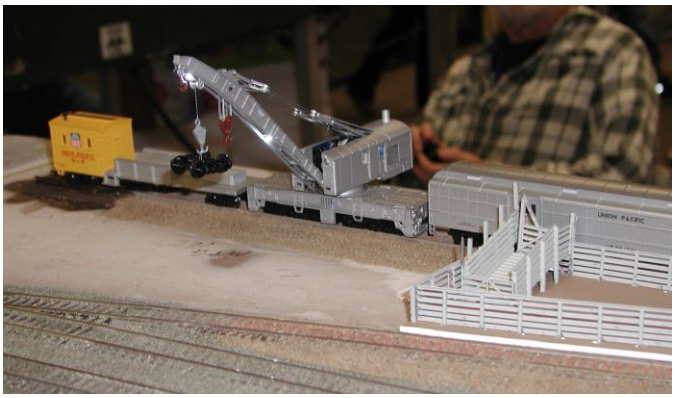
Modular Layout Photo Gallery from the Train Collectors Association Meet

Here is a selection of photos from the last setup of the Division's modular layout at the November Train Collectors Association meet in November.

A Missouri Pacific hotshot reefer manifest hurries through the newly built town on module 11. A few of the stores are awaiting future tenants.

A Southern Pacific GS-4 moves a string of Union Pacific varnish through town following the MP train.

Here the GS-4 hustles another UP passenger train through the truss bridge across the creek bed. It must have been dry on the plains this year.



Larry Stephens put his work crane into operation on this siding. The crane raises and lowers both the boom and hook and also swivels.

A Union Pacific Challenger highballs through the town on modules 5 and 6. A worker loads a UP boxcar at the freight station in the foreground.

A UP 4-8-2 pulls a PFE manifest around a dry lakebed on module 7. We really need some rain.

Running two trains on the same track presents some problems. A moment's lapse of attention led to a rear-end collision and this derailment. Fortunately no fires or other major damage resulted.

The meat packing plant is a busy place on this afternoon. Unsuspecting cattle are being unloaded and moved into the plant for "processing." This plant is one of the industries salvaged from the previous Division layout.

Here is a sidewalk view of a MoPac freight hustling through town. The crew will have to take in the movie at a future date.

Marketplace

Occasionally we receive information abut sales that may be of interest to Division members:

N Scale model railroad for sale. This layout is built from 3 32"x48" sections plus 1 12"x72" staging yard. It measures 8'-0" at the yard, 8'-8" along the staging yard and 6'-8" at the mountain loop. All the sections bolt together and have joints at the rail over the splice for smooth trackwork. The track is mostly Micro Engineering code 55 with a few pieces of Atlas Code 55, each piece of track has a feeder wire soldered to it. The switches are all rebuilt to proper gauge and are manual with slide switches for both power routing and point control. The layout was designed for operations and includes

a loop for continuous running, a small classification yard, engine facility (I have the complete building kit for it), interchange and a branchline to a switching area. It usually took a group of 3-4 about 1.5 hours to move all the trains and cars on the layout. It is wired for DCC as a single block, but should be able to create multiple blocks for DC or DCC but cutting gaps in the rails. The layout has 17 ME #6 switches, 3 Atlas #5 switches, 1 Atlas curved switch and 5 handlaid #5 switches. The mainline run measures approximately 28-ft and the branchline is approximately 10-ft from the yard throat to the first switch in the switching area.

Included is the layout itself, the structures on the layout in the photos and some scenery material that matches what is already on the layout. Sorry, no trains or DCC components.
See www.yardsaletrains.com for low price equipment to get you started.

I'm asking $350 for the layout and can help move it if needed. E-mail reply to dmidkiff.mines@gmail.com if you are interested.

Photos can be found here: http://s1151.photobucket.com/user/dmidkiff/library/Old%20Layout?sort=2&page=1

Doug Midkiff, PE

Structural Engineer
C 303.960.4085
dmidkiff.mines@gmail.com

The NMRA Achievement Program Award

Model Railroad Engineer - Electrical

The requirements for Model Railroad Engineer - Electrical may look long and complicated, but they are not really. The reason that they are so long is to offer you more options for meeting the requirements.

You don't even have to do all of the work on a single layout - you can do some on a club layout, some in your basement, and some on your garden railroad, etc.

Remember - don't make the requirements more difficult than they are, by reading more into them than is there.

To qualify for the Model Railroad Engineer - Electrical certificate, you must:

A. Construct and demonstrate on own or club layout, the satisfactory operation of an electrical control system on a model railroad capable of simultaneous and independent control of two mainline trains in both directions, and containing at least:

"Simultaneous and independent control of two mainline trains... "can be as simple as a single track main with sidings. This means that as long as you can cut power to the sidings individually, you can run one train, park it on a siding while you run another, then park it and run the first again. This meets the requirement.

1. For conventional DC wiring (non-command-control), five electrical blocks that can be controlled independently. For command control wiring (DCC, TMCC, and others), sufficient gaps and switches to maintain polarity, phase if needed, and troubleshooting.

2. One mainline passing siding.

3. One reversing loop, wye, turntable, or transfer table.

4. One yard with a minimum of three tracks and a switching lead independent of the main line.

   ("Independent" means that you are able to operate the locomotive switching the yard and the lead on a separate powerpack without interfering with mainline operations.)

5. Facilities for the storing of at least two unused motive power units

   Don't make this harder than it is - these are just sections of track (usually spurs) that you can cut power to independent of the main.

6. One power supply with protective devices (short indicator or circuit breaker) to ensure safe operation.

   You don't have to build this yourself, you just have to have one in your control system. You can use a commercial supply that has these features, modify a commercial supply to add these features, or even build it yourself - but only if you REALLY know what you're doing.

B. Wire and demonstrate the electrical operation of at least three of the following items:

1. Turnout

   Wiring up the simplest powered turnout from your hobby store will satisfy this requirement.

2. Crossing

   Most commercial crossings come pre-wired. Just set one up so that you can run trains through on both tracks.

3. Crossover
4. Double Crossover
5. Slip Switch *(single or double)*
6. Gauge Separation Turnout

7. Double Junction Turnout

8. Three Way Turnout
9. Gauntlet Turnout
10. Spring Switch
11. Operating Switch in Overhead Wire

Don't make the requirements in B or C any harder than they have to be. You do not have to scratch build any of these; you just have to show that you can make them work electrically. Of course if you want to go to the effort of building them yourself, you may learn many new skills in the process! The whole point of these requirements is for you to demonstrate a variety of skills.

C. Wire and demonstrate the electrical operation of at least three of the following items:

1. Electrical turnout position indication on a control panel or at trackside for a minimum of four turnouts. (Remember that many commercial switch machines have electrical terminals to allow you to do this easily.)

2. Track occupancy indication on a control panel or at trackside for a minimum of five blocks.

3. Cab control, making provision for the connection of at least two power supplies to a minimum of five blocks as the trains progress. (This means that

your layout has at least five blocks, each of which can be controlled by one of two power supplies. The five blocks DO NOT have to be in a row along the same stretch of track.)

4. Engine terminal, including an electrically powered turntable or transfer table, a minimum of three stall tracks, and at least two blocked storage sections for parking locomotives outside the stall area. (This means you need to have a total of five tracks (three inside an engine house or roundhouse, and two outside), that you can cut power independently to store motive power).

5. Two turnout junctions with electrical interlocking and protecting trackside signals. (This is simply a turnout with electrical protection to prevent a train from going through a turnout that is set against it. Again, the electrical terminals on a switch machine, combined with a couple of insulated rail joiners, make this a fairly easy project.)

6. High Frequency Lighting (This is an old term for Constant Lighting.)

7. Electronic throttle with inertia and braking provisions. (This requirement could be combined with requirement A-6, above.)

8. Grade crossing with electrically actuated warning indication. (You don't have to design or build the circuitry for this yourself. There are a number of commercial components available that you can just wire up to meet this requirements. Or you can use commercial plans that appear in magazines from time to time. Or you can do it from scratch.)

9. Two-way block signaling with automatic train detection for at least five blocks. (See remarks under #8).

10. Operating overhead wire, using either pantographs, trolley poles, or both for current collection. (Any traction fans out there?)

11. Installation of an advanced electronic and/or computer control for the model railroad.

12. Design, installation, and operation of animated mechanical and/or electrical displays.

    This doesn't have to be a huge animated display - think about small eye-catching displays like animated industries or signs. Put a carousel in the local park or chase lights on the marque at the Bijou.

13. Design, installation, and operation of mechanical and/or electrical layout lighting displays.

    (This means lights which illuminate the layout, as opposed to lighted things on the layout. For example, lighting which simulates the change from day to dusk to night)

14. Installation of a command control receiver. Modifications or additions to the device's wiring are required. Installing a plug-equipped decoder into a manufactured prewired socket is not sufficient.

15. Installation of a command control throttle buss line around a layout capable of handling at least two throttles at three or more separate locations.

<u>Commercially assembled complete units are not acceptable in the items below:</u>

16. Construction and installation of a sound system.

    This does not have to be an on-board sound system, it could be an under-the-layout system.

17. Construction and installation of a signaling system.
18. Development and installation of a CTC system.
19. Installation and operation of an on-board video system.
20. Computer generated block detection information.
21. Hardwired or stored control program (i.e. computer) for operation of the railroad.
22. Development and demonstration of a computer-to-railroad interface.
23. Other:

    (Examples of 'other' includes flashing warning lights on locomotives, or end-of-train devices on cabooses, etc.)

Please note that operating third rail (center or outside) or overhead wire powered layouts may be considered for ALL aspects of the AP. Also note that the use of advanced power supplies, train control, track wiring, and track control methods shall not be restricted by the definitions in the minimum requirements listed above.

These items may not appear to be equal in difficulty - they aren't meant to be. They are meant to provide a wide variety of things that people may have done that they can get credit for.

D. Prepare a schematic drawing of the propulsion circuitry of the model railroad in (A) showing the gaps, blocks, feeders, speed and direction control, electrical switches, and power supplies.

Note that this requirement includes ONLY the propulsion circuitry. It is not required to include the wiring for electrical turnout control, signal systems, building lighting, etc. You do not need to include the details for parts of the diagram which are repeated. If a number of parts are wired in the same way, it sufficient to draw one section in detail and indicate other locations with rectangles.

E. Prepare schematic drawings identifying the wiring and components of the six items under (2) and (3).

For the sake of clarity, these schematics should probably be separate from the propulsion circuitry schematic in (D) above. If you already have one over-all schematic of the layout, you might want to consider making multiple copies and going over the applicable lines with a highlighter for each feature.

Note that this is just turning in the kind of documentation that you should be preparing for your layout anyway. It will make trouble shooting much easier in a couple of years when you've forgotten how it all went together!

F. You must submit a Statement of Qualification (see below) which includes the following:

1. The track plan for the layout used in (A).
2. A description of each of the features used in (B) and (C), including:
   a. A description of the item.
   b. The methods of construction.
   c. Identification of commercial components used.
3. Schematic drawings as required in (D) and (E).
4. The signed Witness Certification form, showing that each of the above items are

operational and meet all applicable NMRA standards.

Notice that there is no requirement for Merit Judging in this certificate. The presence and operation of the required features must be verified by a witness (the Region AP Manager, or their designee), but they do not have to achieve a minimum score.

Further Information

Contact National Achievement Program General Manager, Paul Richardson, MMR achiev@hq.nmra.org, or your Region or Division Achievement Program Manager for more information.

Also refer to the NMRA AP regulations (1992), the AP Handbook (1991), and from the articles "Model Railroad Engineer - Electrical," and "Electrical Engineering," NMRA Bulletin, July 1991.

Forms available for this category:

- SOQ Form: (PDF)
- Record and Validation form: (PDF)