



Volume 67 Number 4

THOUSAND LAKES REGION

NATIONAL MODEL RAILROAD ASSOCIATION

The FUSEE

www.thousandlakesregion.org



Summer 2020

Making a Company Sign



Henry Ford's grandson Benson dedicated the Ford plant on September 21, 1948. When neighboring Florissant attempted to annex the plant, the residents of the mostly rural area incorporated the Village of Hazelwood. The plant produced Mercury and Ford automobiles until January 25, 1984. Production then shifted to the Aerostar minivan and then the Ford Explorer.

Thomas Gasior, MMR
Photos by author

Creating a company sign for a Ford Automobile Manufacturing Plant was a fun weekend project. A fellow modeler in my group features a huge automobile plant on his layout. It is set in Missouri, just west of St. Louis. It is the 1985 era and the Minivans are just becoming the most popular type of family transport. The Ford plant in Hazelwood, MO is represented on the layout and they started to manufacture the Ford Aerostar vans that year.

The size of the industry is quite large by any layouts standard. His theme was to feature fewer, but larger rail served industries in the operations. One whole side of the layout is just for the auto plant and the huge freight cars needed to bring in parts and carry out finished vans.

I am a big fan of location and era modeling, and doing something I call Planting your layout. Most people put the name of the town on a depot and call it good. I like to go a few steps more and make the visitors feel like they are in the north woods, wheat fields of Kansas, the agricultural valley in California, or in this case, eastern Missouri in the mid 1980's.

(Cont. Page 7)



View from the Cab

President Jay Manning

We are experiencing a difficult time for all of us in the Thousand Lakes Region. In addition to the Covid warnings, we have numerous governmental approaches to remaining safe, and of course we have the border issue of it being closed between the United States and Canada. It is a time that challenges all of us to use our imagination in order to maintain the momentum lost as a result of the cancellation of numerous train shows, demonstrations, open houses, and the annual TLR convention. It has not been an easy year to maintain interest in the model railroading hobby, Division activities, and Region business and activities.

Regaining the lost momentum will take an all dedicated effort to “re-assemble” division membership and activities. It has long been a guiding principle of mine that with public train shows the opportunity to meet, and greet the public with enthusiastic members is the way to grow Division membership, and NMRA membership. I have written in the past about searching out events and activities in your local area to display the hobby either with layout activities or information desks. Most, if not all, of the public events after March 1, 2020 until this week were cancelled by the event sponsors. I noticed in today's news that “sleeping opportunities” are just starting to emerge. It is prime time so hunt out new and re-emerging venues and make an upfront offer of a display at the event. Remember, the sponsors lost their opportunity to be in front of the public, as did we. They too have to regain the public trust in their organizations and rebuild their reputations for quality.

The largest concern still has to be finding activities that can be participated in safely. There is no need to risk member's health and safety to “make an appearance.” It is incumbent upon the Division leadership and/or coordinator for activities to fully explore and UNDERSTAND the proposed activity and the safety precautions being planned. Sponsoring organizations must have discussions on maintaining safety in accordance with the applicable guidelines where they are located. I can tell you from recent publicity, there is an emphasis on safety, and some interesting philosophies appearing from sponsors. Division leadership MUST communicate with its membership what safety precautions are being discussed so that the membership may

make an educated decision on whether not to pursue participation in an event.

I would like to ask a more difficult question for thoughtful consideration. What has your Division done to ensure the health and safety of your members? I realize that there has been a “lockdown” in many areas, but that is not an excuse to lose sight of your members. Are you regularly communicating with your members? Division leadership communicating with Division membership is critical to the success of a Division. Have you been “holed up” with your hobby and not talked to fellow members?? From personal experience, I can attest to the importance of communications, and you never know when somebody will find something interesting or that will help develop your modeling skills. One of the DSED members found the **Manning Railroad**, a short line in Nebraska that only has 7 miles of track. The company owns a beautifully painted and maintained engine, with color pictures available on the internet. In addition, another member found a website that has the complete history of that engine. A new project for me that I would never have found was born...

As we get our hobby “out of the closet,” please do it with a purpose in mind and do it safely.

ANNUAL THOUSAND LAKES REGION AWARDS

The following awards would have been presented at the 2020 regional convention that was canceled by the COVID-19 pandemic.

Stafford Swain Memorial Lifetime Achievement Award (For 10 years or more of service to the region)

Lester Breuer, MMR

Bob Dew Sr, Memorial Award (For 5 years of service as a board member or 2 years as Fusee editor)

Jim Krekelberg

President's Award (Chosen by President for the individual who has assisted the President in the past year)

Fred Headon, MMR

Congratulations to each of the recipients.

NMRA AT-RISK PERSONS POLICY

The NMRA has developed a policy with regard to persons who are at-risk.

1. Definitions

- a. NMRA shall mean the National Model Railroad Association and its internal organizations, the regions and divisions.
 - b. At- risk persons are those persons under the age of the majority or those persons who have legal guardians.
 - c. Programs are any formal or informal activity by an NMRA entity aimed at at-risk persons.
 - d. Student Membership is a membership category in the NMRA is not a Program.
 - e. A Legal Guardian Designation Affidavit is a document in which the parent or legal guardian:
 - i. States the name of the at-risk person;
 - ii. States the name of the legal guardian or parent;
 - iii. States the parent or legal guardian is designating a person as their legal designee able to make all decisions for the at-risk person;
 - iv. Acknowledges that the legal designee must be physically present with the at-risk person at all times.
 - v. The parent or legal guarding signs the document; and,
 - vi. Has the signature of the person or legal guardian notarized.
 - f. Other organizations shall mean organizations other than the NMRA, its regions or divisions, such as, but not limited to, the Boy Scouts or 4H clubs.
2. The NMRA shall have no programs directed towards at-risk persons.
 3. Student members shall have a parent or legal guardian physically present with them at all NMRA activities at all times.
 4. Persons with legal guardians shall have a legal guardian physically present with them at all NMRA activities at all times.
 5. A parent or legal guardian may designate a person to be physically present at all times and responsible for the at-risk person by means of a Legal Guardian Designation Affidavit.
 6. The parent or legal guardian or designee authorized by means of the Legal Guardian Designation Affidavit who accompanies the at-risk person need not be a member of the NMRA but the person is entitled to and must be physically present with the at-risk person at all times regardless of the fact the person is not an NMRA member.
 7. The policy does not prohibit individual NMRA members from participating in programs or activities of other organizations directed at or with exposure to at-risk persons on their own initiative.

April 29, 2020

8. The policy encourages NMRA regions and divisions to provide material support (e.g. kits, tools, money) to the extent a region or division is able, to other organizations so those other organizations may operate their programs directed to at-risk persons. However, such material support shall not be deemed to be a NMRA program but donations to other organizations only.
9. The policy permits the NMRA to publish requests for volunteers for railroad or model railroad related topics or activities by other organizations directed at or with exposure to at-risk persons. However, those volunteers must be directed to a contact person with the other organization.
10. The NMRA shall not organize or direct or otherwise control persons who volunteer for other organizations.
11. 100% NMRA Clubs are not a part of the NMRA or its regions and divisions. It is an insurance program to support model railroad clubs whose entire membership are NMRA members against personal injury lawsuits, only.

Frequently Asked Questions

What does this new at-risk persons and youth policy mean?

This means that the NMRA, including divisions and regions, shall not participate in or have programs of their own which are directed at at-risk persons. This does not prohibit individual members from volunteering their personal time to help railroad programs aimed at at-risk persons.

Does this policy apply to all regions and divisions?

Yes

Why did the NMRA decide to issue this policy?

In society today we see lawsuits against various individuals who are in positions of trust who abuse that trust and abuse the vulnerable among us. These have been teachers, clergy, and volunteers in other organizations. In November 2019 the Boy Scouts had to mortgage Philmont Scout Ranch for \$446 million dollars for payment of abuse judgments and settlements, and most recently the Boy Scouts declared bankruptcy. This happened despite the Boy Scouts' comprehensive – and expensive – program used to screen and prohibit abuse.

The NMRA is not equipped to enforce the necessary protection policies for our members to follow. We do not have the money for the insurance or the company that provides training, or the staff to make sure the regions and divisions are complying with the necessary requirements to prevent abuse.

By way of example, we provide money to regions every year based on their membership, provided the region certifies by a declaration that all its members are members of the NMRA. Yet every year some regions will not even provide this simple one-page document to receive the money allocated to them. If we have difficulty

getting regions to comply with this, we could not succeed at the far more important and complex enforcement of a youth policy.

Simply put, one instance of an abuse lawsuit by someone against the NMRA would bankrupt the NMRA and the organization would cease to exist. Statistically, based on the population at-large, we know that some of our members would abuse an at-risk person. **NMRA insurance does not provide coverage for any accusations of abuse.**

Who exactly are “at-risk” persons?

At-risk persons are anyone under the age of majority or persons who have legal guardians. Age of majority means the age of legally becoming an adult, which is 18 in the United States. Other countries may have different ages so please consult legal advice for those outside the United States.

Others who are “at-risk” are persons who have legal guardians because they have been judged or deemed incapable of handling their own matters. An example might be a mentally challenged individual who enjoys our hobby.

How do we manage youth members of the NMRA?

We will manage youth members the same as any “at-risk” person. Anyone who is at-risk must have a legal guardian physically present with the at-risk person at all times. Someone may substitute for the legal guardian provided the legal guardian provides a notarized affidavit providing that the other person will be physically present with the “at-risk” person at all times. For youth members, this will mean one of the parents.

What does this mean for the Boy Scout Merit Badge Program and other similar groups?

The NMRA would encourage all regions and divisions to support outside groups to introduce others to our hobby. We can still cooperate with these outside groups but that cooperation is limited to telling our members that the outside group is requesting volunteers and providing the outside groups contact information to our members so the individual members can participate if they wish. The NMRA, at all levels, shall not further coordinate with the outside group.

In addition, NMRA regions and divisions are encouraged to and may provide monetary or material support for a third party group. So a region or division could donate kits, tools, or supplies to the outside group to promote the hobby in these third party groups. However, the outside group cannot advertise its activity as “Sponsored by the NMRA” or “Sponsored by the _____ Division or Region” or any similar language.

My division or region has directly sponsored events and programs directed at youths for years and we are careful, have safeguards, and have had no issues. Can we still participated in these programs as an NMRA entity?

No.

Members of my Division host a youth-oriented model building group that meets monthly to encourage younger modelers. The Division promotes these events in our newsletter. The group has no rules and just offers support and practical knowledge to younger modelers. Can we continue to promote these events?

No. The Division in this question is taking an active part in the program. If the modelers want to start and independent group to operate this activity, then those individual members may do so. However. The division can only then advise its members of the outside group and contact information for the group as discussed in the FAQ discussion outside groups.

What does this mean for regions or divisions that display at public spaces?

You may still display your work at train shows, malls, or other places where the general public are. You may still interact with the public at the shows and answer questions.

What does this mean for 100% NMRA clubs?

100% NMRA club insurance is an insurance vehicle to insure clubs for injuries caused by club members or by property owned by the club. Otherwise, we have no guidelines or requirements of clubs. Thus this new youth policy does not apply to 100% NMRA clubs.

NMRA insurance is not the type of insurance that would provide coverage for any accusations of abuse. Thus 100% NMRA clubs are liable for accusations of abuse and this probably means the individual members of the clubs are responsible if the club is sued over a matter of alleged abuse.

No region or division may organize a 100% NMRA club as a method of circumventing this policy.

The preceding information is reprinted directly from the NMRA website. If you have questions concerning this policy and its interpretation, the first reference to review is the NMRA web site for guidance. If you cannot resolve the issue there, please forward your questions to Jay Manning, President, Thousand Lakes Region, National Model Railroad Association. He will work to resolve the issue from his level with the Headquarters and the NMRA leadership.

Putting up a Ford sign would not have been good enough. So I did some research on signs put outside these rather ubiquitous structures. Ford has gone from having their name spelled out in huge letters and script font, to basic signs with a logo and plant name. Some include the location, the vehicle being produced and the logos of the various unions providing the labor for crafting an automobile.

I decided to go with one that had the famous Ford oval in blue, and the location, Union logo and a Home of the Aerostar mention. Operators would now know where they were and what they were hauling in all those Bilevel auto racks.

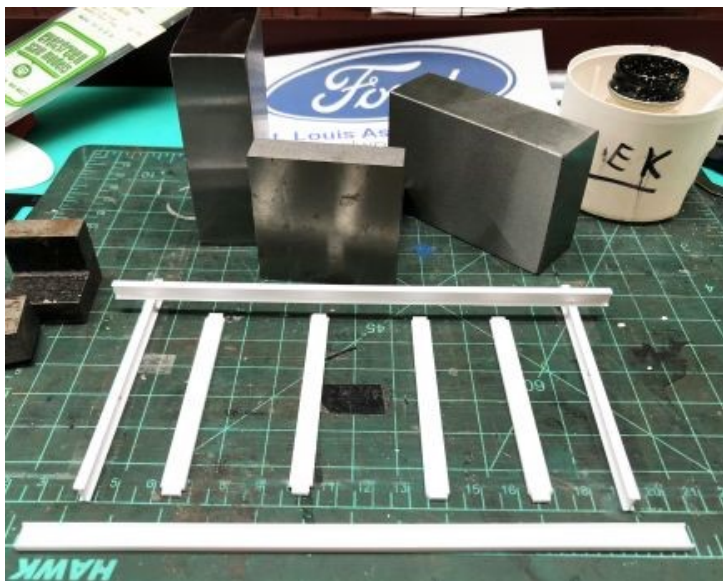


Photo 1- The base is constructed of I-beams with flat styrene stock notched at the ends to sit inside the I-beam ends.

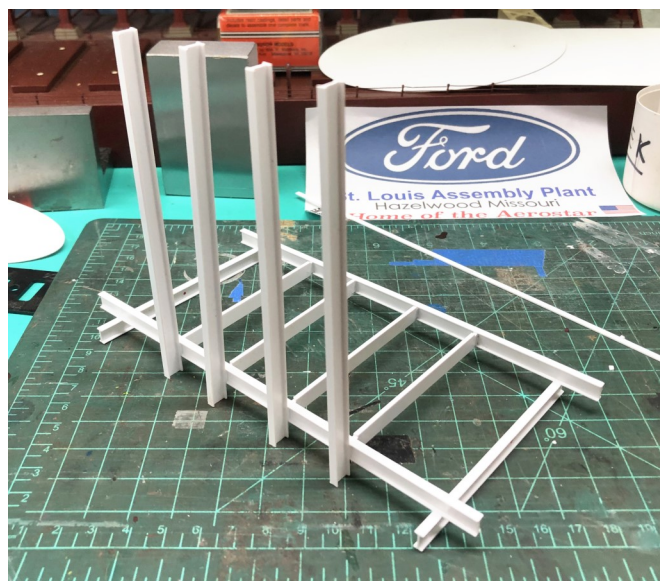


Photo 2- The vertical supports are straight I-beam sections glued to the base.

I used all styrene for construction. My adhesive of choice when joining styrene together is MEK. It actually melts the outside layer and provides a plastic weld that is very sturdy. I used Evergreen styrene sheet and I-beams. Plus some strips for the bracing. Sheet styrene was used to make the sign placards. I used my NWSL Chopper to create many I beams of the same length. I basically created a kit which I could now assemble. (photos 1 and 2).

Getting my steel squares and solid 1-2-3 blocks on my workbench helped to lay out the I-beams and cross braces in straight lines. After alignment and holding in place with the blocks, I applied the MEK with a disposable brush from Micromark. The MEK seems to have no effect on the fuzzy end of these versatile little brushes.

The base was made first, by adding the notched I-beams to space out the horizontal beams in a precise manner. The vertical Beams were added next. Angled supports were added to simulate a strong sign that would withstand our midwestern summer storms and frigid winters.

I found many Ford logos online and combined them in my Affinity Photo shop to create the wording for the signs. Once I had these sized correctly and printed, I could move onto the structure of the sign. I used my Cricut cutter to cut out the oval the correct size. (Photo 3).



Photo 3- The oval was cut out to the same dimensions as the Ford logo, using a Cricut cutter. The Plant info was a simple rectangle

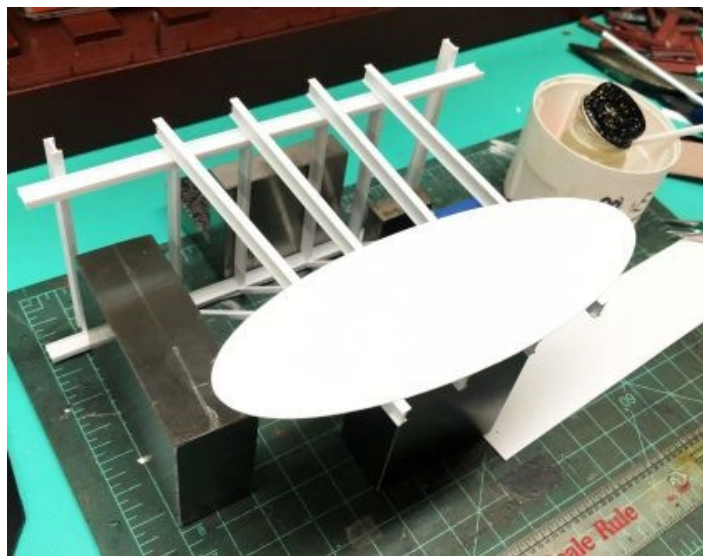


Photo 4- The styrene sign placards were applied prior to painting.

The oval and rectangle were then applied to the front of the vertical beams, and the whole assembly was washed in warm, soapy water and allowed to dry. Vallejo Grey paint was applied by an airbrush. (Photo 4).



Photo 5– The signs are printed on an inkjet printer and attached with an Elmers Glue Stick.

The Ford logo and sign writing were cut out from a printed sheet of paper off my inkjet printer. These were applied to the painted sign using an Elmers glue stick. It was all ready to be moved to the factory in my friends basement, (Photo 5)

It now resides on top of a structure that is twenty Six feet long by three feet wide and receives 50, 60 and 8)9 foot boxcars, flatcars filled with frames and ships out Ford vans in 89 foot auto racks. The workers and towns people of Hazelwood, MO are proud of their factory. Now visiting operators will have a sense of where they are running, besides the name on the depot.



Photo 6– The finished product on the factory, allowing crews to know where they are.

From the Archives of the Thousand Lakes....

Matt Lentz, Historian

The first shipment of archive supplies has arrived consisting of magazine preservation sleeves for the old issues of the Fusee. Each old issue gets its own sleeve and then these sleeves are filed in an archive box especially constructed to preserve important papers.

The preservation of old issues to high resolution digital photographs is moving ahead rapidly. Additionally, a bound ledger has arrived to record the work being done so future historians will have a single source of continuity information.

One of the research possibilities is examining the old issues for articles about past conventions. In the future this will help convention chairs get a picture of what conventions looked like at places the TLR has been to.

The work continues. Past historians did a very good job of preserving information in a way that allows us to have a most excellent research tool in the future.

Features from past years are on the following pages...

These Guys Take Their "Operation" Seriously, Or, How to Have Fun While in a Stark Panic

By: Bill McKean, Editor Dakota Southeastern Division's "The Consist"

Five members of Dakota Southeastern Division travelled to the Twin Cities the weekend of October 20, to participate in MinnRail '95, a gathering of 46 guests and no one quite knows how many hosts, all dedicated to the Operation (Capital "O" is intentional) of Model Railroads.

Principal organizer, Gary Freseman, owner/operator of the Arcwood & Rice Creek, brought men from as far as Winnipeg, Milwaukee, Chicago and Kansas City, not to mention Sioux Falls and Brookings, to Operate on ten different layouts over four sessions

Larry Feay, Bob Graen, Mike Kaufman, Jim McGuire and myself managed to hit most of the available layouts between us during the Operating sessions Friday evening, Saturday afternoon and evening, and Sunday morning.

I first visited Tom Hokenson's Sierra Western, a free-lance HO road set in Idaho in the 1960's. This HUGE layout fills a very large basement on two levels, with helper service grades rising over your head. Throttles were CTC-80 Command Control, and the railroad is dispatched through a telephone system for engineers and headsets for yardmasters.

Saturday afternoon brought a trip to Bob Johnson's Pseudo-SOO with complete scenery, many top-notch structures, On-Board command control, and radio-dispatched Operation. Although this layout was probably less than 1/4 the overall size of the Sierra Western, there was plenty of action to keep the crews alert and entertained.

The Saturday evening session was spent at John O'Brien's Great Northern (Minot Division). This point-to-point layout features about twenty trains running out of stacked staging yards, CTC-80 Command Control, headset radios for the crews, and very realistic dispatching. My biggest thrill was being at the throttle of the Empire Builder across the Minot Division, having everybody else have to clear the railroad to get Train #1 through. This layout was very new, and another layer of track, reached through a helix, is on the drawing boards.

Sunday morning's finale was a visit to the Arcwood & Rice Creek, based on the Chicago Northwestern, plus a branch line. Although this railroad is DC rather than command control, the mainline track blocks are all controlled by the dispatcher, and schedules are strictly observed. I felt that I did rather well during the first half of the session, but suddenly found myself in very deep water,



Bill is seen here relaxing and enjoying the train excursion to Two Harbors at the last TLR Convention in Duluth.

having switched from engineer to conductor on the branch line. Trying to figure out how to get the right car switched to the right industry, while clearing the branch for the rock train was a little more than I could manage, and I had to hand off to more experienced Operators.

Another railroad that was visited by the Dakota Southeastern contingent was Linda and Dave Sand's Cedar River Terminal, and HO layout comprised mainly of a huge classification yard, interchange point and about 15 industries, with over 60 car spots. It even included a short stretch of computer-controlled commuter service, with signals and switching in the interlocking plant thrown by the dispatcher by means of point-and-click on his computer screen!

Gary Gelzer's Great Northwestern Coastline was the only N-scale layout on the tour, but was run by several crews, including three yard terminals and many mainline runs.

Mike Sofie's Northern Pacific (Lake Superior Division) is based on the premise that the BN merger never happened, and so SD-40-2's in NP paint haul ore into Duluth-Superior in 30-car-plus trains from several mines in the Arrowhead of Minnesota. Bob and Mike counted over 150(!) ore cars on the layout, but this did not include any cars still spotted at the mines, or any in hidden staging.

Imagine having to remove and insert over 150 ore-car loads between sessions to re-stage the railroad!

Of course a good many train moves have to be made to re-stage any of these railroads, and those of us who were privileged to run on them are very grateful to the hosts for their time, and their patience with some of the operators.

Although it was pretty late by the time the evening sessions got over with, there was still a lot of discussion about "which one did you go to and what was it like? What kind of control system? How did it run?" before heads hit the pillows. The discussions continued on the trip home.

Many of the layouts we encountered had about zero for scenery, and none or very little was planned. In fact, I'd guess it would be darn near impossible to do much of a scenery job on some of the layouts due to the need to get about as much track as possible into the given area of the layouts. The owner's pleasure was Operating trains, and that was that. Other layouts were done in a manner where scenery was possible, and were quite well-done.

Did we learn some things about Operation on this trip? Yeah, one of the them was we still needed to learn more. Another was how much fun it can be to be part of a functioning railroad in miniature, not just running trains around. Was it tough? Sure. Most of the DSE contingent had very little experience at this game. Was it stressful? Sometimes, in the way that a round of golf, or watching a game on T.V. can be stressful. Was it FUN? No question — it was great fun, and we all hope we'll be asked to the next one.

(Stolen from the Dakota Southeastern Division's "The Consist" Vol. 1, No. 10. Thanks, Bill.)

We offer two narrated VHS videos from the 8mm color movies of Dennis Henry: **Vol. 2 Minnesota Railroad Memories 1964-71:** CB&Q, NP, GN, MILW, CRIP, MN&S in Twin Cities, Chicago, Northfield, more, with lots of passenger. 60 minutes. **Vol. 1 Indiana & Early Amtrak 1964-72:** MON, P&E, WAB, C&EI, PC, BN, MILW, ATSF, C&NW, IC, MN&S in IN, IL, WI, MN. 49 minutes. Professionally transferred to high-quality tape, in plastic box. \$28.50 each postpaid, plus 6.5% tax for MN sales. SSAE for synopsis.

We produce 48 streamlined car side sets and kits (including 6 dome cars and 3 bi-levels) for over 34 roads, including GN, NP, CB&Q, SP&S, BN, MILW, C&NW, CRIP, SP, CN, UP, PRR, IC, C&O, ATSF, and NYC. Sides use either our Basic or Deluxe Body Kits, or the overlay method. Send a LSSAE (55¢) for our catalog and bulletin. Available through hobby shops or direct (add \$4.00 shipping). Dealer terms available.

BRASS CAR SIDES

715 S. 7th

St. Peter, MN 56082

Contest Department

Curt Radunz, TLR Contest Director

Over the years the Thousand Lakes Region has founded a proud tradition of first-rate model and photo contest entries. As Contest Director, I suspect that everyone is in the process of working on their entries for the contests at River Rails 1996, to be held in Sioux City, Iowa, in May, 1996.

Contest registration at River Rails 1996 will be from 5:00 PM until 6:30 PM on Friday evening, and again on Saturday morning from 8:00 until 9:00 AM. This way, most of the model contest judging can be done Friday evening, thereby giving the judges more time to enjoy convention activities on Saturday. Please remember: all contest entrants must be a current member of a region and the NMRA.

The video contests, both model and prototype, will also be held at the 1996 Sioux Falls convention. We had enough videos entered in the prototype category to create some pretty good competition. We were short entries in the model category, so let's get those camcorders running for this year's contest. Rules for both video contest will remain the same as with previous conventions.

The special event category for 1996 will be for private name covered hopper cars. The car can have the name of an industry or grain elevator that you have on your layout, or a covered hopper with your own pike's name on it. The special event models will be judged under the same guidelines as the models entered in the rest of the contest categories. Let's see how many pike names and/or private industries exist out there.

A note to all division superintendents...please encourage your membership to have contests. Contests at the division level, either popular vote or NMRA judged, are always good for the members. It encourages the members to strive to improve their modeling skills by competing with their peers, winning awards and personal recognition, and working towards the valued NMRA Achievement Program points.

I would also want to remind everyone that we need contest judges and I would like to encourage members who haven't judged a contest before to think about being a shadow judge at one of the TLR contests. Remember, if we can get a few more people trained as model and photo judges we won't have to be depending on the same people to do the same job year after year. Shadow judging is not only a good experience, but it also gives a person a good idea what contests are all about, and it also might help to make them a better modeler or photographer.

If anyone needs the Thousand Lakes Region Model and Photo Contest Rules and Guidelines booklet, contest entry forms or is interested in being a judge or shadow judge for the 1996 convention, let me know.

Hopper Cars

Open-Top Covered

By: Corey Gated

I recently decided to increase the overall number of hopper cars in service on the layout, but I just wasn't quite certain exactly what styles were in use in July, 1974. Since there has been a number of new releases of open hopper cars models in the model railroad industry and I want to be as close to prototype as possible (allowing for artistic license, of course).

So, once again I turn to the Car and Locomotive Cyclopedia, Centennial Edition (1974) for help. I opened to page S3-73 of the cyclopedia and began my education on hoppers, both open and covered. The following is taken from (plagiarized (?) from) the cyclopedia:

"Although hopper cars long constituted the second largest classification of railroad freight equipment (after box cars), the emphasis on bulk movements by railroads has pushed this type of car into first place. In 1973 there were 365,000 open-top hoppers, 151,000 railroad-owned covered hoppers and 54,000 privately-owned covered hoppers.

Open-top hopper cars are used most extensively in the movement of coal. Other high-density commodities which move in these self-unloading cars include stone, ballast and ore. When built with high-cube bodies, the cars are used for the movement of low-density materials such as coke, saw dust and wood chips. Except when designated for extremely low-density ladings, these cars are now almost always built in 100-ton capacities. The growing use of such cars in unit trains has led to the development of powered door operating arrangements, some of which are completely automatic. Such arrangements allow trains to increase the utilization of the cars.

The covered hopper represents one of the great railroad growth patterns of recent decades. The total ownership increased from about 50,000 covered hoppers in 1955 to well over 200,000 in 1974. Built first in large numbers during the 1920's for cement service, the past 25 years have seen the covered hopper utilized for a steadily growing number of bulk products requiring protecting in transit. The car makes possible bulk movements of materials formerly shipped in bags and barrels or handled in bulk in box cars fitted with grain doors. Some cars have been fitted with humidity control equipment for handling chemicals and food products; a recent development is the use of insulated covered hoppers fitted with mechanical refrigeration equipment for bulk movements of perishables.

Many covered hoppers must be lined or built of corrosion-resistant materials to prevent contamination of ladings or damage to carbodies. Designers have produced many different body arrangements to maximize cubic capacity; bodies range from approximately 2,000 to 7,300 cu.ft."

A.A.R. Classification of Hopper Cars Designating Letters and Definitions

Class 'H' - Hopper Car Type

"HM" - An Open Top Self-Clearing Car, having fixed sides and ends, and bottom consisting of two divided hoppers with doors hinged crosswise of car and dumping between rails.

"HMA" - An Open Top Self-Clearing Car, having fixed sides and ends, and bottom consisting of two divided hoppers, with doors hinged lengthwise of car and dumping between rails.

"HT" - An Open Top Self-Clearing Car, having fixed sides and ends, and bottom consisting of three or more divided hoppers with doors hinged crosswise and dumping between rails.

"HTA" - An Open Top Self-Clearing Car, having fixed sides and ends, and bottom consisting of three or more divided hoppers with doors hinged lengthwise of car and dumping between rails.

"HK" - An Open Top Self-Clearing Car, having fixed sides and ends and bottom consisting of two or more divided hoppers with doors hinged lengthwise of car and dumping outside and/or inside of rails.

"HFA" - An Open Top Self-Clearing Car, having fixed sides and ends and bottom consisting of divided hoppers at center with doors hinged lengthwise, dumping outside and/or inside of rail; also one divided hopper, each end, extending from end of car to bolster with doors hinged lengthwise of car and dumping outside of rails.

Class "L" - Covered Hopper Car Types

"LM" - A car equipped with one or more permanently enclosed tanks or containers, provided with one or more openings for loading and equipped for pneumatic or gravity unloading. Car is suitable for handling certain dry powdered or granular commodities, and also low-viscosity, non-dangerous liquid commodities.

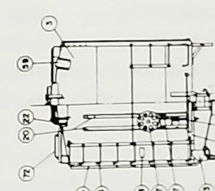
"LO" - A permanently enclosed car, other than a house car, regardless of exterior or interior shape, for handling dry powdered or granular commodities with or without insulation and provided with openings for loading through top or sides with weathertight covers or doors. Car may be provided with one or more bottom openings for unloading with tight-fitting covers, doors, valves or tight-fitting slide or gate to prevent leakage of lading. Cars may be provided with facilities for discharge of lading through openings in top or sides and may have one or more compartments. Mechanical or other means may be provided within the car to expedite loading or unloading.

Note 1 - If any of these cars are equipped with coke racks, the letter "C" should be affixed to the regular symbol to designate its special class of service.

Note 2 - If any of these cars are equipped with a roof or are covered for protection of contents the letter "R" should be affixed to the regular symbol to designate its special class of service.

Note 3 - When cars are equipped with permanent racks for stowing parts or are specially modified or equipped to provide for loading of a particular commodity, the letter "S" should be affixed to the applicable designating letters.

COVERED HOPPER CAR NOMENCLATURE

$$28 \quad \Gamma(\mathcal{L} \otimes \mathcal{L}^*) = \Gamma(\mathcal{L}) \otimes \Gamma(\mathcal{L}^*) \oplus \mathcal{H}(\mathcal{L})$$


- | | |
|-----|---------------|
| 1 | ARMED (GUN) |
| 2 | ARMED (SPEAR) |
| 3 | ARMED (SPEAR) |
| 4 | ARMED (SPEAR) |
| 5 | ARMED (SPEAR) |
| 6 | ARMED (SPEAR) |
| 7 | ARMED (SPEAR) |
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Announcing the 2021 TLR Convention

Bismarck, ND May 20-23

The 2021 TLR Convention will be hosted in Bismarck, North Dakota next year, May 20 to 22. Bismarck is the state capital and is located in central ND, 3 ½ hours west of Fargo. It is situated on the Missouri River and was the launching point for the Lewis and Clark Expedition, as well as the westward push of the Northern Pacific Railroad. The North Dakota Heritage Center and State Museum is a great place to visit, and is located near the state Capital building, which is one of a very few Art Deco style capital buildings. There is also the Dakota Zoo, Lewis and Clark Interpretive Center, Fort Mandan, and Chief Looking's Village Historic Site. Fort Hancock Historic Site is downtown, and located along the BNSF/NP mainline. This is the location of the Fort charged with protecting the NP work crews as they advanced across North Dakota. It contains NP Q -3, 4-6-2 Steam Locomotive #2164.



Camp Hancock with the NP Q-3 #2164.



View of the Northern Pacific Railroad bridge crossing the Missouri

Adjacent to Bismarck, is Mandan, the location of the NP Yellowstone Division point, and there is a BNSF yard there currently. Mandan also has the North Dakota Railroad Museum. Nearby is Fort Abraham Lincoln, an early American restored fort where General George Custer originated his ill-fated Little Bighorn campaign. There are also several historic Native American Burial Site mounds in state parks in the area. Missouri River tours are available on a the Lewis and Clark Steamboat.

Current convention plans will have registration starting Thursday, May 20th with an open house at the State Railroad Museum. Friday, with possible changes, is a all-day tour to an open



Fort Mandan

**9th Annual
Model Railroad Show & Sale**

Sponsored by



**Sunday, October 25, 2020
9:00 a.m. – 3:00 p.m.**

**Franklin County Convention Center,
Hwy 3 West, Hampton, Iowa**

**Admission \$5.00 (Ages 10 & under Free with Paid Adult.
For Info or Updates Call (641)456-1998
or Email: eastsidetrains@gmail.com**

**Seeking Clinicians for 2021
Convention**

**(May 20-21) in Bismarck,
ND:**

We are looking for clinicians for our 2021 convention for a range of topics, including for general arts and crafts for the non-rail participants. Please contact Kevin Dill, Clinic Coordinator, at Dillkev@aol.com if you have clinic you'd be willing to present.



I enjoy model railroading and want to share my experiences with you! You can see my build of kits, how-to's, painting information and much more on my internet blog. Check out <http://mnrailroadcab100.blogspot.com>.

Lester Breuer, MMR

Review and Detailing of Walthers Mainline GP9s

By Jared Seliger

In March 2020, Walthers released another production run of EMD GP9s in their Mainline product line. Walthers has previously produced their GP9s in multiple road names and road numbers. This spring's release included a production of both DCC/Sound and standard DC (equipped with DCC 21 pin plug) versions available in high hood and chop nose variations. After their release, I purchased 4 units, two chop nose versions and two high hood units, all equipped with DCC and sound. The MSRP is \$199.98 for the DCC/sound locomotives and \$139.98 for the DC versions.

Walthers Mainline locomotives are a great product line for modelers who do not have the budget to purchase high end locomotives. Because they are a mid-level product line, many of the details of the high-end locomotives are absent. The Mainline GP9s do not come equipped with any grab irons, MU hoses, antennas, sunshades, bells, sand lines, etc. The shell is injection molded and is prototypically correct for a phase II GP9. The location of the radiator fans, louvers, and two-stack exhaust are correct. On prototypical locomotives, railroad specific variations are likely to exist so the injection molded shell may not incorporate those variations.

Visually, the Mainline GP9 meet my expectations for a mid-level product line so I proceeded to evaluate the locomotive's performance. Generally, my locomotive and product reviews tend to focus on the positive aspects of the products because I care about this hobby and I try not to criticize the products. Unfortunately, the out-of-the-box performance of the Mainline GP9 with sound was extremely disappointing. The sound units come equipped with a Loksound Essential Sound Unit (ESU) decoder. The Essential Sound Unit decoder is a value decoder that provides several sound functions but is lacking the details of the latest Loksound 5 DCC decoders. It seems to be analogous to Soundtraxx "Econami" decoder that is found in some Athearn Ready-to-Roll sound locomotives. The Essential Sound Unit decoder is a very basic sound decoder that, in theory, should provide a decent level of operation. It is limited in terms of the configuration variables (CVs) that are editable and all sound editing is disabled.

The first test of one of the four purchased locomotives was extremely disappointing. The startup sequence initiated appropriately and the sound of the prime mover seemed to be accurate for an EMD 567 power plant. Applying 2-3 speed steps on the hand throttle resulted in a very violent jerking of the locomotive from a dead stop to movement. After about 20 seconds of operation, the decoder self-initiated a dynamic brake sequence (even without the function being depressed on the throttle) where the RPMs would drop to idle while maintaining the current speed. The only way to disengage the dynamic brakes was to stop the locomotive and resume operation. Further testing resulted in a 1-2 second delay in the RPMs being reduced to idle after moving the throttle to speed step zero.

Since four locomotives were purchased, the rest of the remaining locomotives resulted in replication of identical issues in three of the four units. Internet research was quickly conducted, and some other modelers reported that updating the firmware on the locomotives resolved many of the issues. All the decoders were updated to the most current firmware version and that did seem to help to solve some of the jerkiness related to initial movement (NOTE: To update the firmware, a LokProgrammer is needed). The updated firmware did not solve the spontaneous initiation of the dynamic brake sequence. To disable the dynamic brake sequence, the CVs were changed to disable the process. To disable the dynamic brakes on the Essential Sound Unit decoder, program the following CV values: CV38 = 0; CV216 = 0; CV207 = 0, and CV232 = 0.

Another, more costly, solution is to swap out the Essential Sound Unit decoder for a full-featured sound decoder. These Walthers locomotives have an NMRA-standard 21-pin decoder plug so the decoder can be upgraded easily with no soldering or wiring (Image 1). To improve the performance of these locomotives, all four were upgraded to Loksound 5 DCC 21-pin decoders.

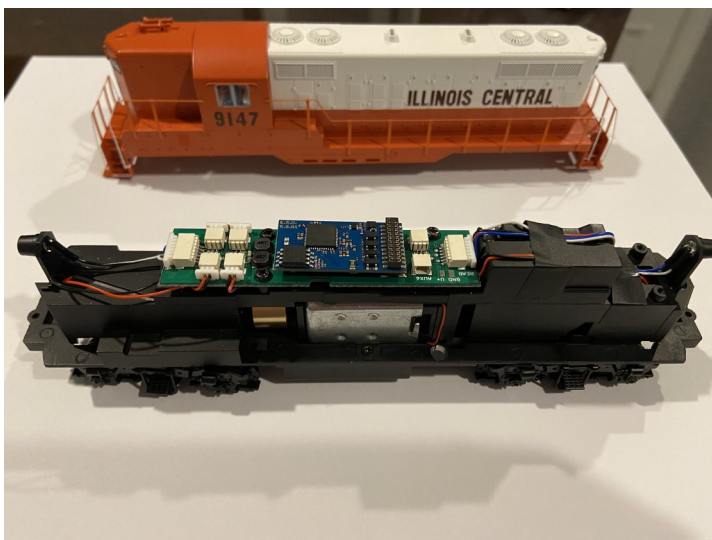


Image 1– The ESU decoder (blue) is shown, but can be replaced easily. The author used a Loksound 5 decoder.

Walthers Mainline locomotives do not come equipped with many of the separately applied details; however, they provide options for modelers who want to provide more details on their locomotives. The injection molding frame has mold marks to place the grab irons on the short and long hoods (Image 2). The shell also includes drill-points for the lift rings on the top of the long hood (Image 3). Walthers also manufactures a diesel detail kit specifically for the GP9 locomotives that includes the grab irons and lift rings to detail either a high hood or chop nose GP9 (the part number is included in a table in the appendix). While the Walthers detail kit is a nice start for adding details to the Mainline locomotives, it does not include other parts such as bells, MU hoses, air hoses, sunshades, antennas, etc. Since my layout already has multiple highly detailed locomotives on my layout, I began research on what was needed to incorporate



Image 2– The raised bumps are for drilling and placing hand grabs on the short hood.



Image 3– The holes are for placing lift rings on the long hood.

prototypically correct details on these locomotives to enhance the realism on my layout.

Several companies produce individual locomotive parts to detail locomotives and it becomes a bit of a scavenger hunt to find everything needed to super detail a locomotive. The parts to detail the Mainline GP9s were acquired through a combination of my local hobby shop, online hobby shops, and an online auction site. All of the parts used to detail each version (chop nose and high hood) are listed in the Appendix.

Once all of the parts were acquired, the first part of the detailing process included painting everything the appropriate color. Depending on what roadname and paint scheme you are detailing, finding prototypically correct colors is crucial to ensure a successful project. Illinois Central orange is a very unique color and very difficult to find the appropriate shade in an “off the shelf” orange model paint. Thankfully, Badger Precise Designs produces a brilliant shade of IC orange that perfectly matches the paint on the Walthers Mainline IC locomotives. In addition to the orange, additional colors were needed: white for the up-

per grabs and lift rings, black for the MU hoses and air hoses; and silver for the tips of the hoses. Careful research of prototype photos will assist you in replicating the actual colors of the separately applied parts.

Once the pieces were painted, the detailing of the locomotive commenced. One of the most important tools needed is a pin vice and mini drill bit set. The bits needed were a #80 (for the grabs and lift rings), a #75 (for the MU hoses) and a #70 (for the train air hose). As described earlier, the Walthers Mainline GP9s have mold marks for the grab irons and the lift rings. Additionally, on the front and rear frame have pre-marked holes for the MU and air hoses. Before any of the parts were applied, all of the holes were drilled out. A helpful tip to ensure that the holes are drilled in precise location is to take a sewing needle and make a small indentation on the surface of the locomotive where you want to drill the hole (Image 4). This technique pre-



Image 4- The author uses a needle to indent the area prior to drilling to prevent drill bit drift, and reduce the pressure needed.

vents the bit from “slipping” away from the location you want to drill. The small bits are relatively fragile and this process also helps start the drilling process without having to add additional force to the bit, thus increasing the likelihood of breaking a bit. Another tip to consider is to take your time and be patient drilling your holes. Each grab iron requires placement in two separate holes so precise drilling is paramount to ensure the part fits. If you have never drilled holes with a pin vice, it is recommended to practice these techniques on a scrap sheet of styrene before attempting on your locomotive shell. Drilling out the holes is a very labor-intensive process and extreme patience must be practiced to achieve a quality outcome.

Once all of the holes to place the locomotive details have been drilled, application of the parts commenced. There is no “prescribed” order to place the parts, but it is recommended to start placing the parts in the difficult to reach locations first and then conclude with the parts that are easy to reach. For example, I started by placing the grab irons on the long and

short hoods. Several of the grabs were located behind the handrail stanchions which needed to be removed. I finished up with the MU hoses and lift rings. I used a pair of micro tweezers and a magnifying glass to make the process a little easier. The tip(s) of each part was dipped in clear liquid modeling cement to ensure secure placement. As with drilling the holes, practicing patience is extremely important because placing small parts in precise locations can become very frustrating. It is also recommended to work in small sections at a time. For example, I would place the grab irons on the short hood and then let the glue dry to prevent movement of the parts with accidental con-

tact. I would then move onto the rear and let them dry, etc.

The overall detailing process took about 10 days from start to finish to complete (on average spending around 60 minutes on the project each day). The final product is a remarkable upgrade from the as-delivered Mainline product. Some comparison photos of the undetailed versus the detailed locomotives are shown in Images 5-8. Except for the cost of the upgraded decoder, the overall cost of this project was less than \$40 per locomotive. The time invested in detailing locomotives enhances the realism on your model railroad and allows you to create a high-end quality locomotive for a fraction of the cost.



Image 5 though 8- The original appearance is the shell on the right, and the detailed shell on the left.

Appendix of parts on next page

Appendix I: Parts list for detailing Walthers Mainline GP9s

QTY	Part number	Manufacturer/Description
1	910-258	Walthers Mainline/Diesel Detail Kit for GP9
1	ATH01097	Athearn/Nose mount bell (for high hood units)
1	BE-176	Details West/Side hood mount bell (for chop nose units)
1 pkg	MU-265	Details West/MU hose, 4 cluster set
1 pkg	AH-267	Details West/Locomotive air hose with bracket
1	RA-276	Details West/Can type radio antenna (2 per package)
1	MU 1501	Details West/ MU Stand (early EMD GP)
1	DS 1404	Details West/Drop step
1	190-522	Cal Scale/Coupler lift bar
2	N/A	KV Models/Cab sunshades (available on eBay)
4	N/A	KV Models/EMD Windshield wipers (single blades for high hood units. Available on eBay)
5	N/A/	KV Models/EMD Windshield wipers (4 single blades + 1 double blade for chop nose units. Available on eBay)
4	N/A	KV Models/Illinois Central cab wind deflectors (eBay)
1	N/A	HO scale chain (available on eBay)
1	N/A	Clear plastic for wind deflectors (I used spare windows from a Walthers structure kit)
1 bottle	16-73	Badger Precise Design/Illinois Central Orange Paint
1 bottle	R99091	Model Master/Flat White paint
		Tools/supplies
		Testors clear parts cement
		Pin vice with #80, #75 and #75 bits
		Micro tweezers (various point shapes/sizes)
		Modeler knife
		Sandpaper
		Small pin
		Magnifying glass
		Small desk lamp or room with excellent lighting

Publishing Deadlines

<u>Publishing Date</u>	<u>Submission Deadline</u>
March 1 Edition	February 1
July 1 Edition	June 1
September 1 Edition	August 1
December 1 Edition	November 1

Region Round-up

South Red River Valley
Mathew Lentz, Supt.

Lots of work is being done on our T-Trak project. The donation we received from an anonymous benefactor is starting to take shape. Shadow Reddington recently rebuilt two of the buildings that were partially constructed. Kevin Dill has taken up the challenge of building the AHM 5806 Coal Mine in N-Scale and we expect this to be a major feature of the entire system. This model has appeared many times in old photos from around the TLR in mainly HO scale, but in N-Scale it should really shine with its great capacity for operations and its stunning scenery potential.

Tom Gay conducted a successful operating session on his fabulous Soo Line railroad. He is getting close to having the massive ore dock in service. Several members are also getting close to a couple more certificates in the AP program. We hope many of you can come up for the Spud Valley train show in October.

No. 1 Northern Division
Ian Plett, Supt.

The No.1 Northern Division HO Free-Mo Group had their AGM early June at Simon's place. The smoked ribs were delicious. We have four new modules available for our next set up which we hope will be in late September, but it depends on the next phase of opening up places to more people in Manitoba.

Our next division event is early August we are planning on going rail fanning at Portage La Prairie, Manitoba.

Region Roundup—model railroad-related events in and around the TLR

Cancelled	NMRA National Convention St. Louis, MO
Cancelled	29th Annual Rail Fair Copeland Park, La Crosse, WI
Sept 19	Twin Cities Model Railroad Museum Hobby Show and Sale 9am-3pm, Mn State Fairgrounds, St. Paul, MN
Decision pending	Spud Valley Hobby Show Delta by Marriott, Fargo ND
Oct 25	9th Annual Model Railroad Show 9am-3pm, Hwy 3 West, Hampton IA

Minutes of the NMRA Thousand Lakes Region

Board of Directors Meeting

May 28, 2020 via Conference Call

1: Call to Order. President Jay Manning called the meeting to order at 7:03 pm

2: Roll Call: Secretary Art Suel conducted attendance. Present were President Jay Manning, Vice President Caleb Van Der Brink, Secretary Suel, Treasurer Tom Gay, Public Relations Director Kevin Dill, Contest Director Kennedy Gauger and Convention Director Scott Nesbit. Division Superintendents present were SRRV Matt Lentz, DSED Terry Anderson, MRV John Givan and SED Gerry Miller. NMRA Canadian Director Fred Headon, MMR was in attendance too.

3: Convention Updates

A: 2021 Bismarck/Mandan. Tom Gay updated the board on plans for this convention. The Railroad Museum in Mandan is planned for Thursday evening. Friday will have clinics and the Board of Directors meeting. Saturday will be clinics and Banquet. There will be a Chinese auction at the banquet. Items donated for the 2020 convention that was cancelled due to the pandemic will be transferred to the 2021 convention. Gauger reminded Gay that he needs to know the size of the contest room and it must be lockable. DSED is working on updating the manufacturer's list for the auction and will deliver the updated list to the convention committee.

B: 2022 Brainard Convention. Suel informed the board that the hotel and dates have been secured. A \$1000.00 deposit has been sent to the hotel. The date of the convention is Victoria Weekend, May 19 to May 22, 2022. Hotel is the Arrowwood Lodge at Brainard Lakes.

4: Discussion on Youth Guidance Directive from National. The board discussed the NMRA At-Risk Directive. For more information on this directive, go to the NMRA website or follow this link; https://www.nmra.org/sites/default/files/nmraorg/bod/EHB/nmra_at_risk_persons_policy.pdf.

5: Grant Requests: There was a grant request from the Dakota Southeastern Division. Superintendent Terry Anderson explained that the division is requesting \$1000.00 to construct T-Trak modules. The division will match the grant. The division will exhibit the T Trak modules with HO modular railroad. This will show that the hobby is more than just HO. Also, a way for individuals to get involve who do not have the room to construct a layout. Givan moved to approve the request with a second from Lentz. Motion approved with no opposition.

6: Other Business: ther3e was none.

7: Feedback from Divisions on coping with the pandemic: President Manning wanted to hear how the divisions were communicating with members. Anderson of the DSED said members were staying in touch with each other. He believes the pandemic could be a boom for the Hobby.

Headon, MMR mentioned the Edu-Train on the national website has great clinics for members to partake in. Nesbit informed the group there is a national clinic day the coming Saturday on the NMRA Facebook site.

Givan, MRVD, told the board that the division clusters are geographically separate but is using Facebook for communications. Headon reporting for the No. 1 Northern that members were planning on attending the Winnipeg and Regina train shows that were cancelled. Members are going to have a backyard BBQ in early June.

Lentz, SRRV, informed the board that members of the SPUD Valley Model Railroad Club were showing up to work on the layout during this time. There was also an operating session on Tom Gay's model railroad recently. Miller, SED, said the division was inactive due to quarantining to protect members.

Headon, MMR reported to the board that the National Convention in St Louis for 2020 has been cancelled due to COVID-19. The 2022 convention in Birmingham England was recently cancelled due to the city of Birmingham being awarded the 2022 Commonwealth Games. Long Range Planning 2025 is underway with the regional Presidents. The NMRA Standards and Conformance Department is resolving issues with LCC/OpenLCB.

8: Adjournment. Nesbit moved and was seconded by Gauger to adjourn. Motion passed. Meeting adjourned at 7:53 pm.

Respectively submitted

Arthur C. Suel

TLR Secretary

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