



The Hot Box

*The Newsletter of the
Eastern Canada Division
of the NMRA*



Issue # 27 March 2025



Peter Mesheau's little logging locomotive – see story inside

This Issue's Index

- [President's Message](#)
- [Call Board](#)- the NMRA and the Region
- [Balloon Track](#) - News around our division
- [Switch List](#) – From how-to's to history, etc from ECD members.
- [F.R.E.D.](#)- links, laughs and everything else

The official publication of the Eastern Canada Division of the Northeastern Region of the National Model Railroad Association.
ISSUE #27

Editor

Lou McIntyre
506 847-7009
<mailto:louismca2012@gmail.com>

Division email address:
<mailto:easterncanadadivision@gmail.com>

President's Message



Greg Williams (President, Eastern Canada Division)



Wow, March already. Who knew January could be so long and February so short? As we move into the Spring of the year, we will enjoy several train shows and, at the end of May, the MFMR convention. Then Summer, and that always brings the NMRA convention. This year being held July 14-19 in Novi, Michigan. I've heard from several Canadian friends that they're thinking of or have already cancelled plans to go because of the current political situation and the animosity floating around about the relationship between the USA and Canada.

Now, I won't get into any political discussion or the pros and cons of visiting the USA. What I will say is that when it comes to Model Railroading and especially our relationship with other model railroaders, we can't let anything get in the way. It's important to have a hobby to remain sane in this crazy world, and if we allow political events and arguments to get in the way of our enjoyment of our hobby and especially the relationships we form with others who share our passion, we are the losers.

It's important for us to maintain the friendships we have always had with other model railroaders all over the world. The Internet has been a great tool to expand our reach and I believe interpersonal relationships are what makes the hobby even more rewarding than just playing with trains. I encourage you to not allow your relationships to devolve into animosity over what is sure to be a temporary situation. Keep your hand upon the throttle and your eye upon the rail.

Our ECD Executive and Board of Directors:

President:

Greg Williams - gregw66@gmail.com

Vice President:

Steven McMullin -
mcmulls@nb.sympatico.ca

Secretary:

Fergus Francey -
dasfergmiester@gmail.com

Treasurer:

Doug Margison -
douglas.margison@gmail.com

Board of Directors:

- Achievement Program Chair – James Whatley - jawhatley@bellaliant.net
- Membership Chair and Webmaster - Rob Leathley - rleathley68@gmail.com
- Communications and Hot Box Editor - Lou McIntyre – louism@nbnet.nb.ca

Call Board - the NMRA and the Region



<https://myemail.constantcontact.com/Announcing-the-Concord-Flyer-2025-NER-Convention-.html?soid=1118295456332&aid=3ltnBxvsrrg>



NERx Returns on March 17-20

The NERx event will return each night from 7:30-11:30PM (Atlantic time) for all four evenings

The organizers are still looking for entries for the Model Showcase segments. We know there is a lot of fantastic work being done by our members and we would love to be able to share it. During NERx, we will show the work of our members in between the clinics and layout tours and on the NERx website. It is a fun opportunity to share what has been going on at your workbench, layout, or behind the camera in the last year. They can be in-process or a finished model.

Submit your entries into the NERx Model Showcase by March 6. Just identify yourself, write a description of the work, the scale, and attach 1-3 photos to an email addressed to showcase@nerx.org.

Balloon Track – News around our Division

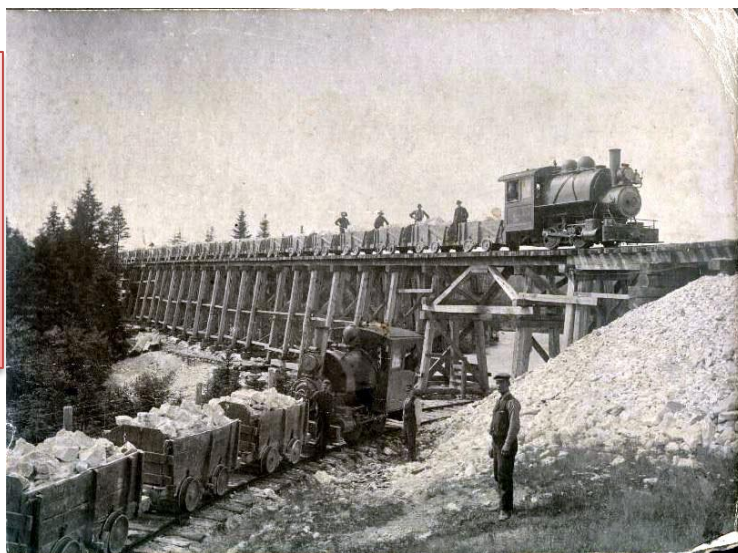
Monthly Workshops

Our thanks to **James Whatley** for organizing the monthly presentation series and to **all our presenters** who have given so much of their time and knowledge this season



Thursday, **March 13, 2025**, at 08:00 pm ADT (UTC-3): **“Refurbishing Structures”**, by RMC Author George Dutka. *(Note this will be a week earlier than usual because of NERx)*

Thursday, **April 17, 2025**, at 08:00 pm ADT (UTC-3): **“The Railways of Albert Mines”**, by CBC Radio Roadside History Columnist James Upham.



Thursday, **May 15, 2025**, at 08:00 pm ADT (UTC-3): **“Using PhotoScape X to Enhance Your Pictures”**, by Chris Lyon. *(See some of Chris’ Photoscape X work in an article at the end of this Hot Box issue)*

Stay tuned for the Zoom log-in details, which will be sent out via email a few days prior to each presentation.

Adding a Wastewater Treatment Plant on the Chaleur & Restigouche



*Ronald Grandmaison is a retired educator and longtime HO scale modeler living in Campbellton NB. He is a frequent contributor to the Hot Box and a presenter to both the Monthly Presentation series and to the MFMR annual conventions. In this article, we get to follow the process of how **Ronald** created this excellent scene*

“For many years, I had always wanted to build a wastewater treatment plant for my home layout. My previously built one on my UMG modules for my Restigouche Pulp and Paper didn’t have the level of details but I was very pleased with it. It was a definite eye catcher at public shows.

Two areas of my layout had enough space for such a facility and could justify such installations. C.I.L. plant in Dalhousie was for a long time my favorite choice. The second area was to the right of Atholville Pulp (Fraser). The base height of the finished scene was also a factor. Dalhousie was at 49 ½ inches compared to Atholville at 51 ½ inches. The closer to the eye level is much better. I also considered if the scene could be damaged by layout operators.

I struggled with the rectangular and circular models. I bought different circular cake molds but in real life, these would require a custom-built bridge, a platform on most sides and a rotating agitator. In this case, it would be stationary as moving parts could damage the modeled water surface. Searches on the internet helped me but I realized that my model would not be like the actual one in Atholville, NB. I would have to deal with this as I always say it is **plausible**.

My second consideration was that this section had to be built sturdy on my benchwork (too far away in reach, water pouring completely level, airbrush painting ... and the list goes on) and be removable in case it needed to be fixed. While building it, I added two small non-permanent structures that hid two small screws that were like handles that I could grab and remove the treatment plant. The following images show the progress of my project. The **WW-1, WW2** ... correspond to the pictures so noted.

WW-1 has a 1x3 piece of pine added to the underneath of the 1/4-inch furniture quality

plywood. Glued with carpenter’s glue. It is held in place with clamps and let to dry for a few hours.



WW-2 shows two rectangular shape of styrene Evergreen .250 X .625 (Part number 414) glued to plywood and held in place with clamps. Styrene is glued with CA. After it has dried numerous runs of CA are run down all joints. After waiting for a few hours this process is repeated. Right after the glue is placed CA accelerator (BSI Industries) is added. This is a very important process as Magic Water or

Epoxy Water almost always finds itself running through cracks.



WW-3: the in-progress assembly sitting in the area it should go.

WW-4 : At this stage the styrene and plywood base have been airbrushed with a concrete color. Since water often affects paint, I waited two weeks before proceeding to the next step.



WW-4

WW-5: Unfortunately, this is where I should have taken more pictures. I started by adding a pipe (green) parallel to the basin. I bent the piping (white) and drilled holes in the green pipe. The pipes had to be bent vertically (up the outside of cement) horizontally (the side of the basin) vertically (inside the basin) and finally horizontally (pipes in the bottom of basin I had one chance to do this bending right. I had to discard a quite a few pieces. These white pipes were glued to the bottom of the basin with CA. These were allowed to dry for a few hours before going to the next step. These white pipes



WW-5

represent air being pumped in the basin through holed in the pipes which will be under water. This process oxygenates the water, so its level of oxygen allows it to be released in the environment. Sometimes this process requires Liquid Air. I was ready to start pouring the water.

The assembly was set on a table, and I adjusted it so it would be completely level and held it in place with clamps. Cardboard and newspapers were used. I placed the small level in both directions and on top of the side of the basins.

Magic Water: Please note that every mixture must be stirred for at least 5 minutes. Every time, I set my timer for 7 minutes to be on the safer side. Tints are poured in after around 2 minutes of stirring.

I mixed the first batch of Magic Water and poured it in the basin with the pipes. I was careful not to overfill (pour too much) pouring it only in the middle and letting it run to the exterior walls of the enclosure. This came out great and I knew that the Magic Water would have a small effect on the painted bottom of the basin. I had mixed a little more than needed and it was discarded.

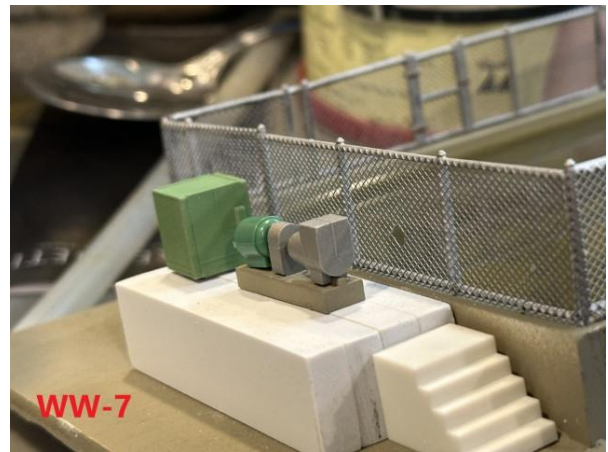
The second batch was mixed using Woodland Scenic water tints murky water. This was the amount that I needed for the darker basin. I started pouring and the color was too light. I had made a mistake. I stopped pouring. I immediately added a darker color tint and a little too much tint was in the mixture making it a much darker color. I had to work fast. I stirred for a minute or two and was worried if the two colors would blend in the basin. I poured the darker mixture above the lighter color and used a wooden stick to mix the two different batches together. I was careful not to go too close to the edges or rub the bottom of the basin.

The two basins were covered with a sheet of paper and let to dry for two days. After two days, the surface was still sticky, so I let it dry for another two days. When one makes water (not with the paint) it must be covered until it is completely cured. If dust particles fall on them, they will be permanently part of your project.

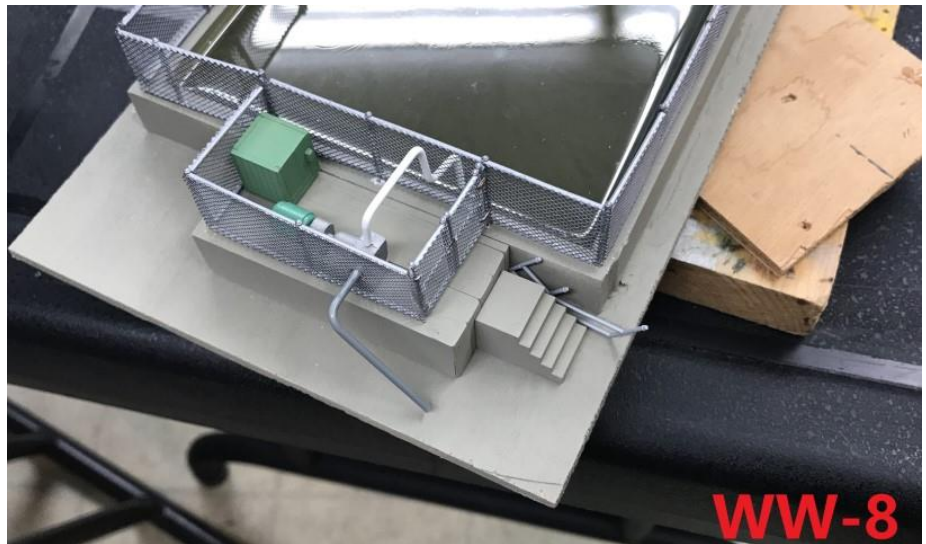


WW-6: Scenery was removed from this section of the layout. Fortunately, this section was foam only. I carved a hole and did the first test. It is not show, but I had placed the project parallel to the wall on the right, but it did not look good. I removed more foam and set the treatment plant at approximately 30 degrees with the side wall.

WW-7: I drilled holes and installed the Woodland Scenic fence. Instead of following the instructions, I barely cut the parallel rods at the top and the bottom of some sections. This allows me to overlap the fencing material on the vertical posts and it makes the fence much sturdy. I made two styrene platforms, searched quite a while for steps, test fitted Plastruct PM-3 pumps. I had previously figured out the water piping flow and very carefully drilled small holes in the mesh fence and increased its size using a slightly larger bit. The caliper was a great help in determining the sizes of holes during this whole process.



WW-8: Platform and stairs were airbrushed. Pump and electrical panel installed with the proper piping. Extra fencing added to protect area access to the pumps. This process included having hinge doors at the proper areas.



WW-9: I cut and added pieces of loan wood that would serve as similar to a picture or door frame so the wastewater assembly could be dropped in.

These pieces of wood were held in place with CA. I covered the whole area with plastic sheeting and airbrushed the wood with concrete color. This did not come out too great, so I added a first layer of like ballast on the area close to the basins. Again, it did not meet my expectations. It looked more like cork. Another dust of a different shade was glued on top. It is not the best but will have to I will have to accept for now. The scenery on the back wall was done, adding ground foam, trees and different texture.



WW-10: There was no way that I could give the illusion of depth on the right-side wall. I cut cardstock paper and glued it to this wall. I drew how the background mountains could be and removed the cardstock. I did not want these too high since they would have stirred the eyes towards them. These were cut with scissors and reglued with masking tape. This technique is called pochoir chinois – a stencil technique). White glue was carefully applied with a small brush pressing on the bottom of the stencil in a downward motion while applying carpenter's white glue. The cardstock was removed. With a straw and very little burnt grass, I blew on the straw so the greenish would glue to the wall. Two other shades of yellow and lighter green to represent the Sun shining and different shades on the mountains and the effect of clouds.



WW-11: The photo of the scene after step WW-10.



WW-12: A few trees have been added to the scene. I test fitted a few structures... abandoned and opted for the next one in the photo. It is barely visible... and that is what I wanted.



WW-13: Scenery has been updated. Three lampposts were weathered and added on the right of the basins. I used a mixture of light green foliage, medium green foliage, Heki 1576 and different flower colors and shades including gravel. I went very light on the glue using a mixture of 1 to 7 and applying different layers until the scenery would pass the central vac test.





WW-14 , WW-15 & WW-16: Side walls of the abandoned structure were airbrushed green. Pan pastels colors were used to weather the structure. Foliage was added to the bottom of the walls to simulate out of control



vegetation and building was seated in its proper place against the wall. Since it is early fall, a few trees have been fallen leaves on the ground."



WW-17: The completed scene !



Cover Story

*Multi-scale modeler, **Peter Mesheau**, tells the story of the creation of a small logging locomotive shown on the cover of this issue*

"Back in the late 60's, the late Bill Coffey scratch built his version of the little Falk locomotive, once used in the logging industry of northern California. Pictures of the model and a plan appeared in Finelines magazine. The model is still with us (as is the prototype) and can be found on Bob Brown's Tuolumne Forks On3 layout. <https://www.youtube.com/watch?v=zHwOkIcrKdY>

I've always had a soft spot for this little workhorse. A couple of years ago I got James Hilton in Wales, to tear apart a Bachman 4 wheel Porter and make it look like the Falk. He also widened the gauge to On3. I took James' hard work, made a few adjustments, added details, final paint, and then weathering. The little loki will run around the saw mill like the prototype, on my future on3 logging line. The car is from Sierra West. Logs are from my Kent County, NB woodlot".



Douglas Margison's Turnout Control



*The Eastern Canada Division treasurer, **Douglas Margison**, has been demonstrating his scratchbuilt turnout control and signaling system at Modeling Day events and in Modelers' Corner at train shows*

"This is my journey to building a signaling diorama.

Modeler's Corner at train shows provides the Eastern Canada Division an opportunity to demonstrate modelling techniques and to provide guidance to model railroaders on their projects. I like enhancing my layout with animation: lighting, sound, signaling.

This project was an off-shoot of fabricating a turnout (Figure 1) for the NMRA Achievement Program's (AP) Engineer Civil Award. I would need to demonstrate that a locomotive could run through the turnout in both directions → I would need a DCC power source. I used a Fast Tracks' template to build a #6 HO turnout using Micro Engineering Code 83 track. For turnout control I wanted to try something new

to me - Fast Track's Bullfrog with a SPDT switch -normally used to control frog polarity, but I would use it to control relays (top right side of the Signal-Relay Board in Figure 1). Dropping track feeders for DCC power, the back rails were classified as "Red" and the front rails as "Black".

I decided to build a DCC-EX command station rather than purchasing a commercial system — using DCC-EX (<https://dcc-ex.com/#gsc.tab=0>) guidance. Their highly recommended WiFi connection was a MakerFabs WiFi Shield that would sit on top of a Motorshield. This shield had to be purchased directly from the manufacturer in the US — cost 9 USD + 25 USD shipping. I decided to try the next option which was an external WiFi module. I was not successful at getting my throttle to connect to the DCC-EX WiFi network. So I turned to my N-scale command station solution — a Raspberry PI (on left side of the DCC-EX Command Station in Figure 1) WiFi connection to throttles.

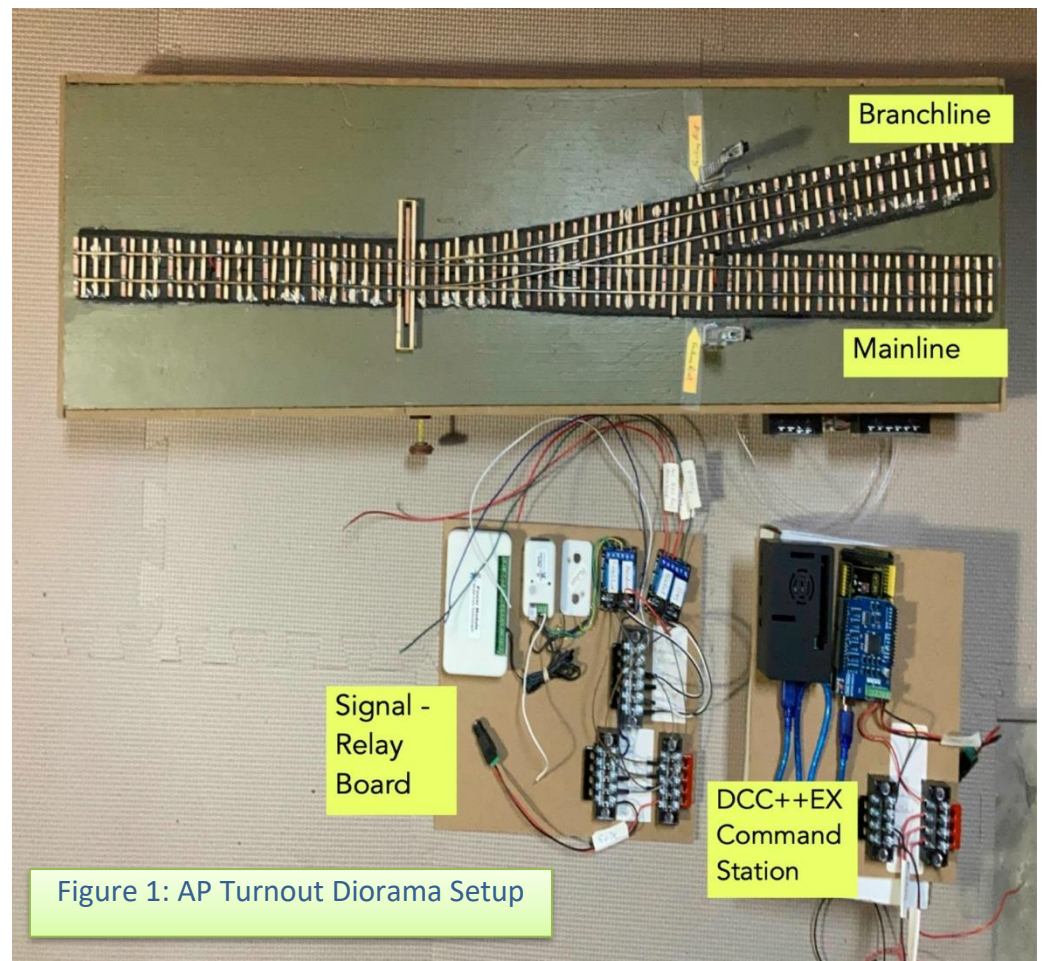
For the AP award, I wanted to enhance the diorama with turnout signaling from the trailing point perspective and what I would call "red rail protection" based on a YouTube video by DCC Guy Larry Puckett. He suggested using one of the internal SPDT switches in a Tortoise switch machine to control power to one side of rails on trailing side of the mainline route so that a train would stop before entering the turnout when it was aligned to the branchline or spur. The dead section needs to be long enough to give locomotive lots of stopping space before fouling the turnout.

On my HO layout a locomotive going 25 mph took 15" to stop when I hit the stop button. I chose the Red Rails to gap for the dead sections on both the Mainline and Branchline, starting at the Fouling Point. As things are very compressed on the diorama, the point of stopping before the Fouling Point (FP) is closer than it would actually be. Entry to the protection blocks is an imaginary point about 6" to the right of the right edge of the diorama.

The Bullfrog's SPDT switch was going to have to control:

1. Frog polarity
2. Powering the aligned Red Rail (e.g., Mainline Red Rail when turnout is aligned to the Mainline)
3. The turnout signals

Two OptoCoupler relays (upper right corner of the Signal-Relay Board in Fig. 1) would be the means of controlling all three, with the Bullfrog controlling the relays. Another opportunity to try something new.



What signals would I use? All signaling on my layouts use LED signals made by Custom Signal Systems — a rather expensive option for this AP diorama. I turned to Model Train Technology (MTT) — Jim had fibre optic signals which would be a lot easier to connect up.

For turnout signaling I would need Red and Green aspects = 4 fibre optic cables to insert into holes in two MTT Signal Controllers (upper middle section of the Signal-Relay Board in Fig. 1). Due to space limitation of the diorama, the signals are closer to the FP than they should be — somewhere near the right edge of the diorama, which would allow the Mainline signal to be on the right side of the track.

Well that was it for the AP diorama, after which my mind turned to how I might use it for teaching purposes at Modeler's Corners.

I decided that I would like to integrate block signaling with the turnout signaling. How would the diorama be oriented from a travel and signaling perspective? I decide that the right side of the diorama was East and the left side West. Due to space limitation signaling would be limited to travelling in a Westward direction.

I would need "point" detectors at the entry and exit points of the Red Rail Protection blocks. Two point detectors would be on the diorama and two would be 6" off to the right of the right edge of the diorama → on an electronics board. The turnout and the single track Mainline to the left of the turnout could be monitored with a current detector (I chose an NCE BD20). The "off-diorama" signals would be 3-aspect LED signals — if the Red Rail Protection block was occupied then the aspect on the signal before the East entry to the block would be Yellow.

What would I use as point detectors? This would be a great opportunity for a teaching moment based on my experience with DIY (Do-It-Yourself) IR detectors. Under-the-track IR detectors depend on reflecting an IR beam off the bottom of locomotives and rolling stocks. I discovered that the beam doesn't reflect well off of black (colour of the underside of most locomotives). Above-the-track does better because this time detection depends on breaking a beam, rather than on reflecting the beam. On the Branchline I would use Infra-Red (IR) obstacle detectors.

The Eastern entry-exit IR detector would simulate under-the-track train detection. I constructed a card to trigger this detector with one-half black and the other half grey. The Western entry-exit IR detector would be above-the-track on the diorama. This setup takes up a lot of space compared with MTT Precision (laser) Detectors, which I decided to use on the Mainline.

Moving East to West on the Mainline, a card would be used to trigger the East side Precision Detector (PD). The locomotive would then travel Westward to trigger the West PD then into the turnout where it would trigger the current sensor. Moving East to West on the Branchline, a card would be used to trigger the East side IR detector (black side won't trigger; grey side will). The locomotive would then travel Westward to trigger the West IR detector then into the turnout where it would trigger the current sensor.

The means of integrating block signaling with turnout signaling would be through an Arduino Nano clone and a third electronics board. The Nano would run a program (called a "Sketch" in Arduino language) to monitor first the turnout position and then based on its position the program would monitor the current sensor and appropriate East side sensor for which is triggered first — to determine which of four sections it needs to be in:

1. Mainline
 1. West side
 2. East side
2. Branchline
 1. West side

2. East side

I made the Sketch for Branchline entering from the East side more complex than for the others. There is an imaginary spur East of the Branchline's Red Rail Protection block. There are two options for a train entering this block from the East:

1. Continue Westward
2. Back out Eastward into the spur to spot / pickup some cars — the train could later re-enter the block and continue Westward

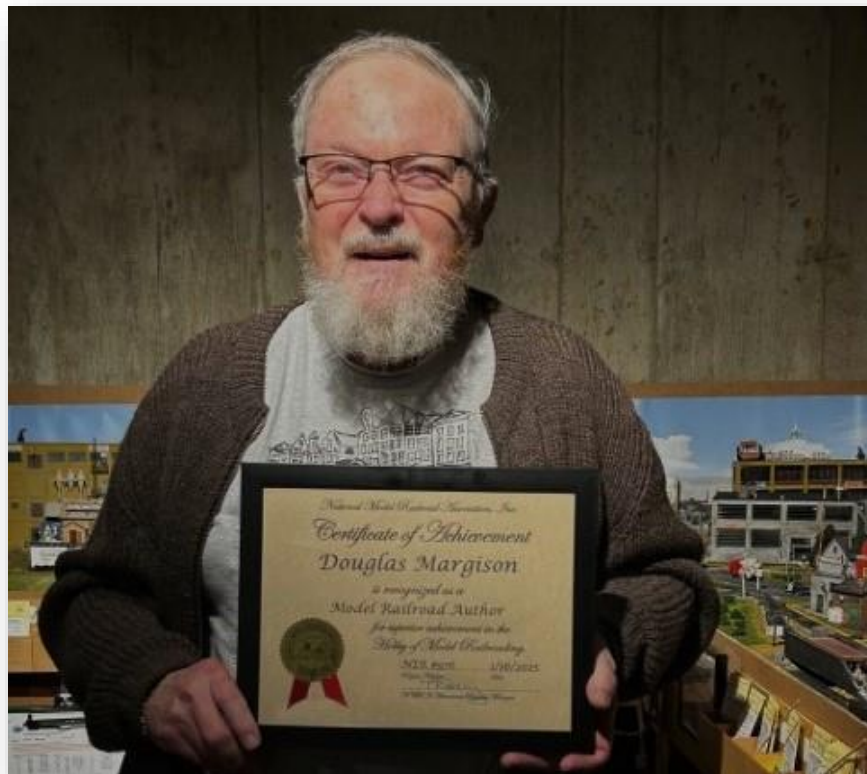
This part of the sketch could also be used for a grade crossing.

I found the enhanced animation diorama generated lots of discussion at train shows with persons considering adding signaling and other animation to their layouts.

For information on train detection and signaling, go to the Eastern Canada Division's website at <https://easterncanadadivision.org/> → click on "Welcome to the Hobby" in the upper menu → scroll down to the bottom of the webpage — clickable links are on the right. "

ACHIEVEMENT PROGRAM

Congratulations are in order to **Douglas Margison** for having earned his Certificate of Achievement as Author. The previous article is a fine example of the work that **Douglas** puts in to creating and documenting his projects – very well deserved !

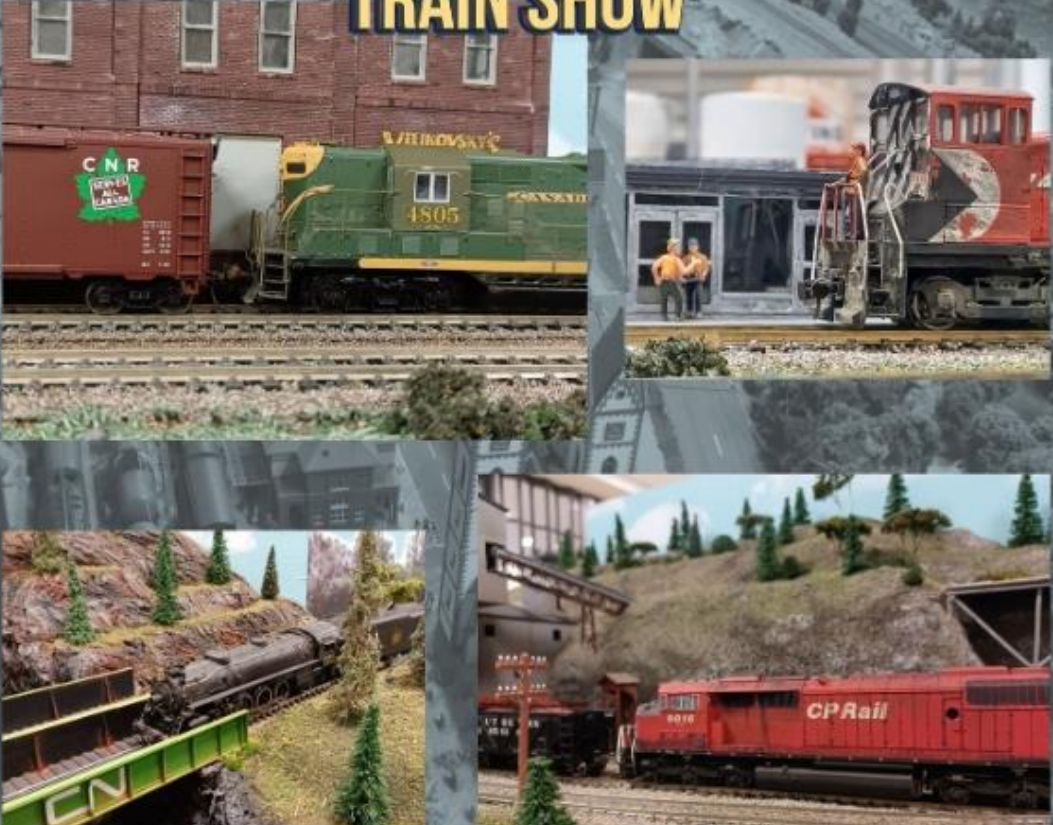


Events

Amherst, NS –

ALL ABOARD!

CUMBERLAND & AREA RAILWAY CLUB TRAIN SHOW



SATURDAY

March 8th 2025
AMHERST CENTER MALL
9am to 4pm

**Displays
Vendors &
MORE!**

Admission \$7
Children under 6 free
with accompanying adult

Moncton -



APRIL 19th, 2025

9 AM TO 4 PM

**COVERDALE REC CENTER 50 RUNNEYMEADE RD
RIVERVIEW N.B.**

**DISPLAYS: HO SCALE, N SCALE & LEGO
SALES TABLES & MODEL DISPLAYS**

Contact: Louis leblanc (506-383-9425) louispleblanc@gmail.com

Modelling Day –

April 12



The Eastern Canada Division – NER - NMRA INVITES you to ATTEND

Modelling Day

RiverCross Church 61 Forbes Drive, Saint John, NB E2K 0H7

Saturday, April 12th, 2025 9:00 am to 4:00 pm

Participants are invited to bring:

- A model project
- Small hand tools
- A cutting mat (or the equivalent) to protect the tables
- A small desk lamp
- A few additional completed or in-progress models for display
- Your lunch, water, and snacks (nearby restaurants are also available)

The admission is \$ 20.00 per person (cash only), payable at the door. Any net proceeds will be shared between RiverCross Church and the Eastern Canada Division (to support programs such as our Thursday Zoom nights).

Please confirm your participation by contacting:

Greg Williams gregw66@gmail.com 506-279-2232

*This event is open to **ALL**, regardless of group affiliation. While the focus is primarily on railway models, model makers in any field are welcome! We are gathering to build and display a few models, exchange ideas, and chat. Enjoy an informal slide show or video in the early afternoon.*

Notes:

- Spray painting, including airbrushing; grit blasting; and the use of heavy-duty power tools is not permitted at the venue.
- Tables, chairs, and some extension cords will be provided.
- Although this is not a buy and sell meet per se, those wishing to sell, trade, or donate one or two pieces are invited to bring them along.
- The venue has asked us to please clean up after ourselves and leave it as we found it.
- All participants are requested to practice handwashing / sanitizing immediately upon entry. Anyone with a cold, flu or other contagious illness is asked to please reconsider attending.

Shearwater - May 3rd & 4th



The Shearwater Hobby Show is an interesting event on the calendar - it's not really a Train Show but a couple of the usual suspects make an appearance; Freedom Miniatures and Mount Denson Models were there last year, as well as the Narragansett Bay On30 group, The Dartmouth Club and the Eastern Benders. There is a strong focus on military, ship and aircraft models (and the model contest is returning this year), but it's an interesting show in support of the Aviation Museum, so definitely worth checking out! The event takes place on-base at Shearwater, in **The Sea King Club**, Saturday and Sunday the 3rd and 4th of May, from 10AM til 4PM.

All aboard

**2025 MFMR CONVENTION
AND PUBLIC SHOW
WE'RE ON THE RIGHT
TRACK TO BROOKFIELD**

HOSTED BY THE TMRA

MAY 23, 24, 25

EVENT SCHEDULE TO FOLLOW



SALE TABLES, LAYOUTS IN HO, N, Z

AT DON HENDERSON SPORTSPLEX

55 CARTER RD, BROOKFIELD

**FOR LAYOUTS OR SALES TABLES, CONTACT HOLLY
WHITTAKER TRUROMODELTRAINS@HOTMAIL.COM**

The Newfoundland Railway

Chris Lyon posted these and many more photos on the Facebook group [The Newfoundland Railway](#), and I asked if he would be willing to share some of them in the Hot Box. The photos were originally taken by Gary Pollock in the late 1960's, edited and enhanced by Chris using PhotoScape X. On that note, on May 15 **Chris** will be presenting "Using PhotoScape X To Enhance Your Pictures" – see the section "Monthly Workshops" above

The photos were taken on a typical cloudy day for the Scotian Railway Society to experience all that Newfoundland Railways had to offer. 1968

804 was the only one of the six G-8's that had a winter hood.





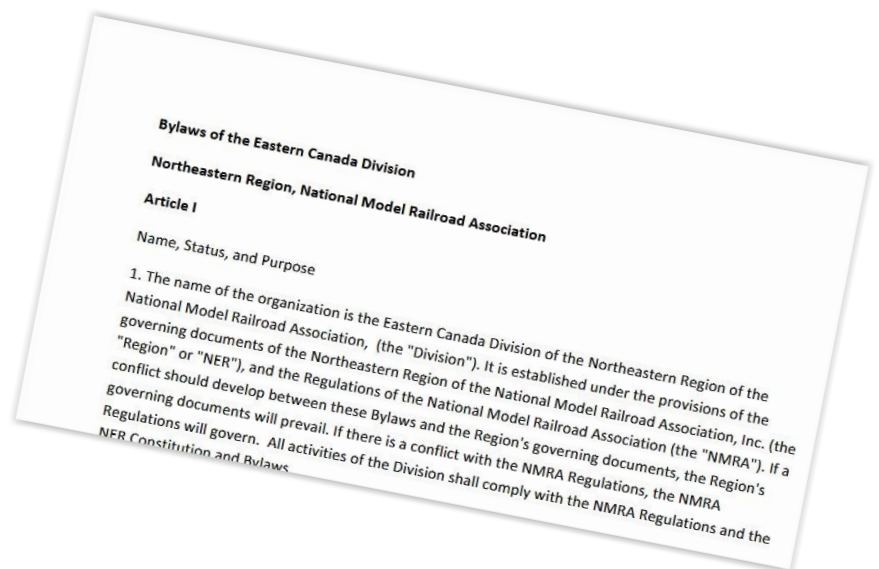
Taken at St Andrews. For more photos, go to the [Newfoundland Railway Facebook page](#)



Eastern Canada Division Constitution

In the past few months, our guiding document has been finalized. To review it, you can access the Constitution on our web site

<https://easterncanadadivision.org/>



The F.R.E.D.

Mitchell O'Brien has provided us with a great closeup of CN 3105 in the Veterans' Tribute paint scheme taken in November 2024 after delivering a potash unit train to Saint John Courtenay Bay



We need YOUR input! If you want stories or history from your local area, it's up to you to share them. Send any projects, stories or reviews you want to share to us at our e-mail address: easterncanadadivision@gmail.com or to louismca2012@gmail.com