the

MainLine

magazine

NMRA Australasian Region Directory

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REGARDING ARTICLE CONTRIBUTIONS

All members of the Australasian Region are invited to submit articles of a railway nature for publication in the 'MainLine' magazine.

I would appreciate all articles to be sent to me in an editable format, such as 'Word, Pages, text, email, but not pdf, and high resolution photos sized between 1 to 5mb.

Please send your articles to editor@nmra.org.au

NMRA Australasian Region Directory (cont.)

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NMRA-AR Disclaimer

New Articles

Regular Features

the Cover Photo

Union Pacific Westbound Unit Potash Train, passing through Cheney, Washington State, on Duncan Cabassi's N Scale Layout, 'UPBNSF Joint Division'

Editor's Comments

While the greater number of our members are still being locked away from experiencing some degree of normality with everyday life, as well as not having regular contact and association with our model train friends and associates, it is good to hear and experience that there is a lot of modelling activity still happening on-line with 'Virtual' meetings and events.

The NMRA have been running many 'Virtual' events recently for members to participate in via Facebook. These events can also be viewed at any time on YouTube if you missed or wanted to recap on any subject that you wish to review. Worthwhile checking it out if you haven't done so already. Many divisions have also been running their own '*Virtual Events*' successfully, and this all goes a long way to helping us keep on track with our modelling.

In this edition of MainLine there is another good mix of differing subjects covering many aspects for what is the '*Greatest Hobby in the World*'.

We start off with our feature article where Duncan Cabassi describes the inspiration and process behind how he built his Large N Scale layout, '*the UPBNSF Joint Division*'. This is one of the largest N scale layouts in this country, being one which can easily cater for well over a dozen operators at any one time. Having personally operated on Duncan's layout many times, I can say if you ever get an invite to participate, then do yourself a favour and go for it!

We then have the first in a series of '*Trackside With the SM*' articles from Arthur Hayes - MMR. This first article is titled 'Making it Look Real' and covers many of the ways to create a sense of realism that you can add to your layout to help Make it Look Real.

Have you ever wished you could run a train on another model train layout, by using your computer? Then Brad Anderson will explain how he does this by operating trains on a model railroading associate's layout in the UK., in his article '*Setting up For Remote Ops*'.

Gerry Hopkins - MMR then outlines how to set up an easy to understand '*Car Cards and Way Bill*' system to give a purpose to operating your railroad.

Arthur Hayes - MMR then returns to describe a neat way to create '*Reinforcing Weld Mesh Loads*' for your open wagons, by using easy to obtain materials and just as easy processes to create the loads for your open wagons in any scale.

Last month I asked in this segment for readers of MainLine to click on a link when you read the July/August edition, so that your committee (*and your editor*) could get some appreciation as to how many readers there are of MainLine. The results from that survey are outlined on page 41. I expect (*and certainly hope*) that this first survey may not be a true indication of our present readership, but it is a start. Sometime during next year or at at time when train shows and conventions are happening again and at a time when I can hopefully address all categories that are listed in 'Regular Features' on page 4 above, we will outline another more detailed survey which will look in detail at what our

members are looking for from the pages of the MainLine magazine.   But as mentioned , it is probably best to wait until the pandemic restrictions have passed and we get back to attending meetings, train shows and conventions again before running that survey, so that we are all well and truly getting into the model railroading mode again......M

Merv Bagnall

Editor - MainLine On-Line

THE PRESIDENT'S REPORT

NMRA-AR Presidents Report 2020-8-16.

Since the last issue of MainLine things are still noticeably quiet because of the virus and its limitations. A couple of the Divisions have held meetings with limited numbers and social distancing. At the same time some of the 100% Clubs also have opened. However, it would appear there will be no large gatherings until late in the year and more probably it will be 2021 before the restrictions will be eased.

During the last couple of months all of our members have been renewing their memberships and magazine subscriptions and it has been pleasing to see that so many are continuing, considering the loss of income so many have suffered due to the virus.

The changed format of this publication has been enthusiastically welcomed and further improvements will be coming forward in the next couple of editions that should encourage more of you to read this publication. I am sure there are many of you who have experiences to tell about your layout with building, or some other persons layout which will benefit other members. So please put pen to paper and include photos and send them to our Editor in order that we can enjoy these articles. The Editor would like to hear from any member who has any practical suggestions as to improving the content of the magazine.

Since the last edition, the ARC has appointed a Secretary to fill the vacancy since the AGM. Trevor Phillips from Div. 1 offered his services and has been accepted, at the same time Div. 4 (West Aust.) has elected Frank Goode as their new Super. Congratulations Frank. A big thank you to Rod Tonkin for his work in that position over several years....M

Graham Young.

Graham Young

President.
16th August, 2020

The UPBNSF Joint Division

An N Scale Layout Designed for Operations

by Duncan Cabassi

Over the coming months I will issue a series of articles about my layout, THE UPBNSF JOINT DIVISION. This will include detail on how I got to where I am today and the people that have helped the layout development and helped me to mature as a person.

This article will be an overview of the layout and its transition from inception in 2006.

The series of articles that will follow will define the layout in more detail.

- •Layout Concept & Planning

- •Construction – Phased approach

- •Operations

- •Future Plans

1 Looking into the LB1 at Palouse Canyon on the UPBNSF JD

2 Looking into LB2 including the Rogers Run Branch

3 Looking at the connection between LB1 - LB2 including Joso Trestle

LAYOUT STATISTICS

Layout Size:

17.3m x 9m (57' x 29' 6") across 2 separate layout rooms, Layout building 1 (LB1) **1** and Layout Building 2 (LB2) **2**.   The layout is connected by 3 removal modules **3** and is Double deck with 2 helixes. LB2 has a branch line built on 2 roll in, roll out modules.

Mainline length: 137 m or 450'

Scale: N Scale

Era: Modern (Basically 2005 on)

Prototype Representation:

Union Pacific and Burlington Northern Santa Fe (UP, BNSF)

Area Modelled:

The Union Pacific from Portland, Oregon to North of Spokane, Washington.

Control System:

Digitrax DCC, with 8 power districts, 95% of turnouts are controlled by switches on the fascia via Tortoise or equivalent switch machines. Signalling and other funky electronics are in the future.

Operation:

Currently the layout is "operated as a transportation system" about 6 times a year.

Car forwarding is done by JMRI Ops Pro with an additional software enhancement.

- •Trains across the layout are controlled by a dispatcher using two-way radio communications.

- •Traffic flow and schedule are dictated by the Operations manager.

- •The layout can accommodate 20+ operators however the sweet spot is 14 -16.

- •We run through freights, Manifests, Locals, passenger and unit trains as per the prototype.

## OVERALL TRACK PLAN LAYOUT
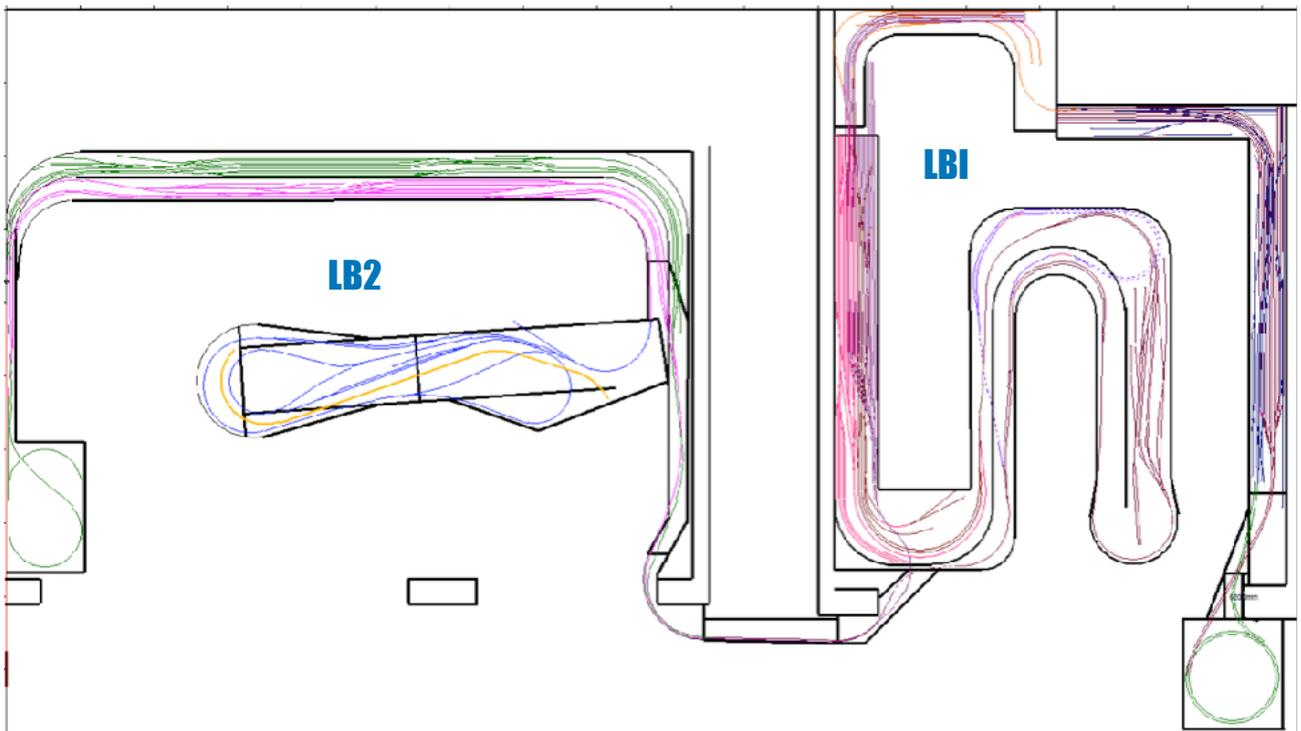
Track Plan of the UPBNSF JD - Both decks
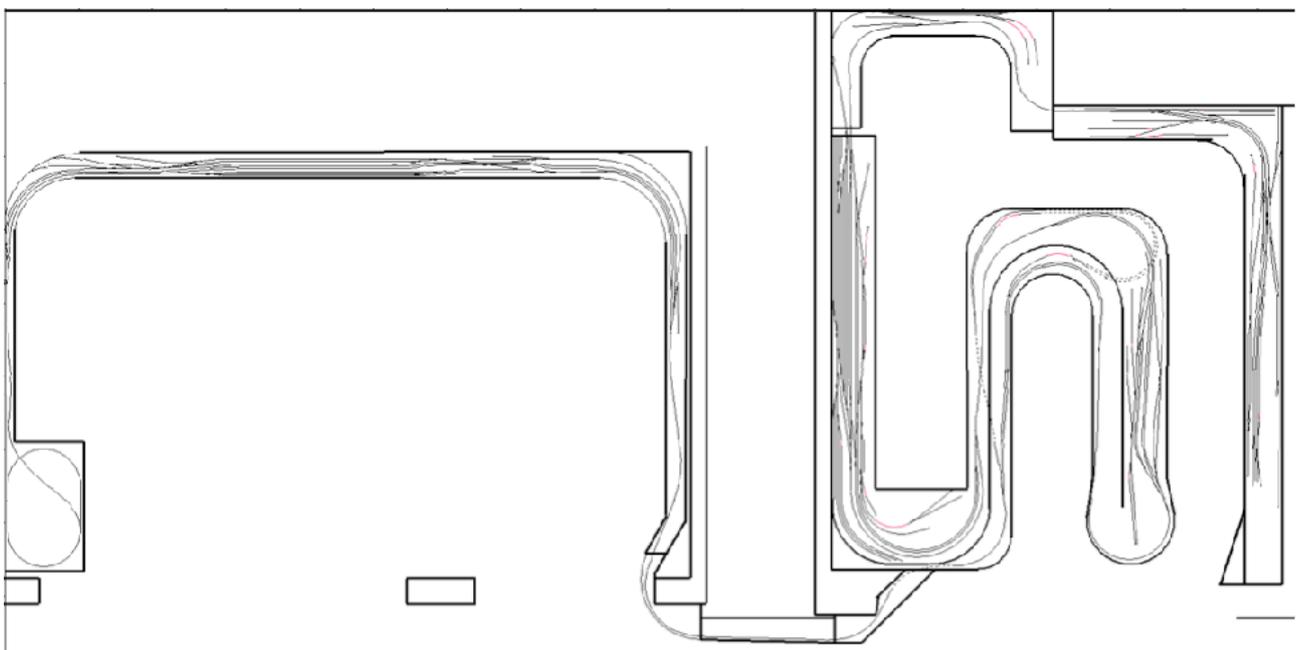
Top Deck of the UPBNSF JD

The layout is constructed across 2 buildings and these are known as, Layout Build 1 (LB1) **1** and Layout Building 2 (LB2) **2**.
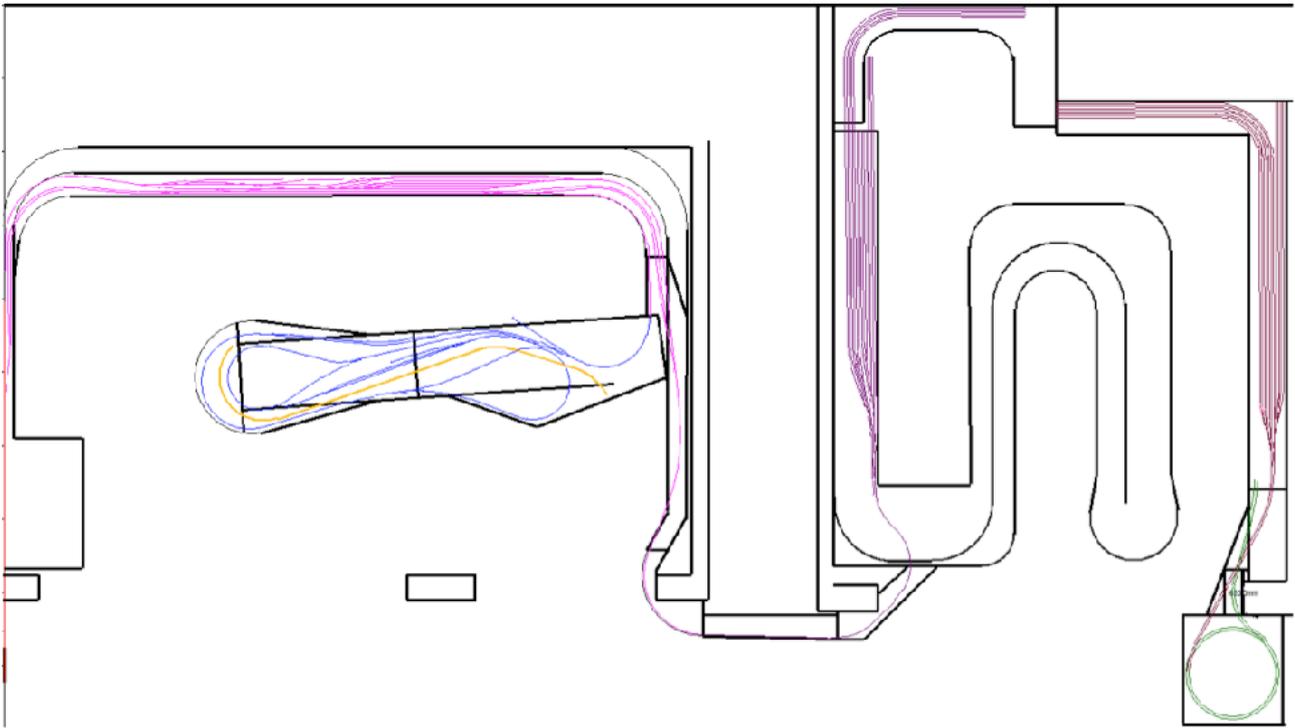
Lower deck of the UPBNSF JD

LAYOUT TIMELINE

In 2006, due to a career move, I had to relocate to another city. Once settled in the new role and new location, I found and purchased a house that served the family purpose well. However, saying this, I do believe the main attraction of the house for me was the fact that it had a separate 8 m x 6 m garage (LB1) that spelled out LAYOUT ROOM!

For me, this brought about a new era. Using the lessons learnt from previous layouts, I now had the opportunity to Plan, Design and Build that dream layout.

There were several positive factors to building my dream layout and some of these were: I was now a reasonably experienced modeller; I was old enough to have started to formulate what I liked and what I didn't within the hobby; I could use new materials and techniques across the layout; I was now aware of where and what I wanted to model; and I now had a network of modellers that I could tap into to do operations, which was my ultimate model railroading goal.
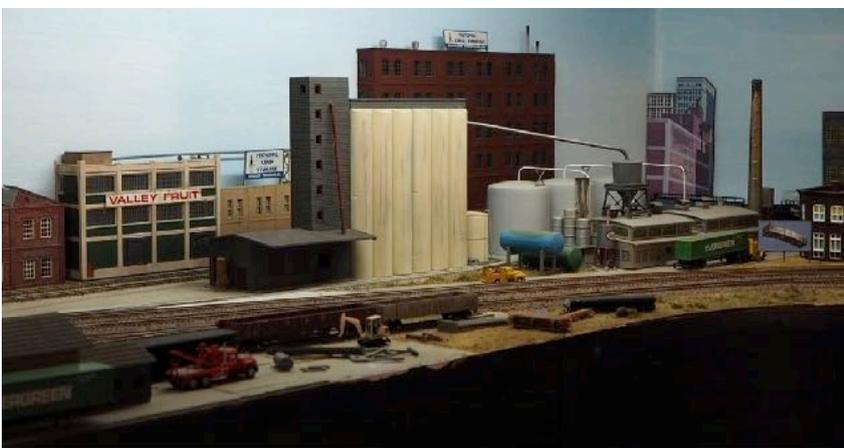
4 Part of the original switching area now known as Millwood

2007 was time to test things. Initially I built a small switching layout in one area of the LB2 garage **4**. This was done quite specifically

to trial Atlas and Micro engineering track and turnouts as well as different styles of turnout throw mechanisms. I ran trains on this for a couple of months and I had others come along and do the same whilst I observed. This was a test bed for which brand of track I wanted to use, and the turnout control methodology I would apply throughout the layout build.

5 Looking at Trent Avenue which is the theme industrial location in the recessed garage area

The switching layout was subsequently expanded from either end to accommodate larger operations.

To the East of the switching area I installed a shelf, and this would become the East Staging yard. To the West of the switching area I extended the layout into a 3 m x 2 m recessed area of the LB1 garage **5,** and then along a 6 m section of the garage wall. The 6 m section would become the main classification yard on the layout called Yardley **6**.

From Yardley yard the mainline swung around a 180-degree curve to a centre peninsular and this was where West staging was temporally located. 2009, I expanded the layout again. I added the Cheney industrial area **7** and extended the mainline to a point
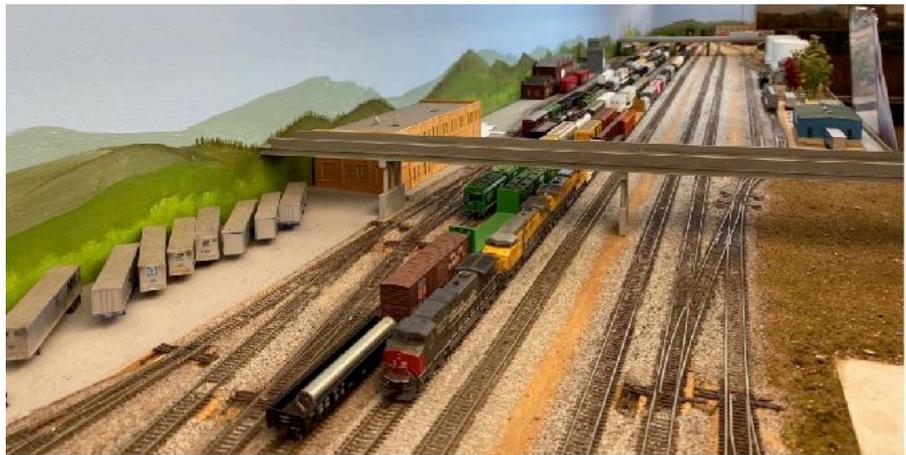
6 Looking East along Yardley Yard
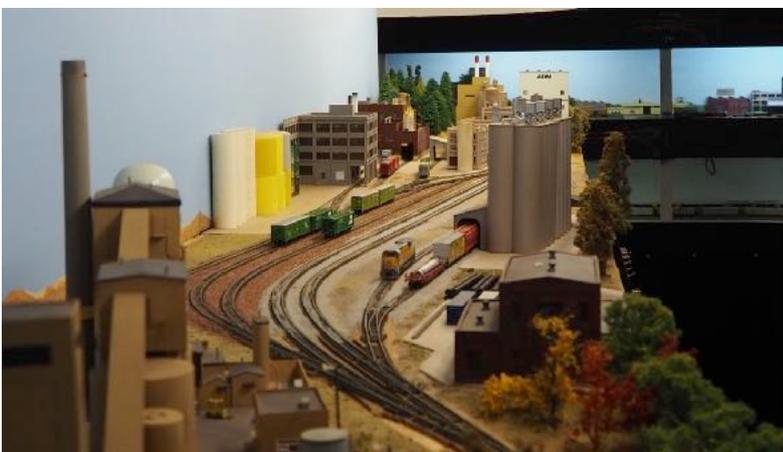
7 Cheney

where I had to include a spiral and relocate West staging to the lower deck **8.**

In 2012 my life's circumstances changed significantly. This left me with the thought that, you guessed it, I would do another expansion.

This time the plans were grandiose but very clear to me. I now firmly had my goals set on

tripling the size of my layout over a period of the next few years and I had a clear vision of what I needed to do and how I was going to do it. This would end up being what I call the phased approach.

My approach was to extend the layout into the house garage (LB2). I designed, constructed and installed 3 removable modules to "Bridge the Gap" between the two garages **10**. Once this was achieved benchwork and track laying was expedited as I had some

8 The final Product. The Spiral is behind the L/H side Mountains

exhibition layout modules ready to install into LB2. West staging was located at the end of the top deck. This became the next end of the line and would remain this way whilst testing of the layout continued.

9 Milestone event of completing the original JD on 3rd March 2012

The 'Milestone' Event of completing the final scene on the 3rd March 2012 is captured in **9** and is the final product of the original JD as it was in the LB1 garage only. It was after that time that I started the expansion into the LB2 house garage.

In 2013 phase 2 commenced. I relocated the West staging yard from the upper deck, to the opposite end of LB2 on the lower deck. I then removed the abandoned helix from under the original layout in LB1 and repositioned this at the very end of the layout in LB2 where west staging was previously located.

10 Bridging the Gap engineering

This is where I would tie the upper and lower decks together with the helix **12**. Constructing the connecting modules for the lower and upper decks went quickly and within a month the layout was back in operation. I had now added the Boardman industrial area **13.**

In 2013 I became aware that my layout would be on the layout tours program for the Australian 2015 N Scale convention. From this point I decided to focus my attention to scenery and electrics, so for the

11 Wallula, Top deck

next 2 years (which ended up being 5 years), there was no more expansion of the JD.

12 Helix #1

In 2018 the expansion bug hit me again and I decided that I would perform phase 3 of the expansion. Now what started out as phase 3, ended up being phase 3, 4 & 5 over a period of 18 months.

First off in January 2018 with the help of my good mate Trevor Phillips, we relocated West Staging back into LB1, under Yardley Yard **14**.

As this had already been planned for previously, the benchwork was already ¾ completed. Within 1 week I had trains back up and running on the lower deck.

Then without taking a breath, I commenced construction of the 'Rogers Run' branch line **15**, which became phase 4.

I envisaged this engineering gem to add another operational dynamic to my layout. Thus far it has not disappointed. It now provides an avenue

13 Boardman

for online inter-industry exchange of products. It has a power plant **16**, bio-fuels and limestone crushing plants to name but a few of the industries on the branch line. The construction took some planning and engineering as I had to maintain the ability to park two vehicles in the garage when not in operation, remember those golden rules!

14 West Staging at it's current Location

I achieved this by having two removable modules that bolt together and connect back into the main layout. Vehicles are obviously not in the shed when I'm operating the layout. However, when we are not operating the layout, the modules are disconnected and rolled out of the way to allow vehicle access. The Rogers run branch line has been a significant operational enhancement and as I said previously has not disappointed in adding interest to our operations sessions. Rogers run was officially opened in July 2018.

15 Rogers Run

**16** Power Plant location

Phase 5, the last but not the least ambitious project. This was the relocation of the East staging yard from its upper deck location, to the lower deck and lengthened of the staging tracks to accommodate the long unit trains I run on the layout. East staging is shown in **17** where it currently is located.

The effort to do phase 5 and have the layout back up and running in November 2019 was a large undertaking. It is now running and I'm enjoying every minute of it.

17 East Staging

Last but not least. The satisfaction I get of watching a group of 15-20 people, spread out and operating my layout, several trains running at once, the transportation system working as I perceive it should, the railroad communications chatter on the radios and the smiles on their faces - makes this effort all worthwhile.

In finishing I would like to thank all those who have helped me achieve a layout that I'm proud of. I still have a long way to go but would not be here if I did not have the encouragement and support of the operations crew on the UPBNSF Joint Division and my family who put up with my passion for this hobby. .....M

"Trackside with the SM"
Making It Look Real

by Arthur Hayes - MMR

When we look back to the early history of our railways/railroads they had a purpose or a reason to be there, in other words they had a job to do. In short they were to open up the land, carry supplies to small developing towns/settlements, carry produce to markets and get people around.

When we are out and about train spotting/rail fanning, or observing a train in our community, the train is a very small part of what our eyes see. This gives the modeller a huge issue, we don't have the open spaces around our trains like the prototype. A small station yard **1** on a branch line could be a kilometre long, in HO we are looking at over 11 metres. For most of us it is out of the question.

By following a few do's and don't's, I think we can still make our railways look real and just like the prototype. A few years back I sat in on a presentation given by a well-known US modeller/author on much the same subject. From time to time I like to read his blog and keep up with what he is doing. In short, less is more, he indicated that a lot of US modellers come to him to build a layout, nothing to flash, just an 8' x 4' layout. The layout needs to cover New York to Los Angeles, plus they have a couple of boxes of

1 A Small Station Yard

Walthers "Cornerstone" kits they would like on the layout with sidings. It just not going to fit.   He also indicated for a railroad to look real, 50% of the layout needs to be green or have open space **2**. On "Westgate" I didn't quite achieve that, I have some areas of green and open spaces between the various scenes to give an appearance of distance.

2 50% Green or Open Space

Other ways I create distance is have the train pass through a cutting in the hill side or behind buildings. Crossing over a small creek/river can break up the scenes **3**. When passing behind structures etc., keep the track accessible and in reach so it can be cleaned etc. When we look a towns that the prototype run through, not all structures relate to the railway. The local store uses the railway for their supplies, but don't have a siding. The supplies come to the Goods Shed and the customer picks it up in their Ute. We still have a purpose for a railway/railroad to run to that community.

3 Crossing a small bridge to break up a scene .. & ..
4 Sweeping curves and 'S' bends

Most of us have a circle of track for continuous running and it follows the edge of the baseboard, for most a rounded corner rectangle. The straight sections can be made into sweeping curves or maybe an "S" bend **4** could be added to give change in track direction. It is a good idea to add a reason into the scenery for the changed direction.

Others say you need to trick the viewer eyes, you need to draw their attention away from the layout as a whole and allow the train to draw them into the scene the train is running through **5**. By following the train from scene to scene the layout will look much bigger.
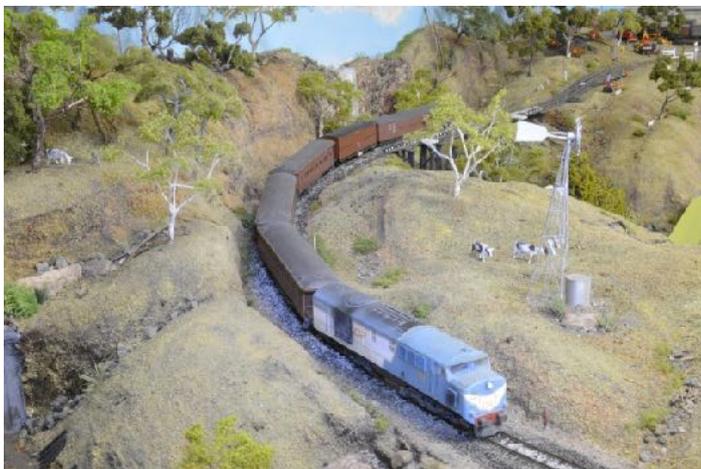
5 Allow the train to draw you into a scene

This brings me to the next part, I feel each scene needs to tell a story. This hooks the viewer into the scene they are viewing, plus it lets you explain what going on in the scene. Many of us have been around for a few years and recall a very different time period to now which we called "the good old times". Often we model an era where things were very different, the steam era was very different to the diesel era. Structures and the way of living need to reflect the era. Each year as I have holidays I remove all loose items from the layout into storage. After returning from holidays I spend a few weeks on the layout, dusting, cleaning track, vacuuming and an odd bit of maintenance to ensure trouble free running. In returning the removable items to the layout (vehicles etc.), they are going back into different scene, changing the scene.

Much the same will come up with structures, they will be too large and you will not have the space to add them to the layout. It's the atmosphere you need to capture. If scratch building your line-side facility, you can often reduce the footprint or selective modify the structure. Quite often the same facility doing the same job can be located at another town which is a different size.

My grain silos is a single row of three, most are a double row of three **6**. Just half the size of the original, unless I tell

6 Prototype Silos could have 2 Rows of 3 Silos

you, the structure fits the bill and provides a facility that requires rail service. When I modelled the sheep and cattle yards, the loading ramp was to long for the area I had allocated, much the same for the holding yards, both were reduced to fit the space.

Another trick is in numbers, use odd numbers. My silos have three columns **7**, not two or four. This applies to adding people to a scene, trees etc. They tell me that a simple act of using odd-numbers helps the brain to process and absorb the scene. Three seems to be the magic number, but 5, 7 and 9 work as well. When you see odd numbers of things, your eye is forced to move around the scene and makes it interesting. It's more appealing, memorable and effective than even numbered groups. In other words you absorb the train in the scene and not the whole layout. The train will pass from scene to scene.

7 Use odd numbers

Another way to expand the layout is to add low relief structures along the back scene/sky board **8**. Many kits can be reduced in width, or reduced into various sections. You make the front of a structure with the sides that was just a few inches wide. Structure of this mature still allow for internal detail to be added that can be viewed through the windows. This also can take away the right angle between the base boards to the back scene…**M**

8 Add low reef structures along a back scene

Setting Up for Remote Ops

By Brad Anderson

L iving in rural Australia and being one of the younger NMRA generation does have its draw backs, being three hours to the closest model railroad club and also having very few peers of my age. However as the saying goes, you only get out what you put in.

Being introduced to model railroading as a seven-year-old and only moving away from the hobby when girls and cars became of more interest, I quickly rejoined when I had a son of my own. In the space of ten years technology has taken a large leap. When trying to find answers to my questions and problems I instinctively turned to the internet.

In the world of DCC, open source software and microcomputers, I am sure you have all heard of JMRI and a Raspberry Pi. My new layout build is in the early construction stage. By the end, I am aiming to have a multi deck layout with the ability to have eight to ten operators for a three to four-hour operating session. It was at this point I reached my first group of questions, the first being how do I fit eight to ten people in a 6m x 3m area? and the second, what DCC system offers the best solution for ops and user-friendly throttles?

The answer to the first was easy! I would not overcome this without reducing my layout footprint. That was not going to happen! Second question was not so clear cut, with every DCC system having their own pros and cons. A fellow modeller here in Australia was assembling Sprog Pi's & introduced me to the idea of having my 'Pi' and eating it to.

The Sprog Pi system uses a Raspberry Pi 3B+ with a Pi-Sprog Hat (*Hardware Attached on Top)* from Sprog DCC. This takes care of the DCC throttles, with the added benefit of a computer that is running JMRI for as part of the Sprog system. As the Raspberry Pi is a minicomputer, you can attach multiple DCC systems via the USB ports. This enables the user to add block detection from one manufacturer and signalling from another as the layout evolves. Using JMRI as a building block has the added benefit that while building my Roster, Tables and Panels as I go, the integration of other systems will be a slice of Pi due to the groundwork already started.

1 Remote Login With Gordy Robinson, Orkney, United Kingdom

The Sprog Pi comes as a plug and play system so I will not be covering the setup of this. The Sprog Pi comes pre-configured to operate your layout via WiThrottle in JMRI, the Raspberry Pi's WiFi and a smart phone or device. With half the battle won, it left me

pondering the notion of fulfilling my need for two person train crews whilst having less operators onsite. While tinkering within JMRI, I found and used the "Web Server" to view my panels while testing the layout during track laying. Access was via a web browser and my local home network (all in house IP address). This had me thinking, if only half of my operators could access this while not in my train shed **1** ! Being part of the NMRAx team hosting and watching Dave Abeles clinic, I knew the technology was available, it was a matter of determining how and what settings to use.
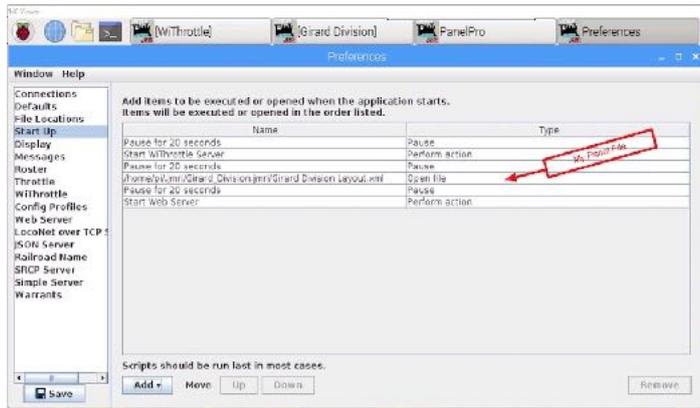
2 Choose files to start when opening JMRI

Setting up JMRI to start and launch WiThrottle, My Panels and the Web Server is the first step. All of this can be completed from within JMRI's Preferences. Under the "Start Up" tab, you can add files or parts of JMRI you want to start every time you open JMRI **2**. To Add a new start up item, click the add button **3**. Here you can pick from several options **4**.

I like to run a pause between start-up and all items I have opening. This gives the Raspberry Pi time to complete the operation. I run the sequence of WiThrottle, My Panels, Web Server. Once you have all items you wish to open upon starting, be sure to note the port numbers for both WiThrottle
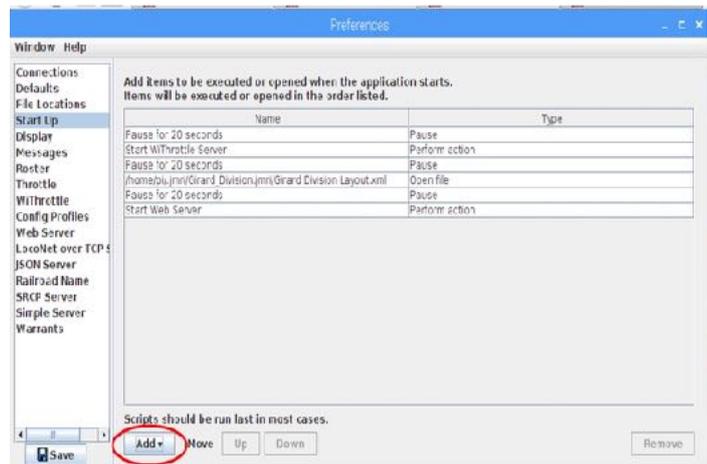
3 Click the Add button to add a new Start Up Item

(12090) **5** and the Web Server (12080) **6**. These will be used later in the setup.
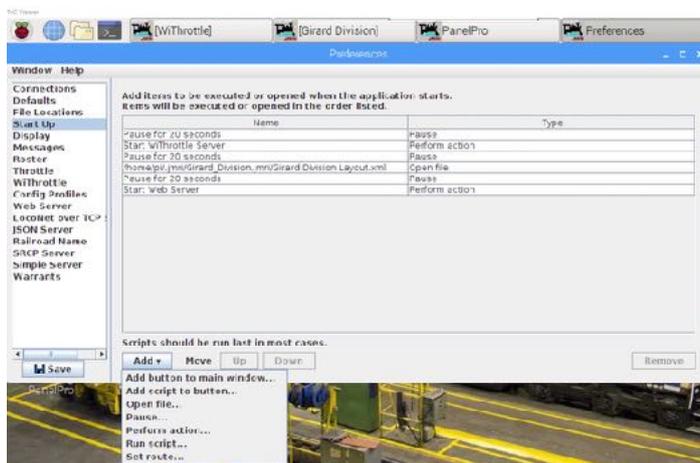
Next you need to setup port forwarding within your home network router. The home network router is broken up into two areas. The first is the local network, everything that you connect to it within your home. The local network has an IP address assigned to every item connected, regardless of the connection type.

4 Pick from several Options
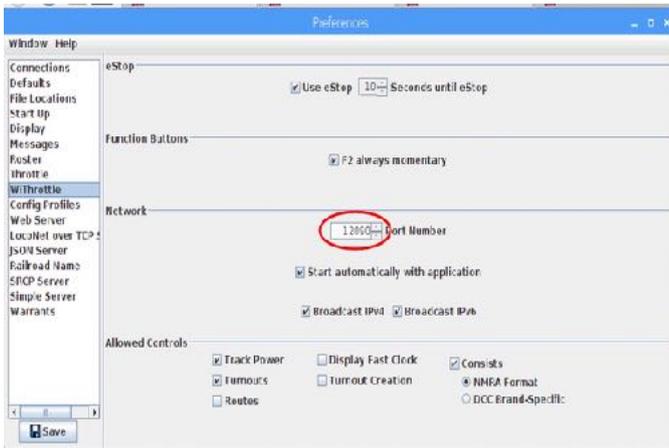
5 Note the port for Wi-Fi Throttle

the ports I want to access from the internet.

The second area of your home router is the IP address your internet provider assigns you. This normally changes every time you reboot your home router. To find this you can do a simple google search "What's My IP Address" **9**. Here you see mine is 220.245.174.17, note this down as it is needed when you issue this connection address out to your operators. As most internet providers here in Australia do not supply you with a static IP, I see this as added security as after every Op session I simply restart my

PC's, Printers, TV's and Phones. Even the router itself has an IP address, this is normally 192.168.1.1. Every router is different when it comes to port forwarding so it's best to read the manual. For my TP Link router, I open a web browser and enter the IP address 192.168.1.1 into the address bar. I then find my Sprog-Pi under the client list of connected devices (192.168.1.108) **7**. Under the advanced tab, and NAT Forwarding, I setup virtual servers. Here I enter two servers **8**. I do this to keep the port arrangement directed at only

6 Note the port for Web Server

home router and will have a different IP address. The above setup takes around two minutes before any Op session to reconfigure. Now you have the port forwarding setup and the external IP address for your router, you can use these to connect. First, I connect

7 Pick Sprog-Pi under connected devices

to WiThrottle using the "Engine Drive" app. In the "server address" you enter your external IP address and the WiThrottle port number and click connect (NOTE I'm only connected via my mobile 4G network, meaning a different internet connection then my Sprog-Pi) **10**. Once connected you can see your JMRI roster under "Server Roster", Select a loco and cycle the layout power **11, 12, 13** and **14**.

Now we have confirmed the connection and access is possible,

you can log on to the web server using your IP address and the web server port (220.245.174.17:12080). You can access this via a web browser on any device that is not on your local network **15**.

From here you can access any panels that are open, web throttle and your roster. The panels work as any other panel you have in JMRI. Here you can see my overall layout. This gives the
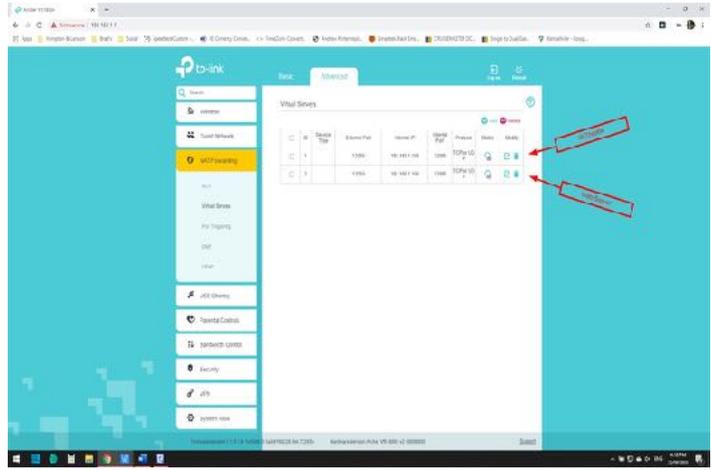
8 Setup two Virtual Servers
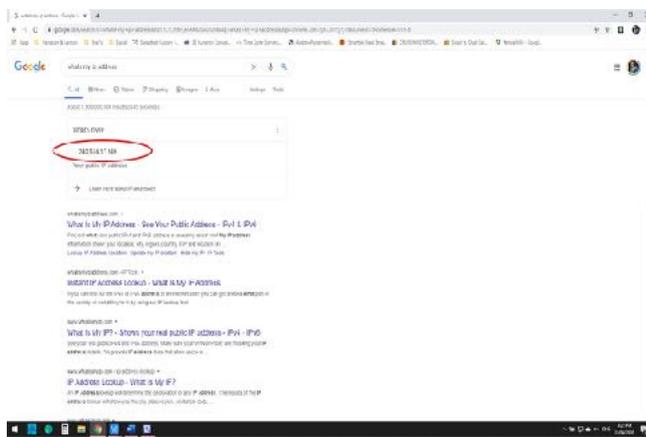
9 Find your IP Address

user the ability to change points **16**.

So, what is next I hear you ask! At the time of writing this, I am working on video and audio for the crews. I am planning to have a few remote cameras around the layout to get an overview but not to the point the remote driver can see the operation and car spot. The audio will be via UHF radio's here in the layout room. I plan to broadcast this along with the video over a video conference room online.

10

11

12

13

14

After this I will look at digital switch list and operation practice that will help slow everyone down and act like the real-life railroad. My grand plan for the layout is to have two, two-person train crews out and about the layout. With another two-person train crew working the yard. Where possible the engineer for each train will be accessing via the remote login to the system, the conductor will be in the layout room with a UHF radio and digital tablet to follow switch list and throw turnouts....
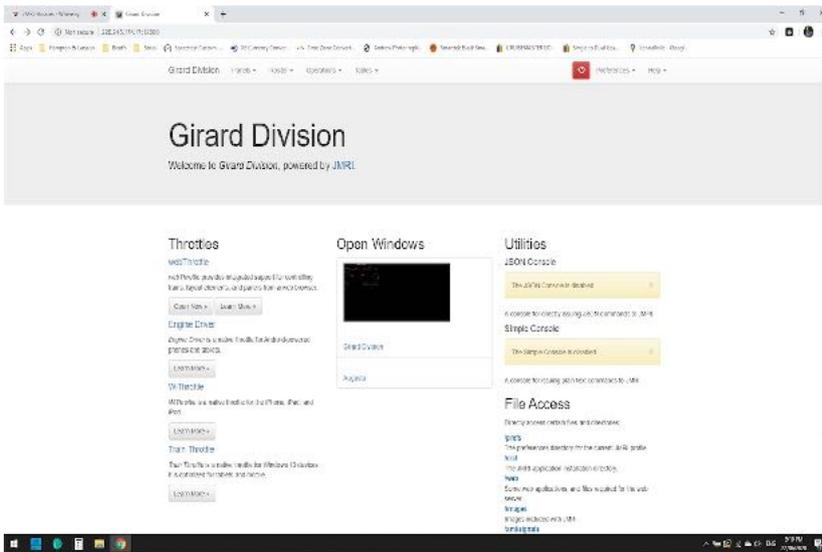
15 Logging on to Web Server

16 Panel Design for complete layout
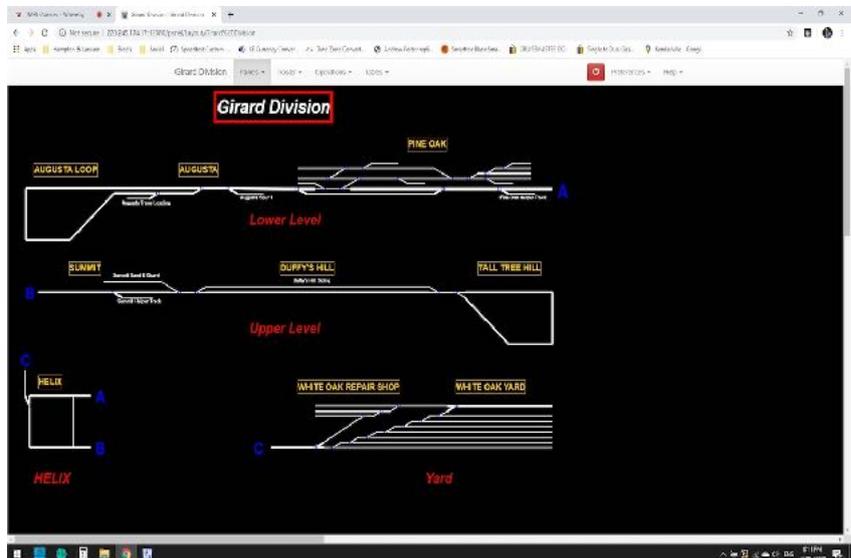
Operations on a Layout

by Gerry Hopkins - MMR

O peration means different things to different modellers. After many years of exhibition layouts where trains go around and around and around.... I now like to use a local freight running between classification yards setting out and picking up cars at industries along the way.
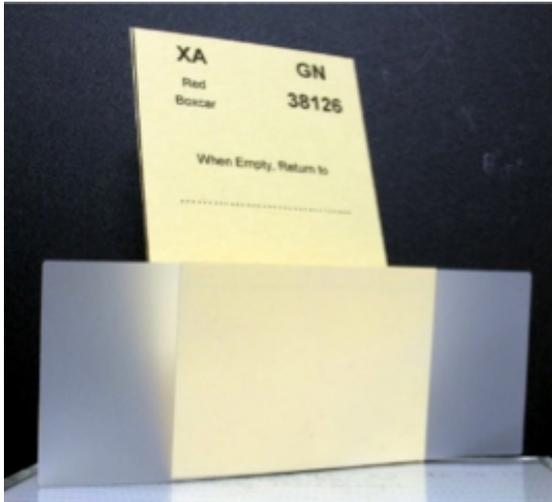
1 Car Cards

To instil a form of reality to these operations I use **Car Cards** and **Waybills.** I print the car cards on 200gsm card stock and the waybills on normal 80gsm copy paper. This system has been around for many years in various forms, my system is only a slight variation.

First, I make the **car card 1**. This is folded up as shown to make a pocket for the waybill. The folded card is held together with a clear address label. They are easier to use than sticking tape, and, I have a few thousand of them doing nothing.

Because my hand writing is so bad (no, I'm not a doctor), I print the car cards and way bills on the printer. To get the right information in the right place, I use an Excel Spreadsheet to set up and then print the waybills.

The **car cards** are the easiest part and they are also setup on a spreadsheet. All text the same way up, the reporting mark, AAR car type, car number, short description of the car, e.g. Brown Boxcar - in small print.
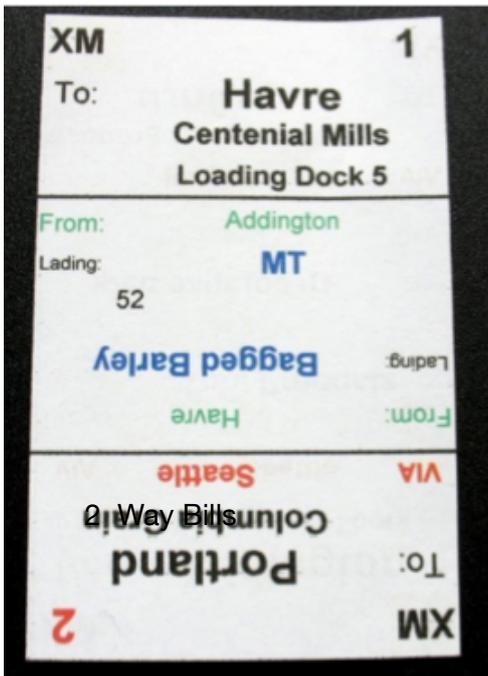
2 Waybill

The waybill **2** spreadsheet takes a little more time to set up.

I put a car in its location at each industry along with its car card. I then go around the layout and add a suitable waybill to each car card **3**. Peddler Freights are set up in the staging yards with 4 - 6 cars blocked for Shelby – the main yard.

The waybill has a section [VIA] in red, this shows the next yard destination for the car. Shelby is the yard for the division, the other "VIA" destinations are staging yards for the 'run through' trains. The cars dropped at Shelby are then sorted into "locals" for each of the industrial towns on the division.

The local has 5 cars and a caboose. The reasoning behind this is that it takes about an hour (real time) to travel to location, switch each of the industries, and return to the yard. Once at the yard, the loco has to return the caboose to the caboose track and then get its self to the loco yard for service and refuelling.
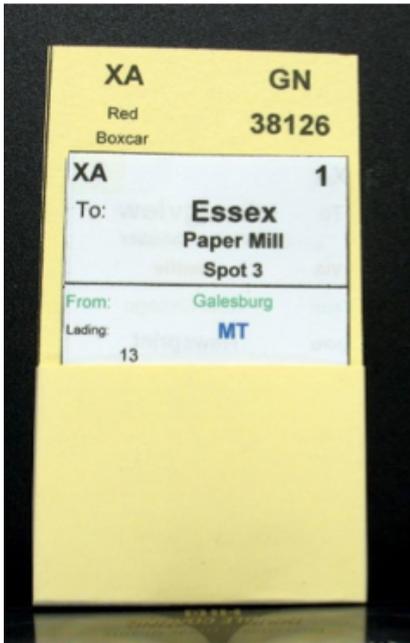
3 Car Card with Waybill

Any of the peddler freights can be diverted over the full system instead of going straight to the next staging yard. There are also "manifest freights" that just run from staging to staging, there are also a few passenger trains that run on the system.

As each car is set out, a car is removed from that exact location. This stops the industry or yard being swamped with cars. There are 86 industry "spots" on my layout. This means there can be 86 single car movements in a session, not counting run throughs or passenger trains. The cars returned to Shelby are placed in trains going to staging. If a peddler drops off 4 cars, it can take 4 cars to staging. This ensures that trains are not too long for staging. Limited space -limited staging.

Each train has a **Loco Card** and a **Car Card** for each car in the train. Each car card has a waybill in the pocket. The Loco Card has the details of the loco; type, Road Name, Number and capacity. The number is the address entered into the throttles. On the front there is a list of functions available for that loco. These lists were shown earlier – for both Australian and American Locos. The Car Card has the car type, reporting marks, number, description and "Return To" information. There is a pocket on the front for the waybill.

4 Car Cards with Waybills and Loco Card

The Way Bill has two sides, both sides show the car type, Via (the next yard), destination and commodity carried. The destination will show the town, the industry and the location at that industry.

The operator does not turn the way bill, that is done by the dispatcher between sessions.

The reverse side shows the off line town, industry, and commodity just to add "reason" to the movement.

The way bill is turned between session, we have yet to move all 86 cars in a session which lasts about 3 hours with sometimes a 30-minute break.

This is a simple operating system that I first used at the Sydney N Scale MRC back in 1975. Above you can see the cards set out ready for the cars to be moved to their new locations **4**. There is no pressure or stress on the operator to perform in a set time. Most of my switching is off the mainline so that through trains are not held up.....M

Magazine Publishing Deadline Dates

If you are submitting An Article for MainLine, your article may be submitted at any time and it will be included in a future addition where the subject matter will allow for a balanced number of differing subjects in MainLine, where the number of available articles will allow that to occur.

If you are providing a Divisional Report, it needs to be submitted prior to the cut off date of the 10th of the month of MainLine issue, to ensure the editor can complete the edition in the required time frame prior to release.

100% Club & SIG Activity Reports can be submitted at any time but preferably well before the cut-off date of the 1st of the month of MainLine issue, to ensure that their report is included in the next MainLine edition.

The following are the deadline dates you may need to know for the next two editions;-

November / December 2020
    For 100% Club & SIG Activity Reports = 1st November, 2020
    For Divisional Reports = 10th November, 2020
    Publish Date on Web = < 20th November, 2020

January / February 2021
    For 100% Club & SIG Activity Reports = 2nd January, 2021
    For Divisional Reports = 10th January, 2021
    Publish Date on Web = < 20th January, 2021

Reinforcing Weld Mesh Loads

by Arthur Hayes - MMR

Reinforcing weld mesh can be secured with web straps or chain. The number of straps/chains required to secure the load is subject to the load capacity of the equipment and the mass of the load. Each stack contains several bundles, at times they can be different size products. My load **3** is made from nylon fly screen purchased from Bunnings. The fly screen was cut into scale 6 by 2.4 metre sheets. Sheets were stacked and glued with super glue into packs. The completed packs were painted gunmetal. Various packs form the load as per the photos. Web straps were used same as described in wire coil load. (*Ed- Article will be in future edition*)

1 Has end gates & secured by 5t Web Straps

The container in **1** has end gates and the load is secured with 5t capacity web straps.

The container in **2** is owned by a different company, no end gates and the load is secured by 2t capacity web straps. Protectors are in place on the corners to stop the straps from fraying. Both loads have straps threw the load to assist in stabilising the bottom part of the load. This is called belly strapping. Note the different colours of the straps on the various loads.

2 No end gates and secured by 2t Web Strap

3 Webs on model made from plastic shopping bags

At first I was painting plastic shopping bags yellow for the web straps. This photo shows that the paint can peel off. I was not over successfully in gluing the sheets together, the super glue was not setting, most likely the weather conditions at the time…..

Special Interest Groups

NMRA Narrow Gauge SIG held at
Paul Ferguson's residence - 18th July 2020

by Steve Chapman - MMR…….Narrow Gauge SIG Coordinator

Six keen narrow gaugers, Siggers, Gary Norwood, Greg Hiley, Liam Hiley (visitor), Nick Sherdan (not in Pic), Paul Ferguson Host, and Myself Steve Chapman MMR (Also not in Pic) , had a very nice time sunning ourselves in the winter sun **1** discussing all the different world events as well as narrow gauge. Noted that the Narrow Gauge convention next year is postponed un till Easter 2022, Bummer!!

1 Some of the Narrow Garrow SIG group,

2 Gary Norwood's HOn3 scratch built freight cars (in foreground)

Gary brought along his fine selection of HOn3 scratch built freight cars **2**, he should go and try for the Cars AP.

Greg brought some On30 freight almost the same as Gary **3**, but On30 instead. NICE!!!

Paul Showed us his Proposed round house building still under construction.

Look very nice promising plenty of fine detail to see.
I took along my Barge and Tug Boat for my proposed wharf area.
I have started making up a module section with a wharf included.
Always wanted to have a go at a wharf and accessories.
Also took along part of the wharf,

3 Greg Healy's ON30 Scratch Built Cars

and two peers I made up.

Paul's layout is coming along nicely. Still changing it after all these years. He intends to fit in his new round house, but needs to modify his layout first…..

These 5 Photos are of Paul Ferguson's Layout
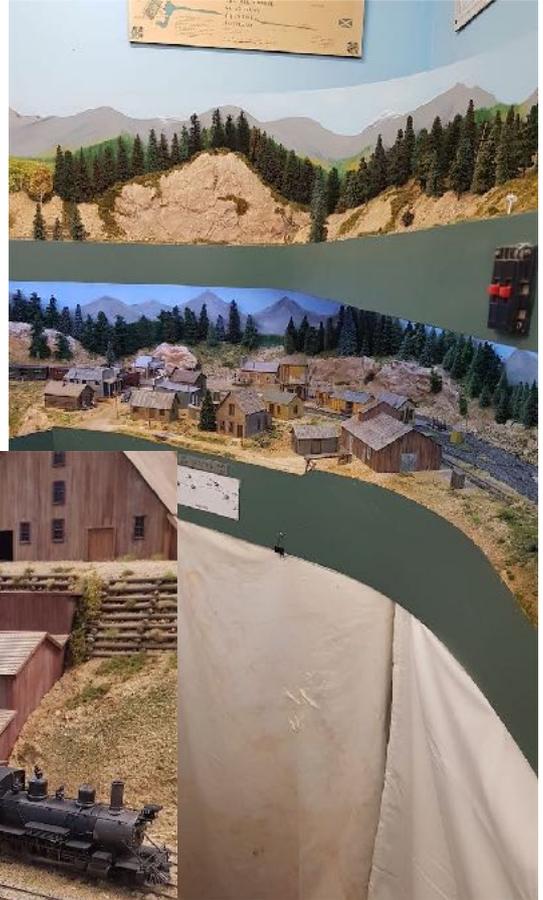
100% NMRA-AR Club News

City of Sails Model Railway Club

By Philip Sharp

July Meeting #1

Our club was a guest of the North Shore Model Railway Club (NSMRC) for their American Night. Six members of the CoSMRC attended and split their time between running trains on the NSMRC's Waitemata & Chelsea RR and relaxing in the club's lounge.

The Waitemata & Chelsea RR has a 151 metre long point-to-point mainline with seven stations, and a branchline with two stations. Two of the stations on the mainline have large yards. CoSMRC member Craig Mayall was able to get his train the length of the mainline with some switching on the way, no mean feat given the time available, the congestion on the layout, there were up to 15 trains, and Craig's unfamiliarity with the layout. **1** shows Craig switching at Southport, a station that is not well designed for switching. Joshua Hill had difficulty with dirty track at Indian Hill (no relation). **2** shows NSMRC stalwart Owen Munro cleaning the track. Joshua is mostly obscured by Owen.

1 Craig switching at Southport

2 Dirty track at Indian Hill

The evening ended with a piece of cinnamon and sultana apple pie made with rich homemade short pastry and topped with cream. The pie, see **4**, was made by CoSMRC member Elizabeth Mead.

July Meeting #2

Our second meeting in July was a train movie night at the president's home. We watched the 1975 film Breakheart Pass; Paul Hobbs supplied the dvd. The film is set in the Sierra Nevada, California, in the late nineteenth century and is based on Alistair Maclean's novel of the same name. The film used the Camas Prairie Railroad, a short line in Northern Idaho. The star of the film was the Great Western Railway 2-8-0 Consolidation #75, built 1907 by Baldwin.

Although the film was a box office disappointment the CoSMRC members enjoyed the film, their enjoyment helped by the continual supply of food and the 65-inch (165.1 cm) screen. As **3**. shows, most of us watched the movie from comfortable couches that formed a mini-amphitheatre in front of the screen.

At the end of the evening, we celebrated Joshua Hill's thirteen birthday and partook of cheesecake and ice cream.

3 Breakheart Pass audience

Inaugural Division 5 Zoom Meeting

The evening before the movie night, three CoSMRC members attended the inaugural Division 5 zoom meeting. All CoSMRC members were invited to the meeting but just Paul, James and Philip were able to attend. The meeting was organized by the Division 5 superintendent Kel Sherson. Part of this organizing included coordinating with the Division 1 superintendent Duncan Cabassi for the use of a suitable zoom facility.

I am not a big fan of meetings, having attended far too many unproductive meetings at work and in my leisure time over the last 37 years. This meeting went very well. After the introductions and some general discussion, Kel asked the attendees if there was anything he could help them with as superintendent. No one asked for help. Kel then spent 10 minutes or so encouraging people to complete AP certificates. He made the point that some meeting attendees had completed the work for certificates and they just needed to complete the paperwork. Kel offered to help people with the paperwork. The attendees decided to have another zoom meeting early September.

August Meeting

The CoSMRC has been going for twenty months and is still refining its long-term goal. One possible goal is having four to six hands-on clinics each year at its monthly meetings. As well as being enjoyable and productive, these clinics help distinguish the CoSMRC from other Auckland Clubs.

The August meeting was to be a hands-on clinic on decals at the Western Districts MRC. About two weeks before the scheduled date for the meeting, Auckland went into its second lockdown. The lockdown was not as severe as the lockdown earlier this year but did mean we had to postpone our August meeting. On September 1, some restrictions of the lockdown will be eased. This easing should be enough for us to hold in-person meetings. We are planning to have two meetings in September.

4 Elizabeth's Pie

Other Activities

Two CoSMRC members gave one clinic each at Gateway-X mid-July. CoSMRC president Mike Hill gave an introduction to Arduinos and described what the beginner can achieve, and Paul Hobbs spoke about streamlined passenger trains serving St. Louis. Near the end of July, Mike gave a slightly more advanced clinic on Arduinos at SERx, the virtual regional convention run by the Southeastern Region.

For the last few months, Paul has been using his extensive experience to help organize the timetable for the 2021 National Convention in Santa Clara.

New Member

Early August, Stephen Coleman from the Western Districts MRC in Auckland joined the NMRA and became a member of the CoSMRC. Stephen runs Santa Fe trailer trains headed by SD40-2s in the 1970s and 1980s. Stephen also likes flat car loads. ....M

Divisional Reports

As all members are aware, there have been restrictions for having Divisional meetings due to the current health considerations and differing rules in each location, so not all Divisions were able to hold a Monthly Divisional Meeting.

Division 1,

July 18th Meeting;-
From Duncan Cabassi   (NMRA-AR Div1 Superintendent)

Division 1 held a meeting at Paul Rollasons home on the 18th July.

What a pleasure to hold a face to face monthly gathering / meeting again. It was great to catch up with familiar faces and chat about the things we all have in common. Paul Rollasons residence was the location for the gathering and it turned out to be a cracking day at Paul's.

Some 25 fellow modellers enjoyed the camaraderie of our model railroading fraternity with much joviality throughout the day. The morning started with a chat around the social distancing and requirements for the day. Then Paul gave the team a guided tour of his layout, taking the time to explain the many aspects of his UNDER CONSTRUCTION large HO European layout.

New Division 1 shirts are for sale at $35 per shirt. This includes getting your name printed on the shirt as per the photo above. If you are interested in purchasing one of these shirts, please contact Duncan Cabassi (Division Superintendent) to place an order.

Before anybody asks there are no pockets.

1 Division 1 Shirts

2 Host Paul Rollason welcomes members

3 Members in attendance

To start the meeting, Paul Rollason gave his welcoming speech **2** and familiarisation to the members **3**.

Paul had some handcrafted and fabricated items on display **4**. These were all exquisite models built by hand nearly 100 years ago.

4 Paul's 100 year old models

6 Static Grass Applicator

Items on display for show and tell were as follows:

5 Station Building by Darren Lee

Darren Lee displayed a new Station Building **5**.

Duncan Cabassi displayed Items required to make a static grass applicator **6**. SAFETY NOTE, BE CAREFUL USING THESE ITEMS!!! These can give you a fair boot.....Just ask yours truly how he knows!!

Richard Kontos discusses his simply made cutting jig **7**. If you're interested Richard has a tutorial on how to make this jig on the net. 3 Items were displayed by Garry Paper, **8, 9 & 10**, exhibiting his amazing skillset in the weathering and construction fields. Here is an MMR in waiting.

7 Cutting Jig

8

9

3 Items Displayed by Gary Paper

10

Garry also had an in-progress test layout module he is assembling. Garry is trialling some new module making techniques. Utilising dense Styrofoam as the base **11**.

11 Module by Gary Paper with Dense Styrofoam Base

12 In Progress Diesel Project by Arthur Hayes

Arthur Hayes displayed his in-progress Brass Diesel engine (HO) **12**. Looks like a lot of work is going into this project!!

Trevor Phillips showed off his painting and decaling works **13**.

13 Trevor Phillips Painting & Decaling wagons

Now let's take a look at Paul & Tim Rollasons HO Scale empire **14 & 15**.

14 Paul & Tim Rollasons Layout

15 Round house on Rollasons Layout

The meeting had 26 attendees and given the current Covid-19 restrictions and our at-risk demographics, to see 26 members turn up was very pleasing. We also had a couple of people Virtually attend the Meeting.

It was a very enjoyable day that went well into the afternoon. Thank you to those who attended and thank you to the Rollasons who are always wonderful hosts….

August 22nd Meeting:-

Division 1 had also attempted to hold a scheduled monthly meeting at 1000am on the 22nd August with all covid 19 rules and compliance's covered.

All was going well until about 8.30 am on the morning of the 22nd when the QLD government changed the rules to restrict group gatherings to only 10 people. There were many phone calls made to inform intending participants of the cancellation of the meeting.

One learning experience that our Superintendent experienced from this exercise is that the NMRA membership does not have a lot of Mobile phone numbers listed for members and only has home phone numbers as the main contact. This does not help in a circumstance of this nature. Going forward, he will be requesting mobile phone contact details so that he can more readily contact people......

Divisions 2

The Division 2 Superintendent advised that there were no meetings held during the past two months due to the limitations imposed by the present pandemic......

Division 3 & 4

I have not received any notification that there were any Divisional meetings scheduled or held during the months of July & August in Divisions 3 & 4.....

Division 5

From Philip Sharp

Three CoSMRC members attended the inaugural Division 5 zoom meeting. All CoSMRC members were invited to the meeting but just Paul, James and Philip were able to attend. The meeting was organised by the Division 5 superintendent Kel Sherson. Part of this organising included coordinating with the Division 1 superintendent Duncan Cabassi for the use of a suitable zoom facility.

I am not a big fan of meetings, having attended far too many unproductive meetings at work and in my leisure time over the last 37 years. This meeting went very well. After the introductions and some general discussion, Kel asked the attendees if there was anything he could help them with as superintendent. No one asked for help. Kel then spent 10 minutes or so encouraging people to complete AP certificates. He made the point that some meeting attendees had completed the work for certificates and they just needed to complete the paperwork. Kel offered to help people with the paperwork. The attendees decided to have another zoom meeting early September....

Division 6

July 11th Meeting:-
From Jane Robinson   (NMRA-AR Div6 Superintendent)

Our first meeting since March was held at Bob Bevan's home at Mallala. A big thank you to Bob for organising it and the requirements necessary with the covid-19 rules for South Australia. Bob was presented with the Host Plaque **1**.
Present were 15 members **2**.

It was really great to see everyone in person.
Some of us had lunch at the local hotel before the meeting.
Marcel won the physical and virtual raffle.

2 Members at meeting

1 Bob Bevan

BUSINESS:
1.Library- Michael Robinson spoke about the new additions which have been added while we have been in isolation and encouraged members to make more use of it.
2.Finance- Ron Solly reported on the extra expense of obtaining extra rolling stock for the NT Junction layout and future plans for it use. Some members may add their own modules to it and possibility of going DCC in the future. If we find we are not utilising it we may sell it in the future.
3.David Teague will do some research re obtaining NMRA shirts and monogram locally. Michael Robinson discussed having jumpers with the NMRA monogram on also.

3   Marcel Van Eck with Golden Spike and Master Builder Scenery Awards

4.Social secretary- Trevor Seddon reported on the few members that meet for lunch before the meetings. He would like to see more members attending lunches.
5.AP report- Ray Brownbill reported for 2020. Congratulations to the following members-

• Ray presented Marcel Van Eck **3** with his Golden Spike Award and his Master Builder Scenery.
• Michael Robinson was presented with his Volunteer AP **4**.
• Ron Solly presented Ray Brownbill **5** with his Master Builder Scenery.

6. John Prattis has been nominated for the position of Pacific District Director.

Members receiving awards are being asked if they could do a report with photos on what they did to earn it so it could be published in the MainLine.

4 Michael Robinson with Volunteer AP

5 Ray Brownhill with Master Builder Scenery Award

Geoff Chatwin would like to hear from any members who would like to do a presentation at future meetings.

BRING AND BRAG.
1. Vern Cracknell- Isolation item-

6 G gauge Steam Locomotive

A G gauge steam engine made from bits and pieces at home **6**

2. Painted some scenery on backboards **7** & **8** with oil paints and then found some houses and added them to the scene. Very effective method. Vern also told us about an article he has had published on page 2 of Narrow Gauge Downunder magazine.

7 Vern Cracknell painted scenery on backboards with oil paints **8**

Michael Robinson displayed his new acquisition of a photo booth **9**. Cost $35.95 from NSW. Australia. Here is a link if you want to buy one on e-bay. https://www.ebay.com.au/

itm/40CM-Photo-Studio-Photography-Light-Tent-Backdrop-Cube-Soft-Lighting-In-A-Box/112651748725?hash=item1a3a914575:g:M5gAAOSwridaFRl2

Kim McWaters showed us 3 of his buildings he has built in the last few months and explained what was involved **10, 11, 12**.

9 Photo Booth

**10, 11, 12** Three buildings by Kim McWaters

13 3D Printed N scale

Trevor Seddon showed us his N gauge bridge **13** and castle buildings made using 3D methods and also a modified razor cutter.

15 G Gauge 30 Tonne Ore wagon

Marcel Van Eck had part of his old HOn3 layout **14** he has kept as a diorama and described what scenery materials that he used and card kits and natural materials.

Scott Taylor showed us his G Gauge 30 tonne ore wagon **15** which was used at Pt. Pirie as an ore carrier that he has built from scratch by following diagrams and photos.

14 HOn3 module by Marcel Van Eck

We closed the meeting and after a lovely afternoon tea we all took turns to inspect Bob's new layout **16**.

The weather was cool but we were fortunate there was no rain so we were able to spread out to enable our 1.5m distance. Our meeting was interrupted at times due to very large freight trains passing Bob's home across the road. Great place to live for train spotters…..

16 Bob Bevan's new layout

<u>August Meeting:-</u>

From Jane Robinson   (NMRA-AR Div6 Superintendent)

Our August meeting was held via Zoom due to only 10 in number allowed in a private home.   We welcomed a new member Ron Dunkley and it was good to have Frank Goode MMR 422 the Div.4 Super join us even though the internet wasn't the greatest. Thank you to   Geoff   Chatwin for hosting the meeting. There were approx. 10 participants.

Business discussed regarding future plans for AMRE next June which at present we have put on hold unless there is a drastic change in the COVID-19 pandemic as too many of us are in the fragile age group to take the risk of catching the virus.

Bring and brag- Members had a variety of things to show us and explain what they had been doing from 3D construction, tree making from garden flowers, a lift up bridge and various ways to make corrugations from cardboard to purchasing a corrugated iron maker from Brunnel Hobbies.

It was good to touch base with members and plan to continue with ZOOM meetings in the future if unable to have our normal meetings…....M

Division 7

From Les Fowler   (NMRA-AR Div7 Superintendent)

NMRA-AR Div7 were scheduled to have a meeting in August, but unfortunately the meeting had to be cancelled in the preceding days due to a revision of the government restrictions for the number of people who could assemble in a meeting due to the impact of the present pandemic……M

Divisions 8

From Ian West   (NMRA-AR Div8 Superintendent)

We have not held any division meetings, but the local Coffs groups are meeting regularly with limited numbers……M

Division 9 & 10

I have not received any notification that there were any Divisional meetings scheduled or held during the months of July & August in Divisions 9 & 10…...M

Comparison of Members who responded to survey & advised they read the JULY / AUGUST Edition of MainLine, compared to total NMRA-AR Financial Membership Numbers

Division	Members who responded to the survey for who had Read July/Aug MainLine	Financial Membership Number in each Division	Number of Members who didn't respond to the survey
Division 1	7	243	236
Division 2	4	46	42
Division 3	4	41	37
Division 4	2	11	9
Division 5	0	28	28
Division 6	3	39	36
Division 7	11	165	154
Division 8	4	60	56
Division 9	0	36	36
Division 10	0	3	3
Total	35	672	637

What's in the Next Edition

- *The Eureka Valley Narrow Gauge Railroad;* This super detailed 3' narrow gauge layout explores the 'Art' of model railroading for creating realism in miniature.
- *Trackside with the SM - Platform Lights;* Include lighting on your Platforms to bring your layout to life.
- *Momentum or no Momentum;* Adjust the CV's in your locos to make 'Driving' locos more pleasurable.

And So Much More…………………..