

volume 39 - No. 4

July / August 2022



the

MainLine

magazine

the official journal of the

National Model Railroad Association Incorporated
Australasian Region

NMRA Inc - Australasian Region Directory

REGIONAL COMMITTEE

President:	Duncan Cabassi 0424 844 807 president@nmra.org.au
Vice President:	Doug Wallace 0490 928 334 vicepresident@nmra.org.au
Secretary:	Trevor Phillips 0402 926 930 secretary@nmra.org.au
Treasurer:	Al Harris 0412 608 817 treasurer@nmra.org.au
Pacific District Director:	Robert Peterson (02) 9871 4157 director@nmra.org.au

MEMBERS

Member	David North HLM (02) 9975 6436 david@nmra.org.au
Member	Phillip Sharpe (64) 2720 30428 phillip@nmra.org.au
Member	Adam Wuiske 0421 892 632 adam@nmra.org.au

PUBLIC OFFICER

Public Officer	Doug Wallace 0490 928 334 publicofficer@nmra.org.au
----------------	--

SUPERINTENDENTS

Division 1 QLD	Paul Rollason 0419 670 653 div1sup@nmra.org.au
Division 2 ACT	Stephen O'Brien 0402 913 196 div2sup@nmra.org.au
Division 3 VIC	Peter Kendall 0412 299 730 div3sup@nmra.org.au
Division 4 WA	Frank Godde MMR (08) 9253 3155 div4sup@nmra.org.au
Division 5 NZ	Kelvin Sherson (04) 234-8577 div5sup@nmra.org.au
Division 6 SA	David Orr 0420 885 669 div6sup@nmra.org.au
Division 7 Newcastle, Sydney Wollongong	John Arrowsmith 0411 400 049 div7sup@nmra.org.au
Division 8 / 9 Northern NSW	Ian West (02) 7903 0402 div8sup@nmra.org.au
Division 10 Tasmania	Pat Britton 0417 625 278 div10sup@nmra.org.au

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 up to 2MB in size.

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

NMRA Inc. - Australasian Region Directory

(cont.)

REGIONAL VOLUNTEERS

A.P. Regional Manager	David O'Hearn (02) 9097 9903 ap@nmra.org.au
A.P. Assistant Manager ACT	Ross Balderson (02) 6238 1003 apviceact@nmra.org.au
A.P. Assistant Manager VIC (East)	Bill Black (03) 5968 309 apviceviceast@nmra.org.au
A.P. Assistant Manager VIC (West)	Peter MacDonald MMR (053) 67-360 apvicevicwest@nmra.org.au
A.P. Assistant Manager SA	Ray Brownbill 0417 849 630 apvicesa@nmra.org.au
A.P. Assistant Manager QLD	Arthur Hayes MMR (07) 3345 7887 apviceqldsth@nmra.org.au
A.P. Assistant Manager WA	Frank Godde MMR (08) 9253 3155 apvicewa@nmra.org.au
A.P. Assistant Manager NSW	Dennis Clarke MMR (02) 4390 2527 apvicensw@nmra.org.au
A.P. Assistant Manager Coffs Harbour	Ian Phemister (02) 6658 2626 apvicech@nmra.org.au

Librarian	David North HLM (02) 9975 6436 librarian@nmra.org.au
Regional Contest Chair	TBA contest@nmra.org.au
Editor - MainLine On-Line	Merv Bagnall (07) 4125 2360 editor@nmra.org.au
Web Master	Wayne Eagle (02) 9627 9892 webmaster@nmra.org.au
Web Administrator	Brad Anderson 0451 186 862 updates@nmra.org.au
Project Co-Ordinator - Web Upgrade	Duncan Cabassi 0424 844 807 div1sup@nmra.org.au
Education Chairman	TBA education@nmra.org.au
Social Media Manager	Martyn Jenkins 0407 637 607 ssm@nmra.org.au
Convention Chairman 2021	Peter McGuire (02) 4861 4032 convention@nmra.org.au
Membership	Al Harris 7 Mahogany Avenue Sandy Beach, NSW, 2456, Australia 0412 608 817 membership@nmra.org.au

NMRA Inc. - AR Disclaimer

Any comments made and any photographs are included in the magazine in the understanding that the author has obtained any necessary permission regarding copyright.

All comments made in this magazine are the comments of the author and not the views of the NMRA Inc. - AR.

Articles are provided by members for publication in good faith and the views expressed therein are not necessarily those of the NMRA Inc - AR.

New Articles

6	<p>Scratch Building in Styrene - Part 2 Arthur Hayes - MMR continues with Part 2 of his article on 'Scratch Building in Styrene'. Last month in Part 1, Arthur explained more about what was needed and in this month's article he explains more about how to build your model in styrene! <i>by Arthur Hayes - MMR</i></p>
16	<p>Motive Power A. P. Have you ever thought that you would like to have a go at qualifying for the Motive Power AP Certificate but thought it was just too difficult? Then have a read of this article by Paul Marrant - Grand MMR, as he describes the process he went through to build the three locomotives that he needed to build to qualify for his Motive Power AP Certificate. <i>by Paul Marrant - Grand MMR</i></p>
20	<p>Build a Diode Matrix If you have a yard or section of your layout with multiple twin coil point motors and want to be able to push a button on your control panel to align all points for the route selected in your yard, then Erik Bennett describes how to achieve this process in this article. <i>by Erik Bennett</i></p>
27	<p>Modifying the Micro-Mark Uncouple Lite Uncoupling Kadee couplers with a wood skewer works well when you can see what you are uncoupling. Ian Barnes found that he needed more light & less brutal method of uncoupling, and he found the solution by marrying a dental Pikster with a Micro-Mark lite. <i>by Ian Barnes</i></p>

Regular Features

2	<ul style="list-style-type: none"> • NMRA Inc.-AR Directory • Regarding Article Contributions
3	<ul style="list-style-type: none"> • NMRA Inc.-AR Directory (Cont.) • NMRA Inc.-AR Disclaimer
4	<ul style="list-style-type: none"> • New Articles Directory • Regular Features Directory • The Cover Photo
5	<ul style="list-style-type: none"> • Editor's Comments
19	<ul style="list-style-type: none"> • Magazine Publishing D/L Dates
30	<ul style="list-style-type: none"> • 100% NMRA-AR Club Reports:- • <i>Adelaide Model Railroaders Inc. x 2</i> • <i>Wide Bay Burnett M R C Inc.</i>
41	<ul style="list-style-type: none"> • Special Interest Group Reports
42	<ul style="list-style-type: none"> • President's Communication
46	<ul style="list-style-type: none"> • Achievement Program Reports
51	<ul style="list-style-type: none"> • Divisional Reports
82	<ul style="list-style-type: none"> • What's in the Next Edition

the Cover Photo

Signalman gives the "All Clear" for steel train 243 to leave Westgate. Rollingstock, Structures, Wagon loads, Lineside detail all made from styrene. Arthur Hayes - MMR.

(Ed - Refer to Part 2 of 'Scratch Building in Styrene', commencing on page 6)

Editor's Comments

The last edition of MainLine had comprised a record breaking 79 pages, but in this issue we added 3 more pages to 82! Well Done. We have had great support from our NMRA Inc.-AR membership with providing regular informative information on what is happening within our nine AR divisions, 100% clubs, special interest groups & more.

We are being kept up to date by the Achievement Program Manager with information on who is achieving by qualifying for AP certificates and he has also provided hints on how we, the members, can go about qualifying for each certificate. The AR President has been keeping us informed of the direction that the Australasian Regional Committee (ARC) are taking us in their decision making process in his President's Communication segment. The new web site and associated 'add-ons' will no doubt benefit ALL members and assist divisions in communicating and keeping members informed.

All up I believe our magazine is able to keep our members informed on what is occurring around our two countries, but that is also due to the great support we are receiving with a regular supply of current model railroading information that is applicable to our region.

We have a number of interesting articles in this edition and we start with Arthur Hayes - MMR concluding his great article on 'Scratch building in Styrene - Part 2', commencing on page 6. I believe everyone who needs, or wants, to build any structure for their layout in styrene, whether it be a simple shed, a complex building, a piece of rolling stock or anything else, well they will benefit from reading both parts 1 & 2 of this article, preferably more than once, as there is a lot of information and tips and tricks in there for anyone wishing to scratch build anything on your layout.


In my opinion one of the more difficult AP's to qualify for would be the motive power AP certificate. Paul Marrant - Grand MMR, describes how he achieved his certificate in his article of the subject from page 16. Well worth reading for anyone who, like me, is attempting to qualify for this AP.

At some time during the building of a model railroad layout, we all have wished that we could switch a number of turnouts to set a route by just pressing one button. Well, look no further than page 20 to know how to do this, as Erik Bennett shows us with a comprehensive description coupled with drawings and photos, that show how this task is done. Erik breaks it down so that even if you are not an electrical savvy person, you should be able to build a diode matrix system to switch multiple turnouts with one switch, with ease.

Many of our layouts are lit in 'mood lighting' mode, and that is great until you have switched a car and need to uncouple it, but can't see the couplers! Ian Barnes had that problem and has found a solution which is outlined from page 27. Ian has modified the Micro Mark Uncouple Lite (*light*), so that he can easily see the knuckles of his Kadee couplers and be able to uncouple his rolling stock at any location on his layout.

As mentioned above, to compliment the articles there is a lot of other information from the various other reports that make up this edition of MainLine.

I am always seeking articles for inclusion in future editions, so many thanks to those who have contributed and also to those who are going to contribute with an article or two in the future.

Don't forget to refer to page 4 of each issue if you are looking for the Index of where the 'Magazine Publishing Deadline Dates', or any other information or articles are located, in every edition of the MainLine Magazine.....

Meru Bagnall

Editor - MainLine On-Line

Scratch Building in Styrene

Part 2

by Arthur Hayes - MMR

Curving:

When making rolling stock, many have a curved rounded roof. Consideration may be required if the roof is to be removable or fixed. If you are considering installing lights, a removable roof may be best. To cut out the curved section on the end wall I use the screw top of a jar that's near the correct profile. Scribe around the lid with a pencil to see if you have what you want, then scribe around jar lid with a sharp hobby knife, care to keep fingers out of the way. Supports along the roof will be need to have a uniform roof line.

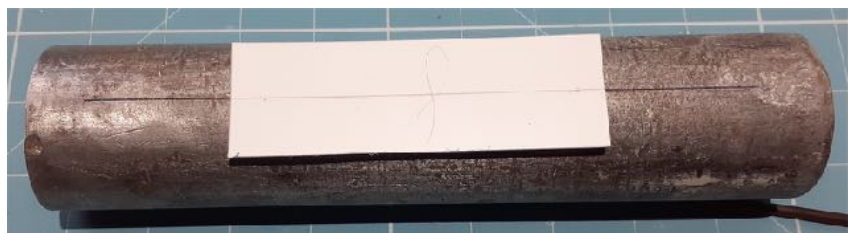


Curving the roof section can be achieved by fixing styrene sheet on an object that is near the correct size using masking tape. A section of steel pipe that is close to the correct profile is ideal. Some roofs may need a special forma shaped from timber.

Small diameter objects such as dowel or drills can be used to make up wrought iron

work on older structures using styrene strip.

Make sure the styrene sheet is square on the pipe. A centre line on the pipe can be achieved by using a section of angle, or a length of timber.



The full length of the roof section needs to pull tight onto the pipe with the

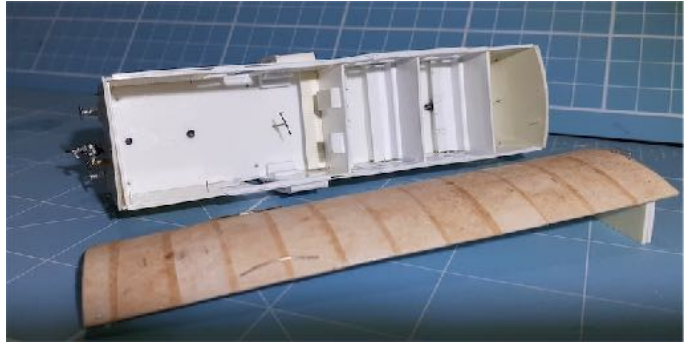


masking tape. To form the curve, the pipe is placed in hot water. I use a baking dish, boil up the jug and pour the hot water into the dish covering the styrene.

After a couple of minutes the pipe is removed with tongs and placed in the dish of cool water or under a running tap. I do this a couple of times before removing the masking tape. The

roundness in the roof sheet needs to close to the require radius. Trim excess from the curved sheet to the correct size for your roof. Forcing the roof sheet onto the supports with rubber bands etc. and applying solvent works to a point, but over time the supports will be visible in the roof.

Tea bags were added using super glue. Cut the tea bag into strips, stretch tea bag strips across the styrene and apply super glue allowing the glue to soak through the strip.



When making a removable roof, the roof section is made up with a separate base and supports. How you fix the roof is your call, I make it a tight fit which make it easy to remove if required, just don't grab the model by the roof.

Wooden blocks can be shaped to form a pattern to fix styrene for bending for carriage sides.

Filing/Drilling:- If filing or drilling is required after a couple of pieces have been joined with solvent, I suggest you wait until the joint is set. Ordinary twist drills can be used to drill holes in styrene at a low speed. Styrene can also be tapped to take a thread allowing screws to fix other parts when needed. I use 2 mm screws to fix coupling and bogies to my wagons, drill a 1.5 mm hole and tap the thread with a 2 mm tap.

Timber Grain:- Wood grain can be added to styrene in a few ways when modelling a timber structure or rollingstock. Most timber items are constructed using boards, weather boards or decking etc. Wood grain runs along the boards. Scraping a file, sandpaper or a file card along the boards will scuff up the smooth styrene to give a timber grain appearance.



Adding other materials:- On some models you may need to attach another material types to the styrene for the desired look. A structure you are building has a GI roof and grooved foil sheets need to be fixed to the styrene roof. I found Super Glue (CA) works best. Zap is available in a number of hobby shop, they have various types, Thin CA, ZAP-A-GAP is a medium CA+ that has a gap filling formula. It is best kept in a container in the



fridge for longer life. Bunnings and the cheap shops have super glue/gel in smaller sizes for a few dollars that can be used. However, super glue can frost up clear windows. For adding glazing, clear windows etc. Canopy Glue is great.

For many years I have used contact

cement, only to find over time it effected the styrene sheet. The sheet distorts, buckles and can wreck your model.

When you look at shed on farms etc. many have seen better days, with sheets of iron coming off.



I'm not sure if this is the look one is hoping to achieve ???



Adding small parts:- It can be frustrating adding small parts to detail a model, you have the part in the tweezers and part flies out joining the frequent flyer club, never to be seen again.

My wife often tells her friends that my hobby is crawling around the floor on all four's with a torch looking for something he can't find.

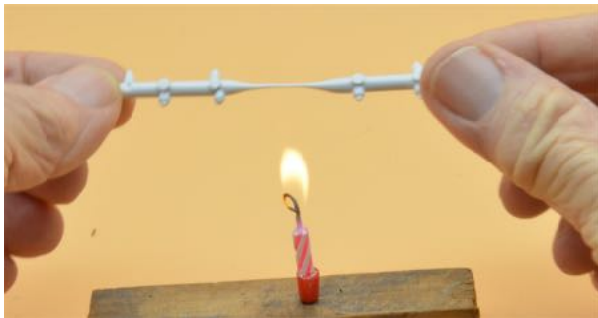
Yes, an apron attached to the bench and me would cut down my time on the floor???

Small styrene detailing parts can be transported from the work mat to the model using the sharp point on the end of modelling blade.

Tap the point of a sharp blade on the part, this will allow you to carry the part to the model.



Laminating Sheets:- Some applications may require more than one thickness of sheet and other sheets need to be added. When laminating sheets its best to used three sheets, it reduces the chance of distortion that may form some time down the track.



Round Rod:- Evergreen / Slaters has rod in various sizes. Rod can be formed from sprue found in plastic kit. Apply heat, a candle will do, when the plastic becomes soft, stretch the two ends until the size required is achieved. Some sprue works better than others. Off cut styrene sheet can be used as well.

Round Disc:- Leather punches can be used to make a disc for detailing. A collection of various sizes are useful for this application. Works best on thinner styrene.



Scribing Styrene:- Evergreen and Slaters have scribed styrene sheet, it is only scribed on one side and at set spacings. Styrene can be scribed with a cutting knife or a groove can be cut out using a "P" cutter to the required spacing's for that special project. With repeating scribing across

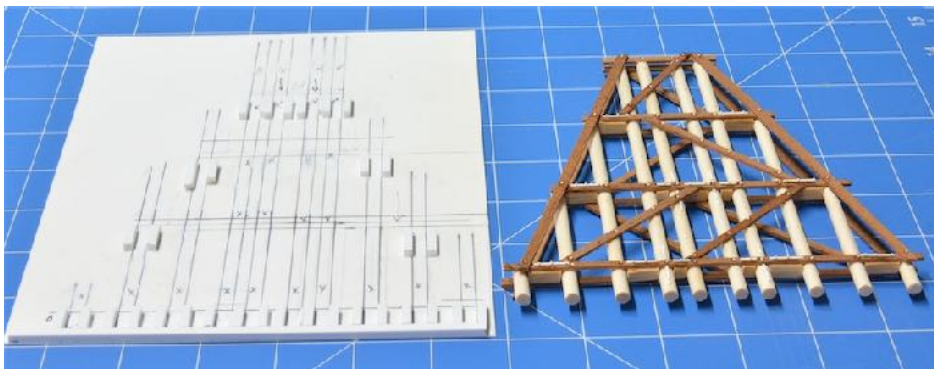
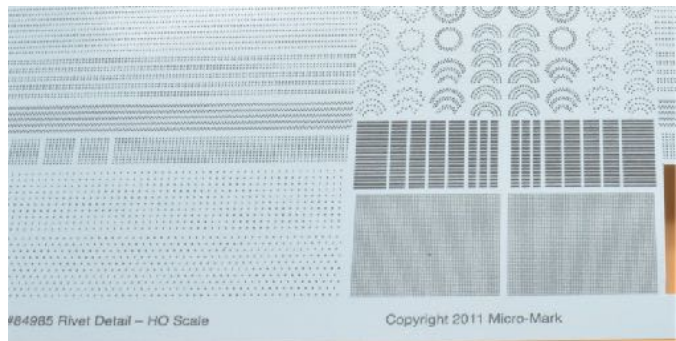
the sheet, the sheet will bow. To straighten the sheet, scribe the other side.

Detailing:- One of the key elements to a good model is detail. A number of manufactures make styrene detailing parts that can save you time and make the model look much better. Tichy Train Group is an US company that makes detailing items for structures and railroad cars for the US modellers. Many of the parts can be used for us Aussies modelling Australian Railways. Casula Hobby have HO scale timber framed windows, Wuiske Models have sliding aluminium doors and windows for Australian buildings.

Pins can be used for door knobs, check out Spot Light and the like for various sizes and types. Stainless steel Insect (Ento Pins) are available from .25 mm in diameter upwards, the are good for hand rails with no need for painting. Round rod can be used for door hinges. Staples are good for fixing steps to carriages, various sizes are available. Brass wire is available in various sizes that can be used for hand rails, steps, truss rods, door handles etc. Drill a small hole and secure the part with super glue.



MicroMark and Archer make water-slide surface detail (decals) in various rivet patterns, louvers, grills and safety tread. A clear gloss coat applied to the model is recommended before applying the decal. Once you are happy with the decals and they are completely dry, paint your model in the usual way. Airbrushing is best to avoid a too-heavy application of paint.



Jigs:- Styrene can be used to make jigs. At times you may require a number of items all the same size. Take care with solvent if jointing styrene parts in a styrene jig.

Tips:-

1. Record what you do, part used, size etc. You may want to build another one later. Plus, it establishes a standard for yourself and modifications can be made as to do more.
2. Use only small amount of solvent when making joints.
3. Keep off cuts, often small pieces are needed to strengthen joints etc.
4. Wooden or metal blocks can assist in making good joints.
5. Joints can be pulled apart by applying solvent in the joint.
6. Assemble parts on a good flat surface, a piece of glass.
7. Give the solvent time to set the joint. I often do a number of projects together, move from one to the next and the next before coming back to the first project.
8. Don't force joints, at a later date you may have twisted or warped the model.
9. Paint will highlight poor joints, not fix them.
10. Be comfortable, work in an area with good light and ventilation.
11. Take a few photos along the way, this will highlight errors quickly.
12. If not sure about something, ask someone. If you make a mistake, you know what doesn't work. Try another method or approach. Don't forget, we're here to help you.

Painting:- In preparing to paint, remove all dust etc. from the model. Wash the model to remove grease from your fingers and let the model dry before painting. Before applying paint you have not used before to your new model, try the paint on a piece of scrap styrene. Some paints can react with styrene. I recall trying to hand paint my first styrene wagon with "Floquil" paint, the first coat went on, after waiting for a week the paint was still sticky. I found out a barrier should be applied first. Air brushing the paint

was OK on styrene.



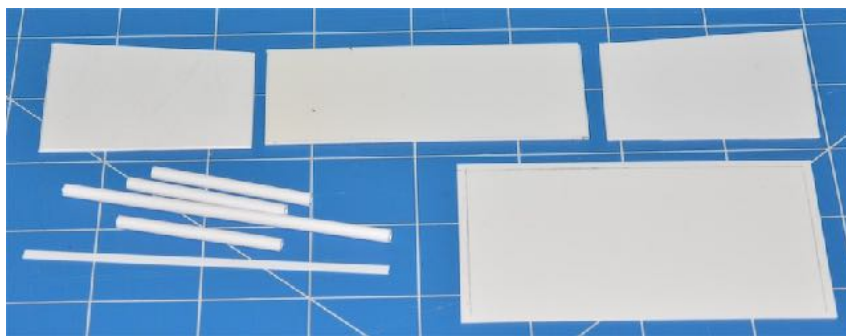
In recent times I have used most paints sold in hobby shops, enamel, acrylic, acrylic lacquer, (or what I should say is Oil), Water and Solent based paints.

Some you will find are for airbrush use only. Some brands I have used on styrene include Humbrol, SMS, tru-color (acetone), Mirotone, Tamiya and Vallejo. All have been with an airbrush. If decals are to be applied, a gloss finish is best. Painting is a subject and an art on its own, but give it a go. In short, all of the above paints have been used with good results on styrene models.

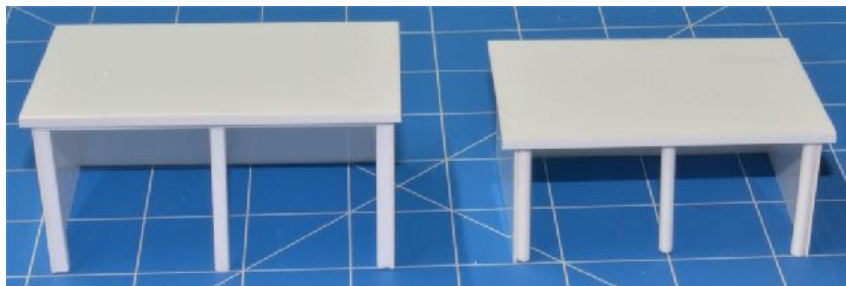
Scratch building Materials:- From time to time modellers ask where can they purchase scratch building materials, a list of items I use can be obtained by asking Merv our Editor or me.

Summary:- Many hours of fun can produce the elusive model that's not available in the hobby shop, making you the envy of your fellow modellers. Basic methods make it possible to assemble models quickly. Styrene is the best thing since sliced bread to the modeller, the sky is the limit. Plan your model, be patient and be prepared to have a go. If you find things do not work out, try something different and do it again or ask someone for assistance, we are here to help you to achieve your dreams.

Many articles have been written over the years in many magazines, I'm sure you will find various video on YouTube also. I would encourage you to read any articles written on the



construction of rollingstock or structures / buildings, on most occasions regardless of the scale or railroad modelled, you will find it worthwhile and it will improve your modelling skills.



Start small with a farm shed for the layout and experience the excitement of building and displaying a structure you did yourself.



As I do projects, most are posted on my blog detailing their construction. Plus, some can be found at work on the layout on my YouTube channel. The following few pages contain photos of projects that have been completed for the layout with a brief overview on their construction.

Layout:- Westgate SWR

Blog:- <http://westgateswr.blogspot.com/>

YouTube; - https://www.youtube.com/channel/UCJeqCUO7hR_qpV0ruPiMN_Q

Be sure to check out the MainLine Magazine for more modelling tips, the magazine can be found on the Australasian Region Website. www.nmra.org.au

Evergreen scribed sheet, plain sheet and strips were used to make this Guard's Van.

Tea bags were glued with super glue to the roof for the canvas look.



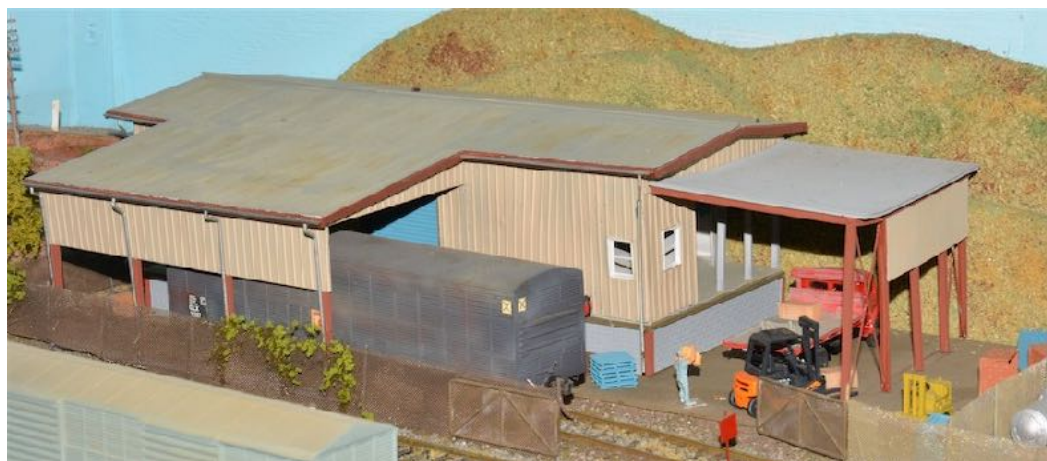
The Church was built from a photo.

Weather boards counted to estimate height.

Tichy Train Group windows were used.

Roof removable as building is fitted with interior lights.

Depot was built from photos, wagon used to estimate size of structure.



Plans in a magazine modified so building could fit in the space on the layout.

Stock yard built from styrene strip and rod.

Fences marked out on graph paper, fence was built on the graph paper using double sided tape.



This town hall building was built from a photo, counted the bricks to size the building.

Drawn up on graph paper, made to fit into a corner.

Interior and lights fitted to both levels.

Buildings and the rail ambulance built from styrene. Small projects grouped make a detailed scene for your layout.



This coal stage was built using a plan from the Australian Model Railway Magazine.

For the layout the length was shortened.

Add some detail to give that "being used" look. Figures can bring life to the model.



Styrene can be used to make the interior for your new model, it brings the model to life and looks the real deal.



The wagon was built from Evergreen scribed sheet and strip. A jig was used to build three wagons of the same class.

The model portrays the transporting of hay in cattle wagons during the great Queensland drought in the early 1960's.

Good Luck and Happy Modelling

We make it even more fun!



Motive Power A.P.

by Paul Marrant - Grand MMR

In this article from Paul Marrant - Grand MMR, Paul describes how he approached the task of building the three locomotives that were required for him to achieve his Motive Power AP Certificate. Paul provides a brief description of how he built the models and the materials used in the process. (Ed)

Bachman On30 O4O Porter Loco

This Bachman On30 Porter Loco was considerably modified and was super detailed using a considerable amount of commercial parts and scratch built items.

Construction:

The Cab was a new scratch built item and was constructed from thin plywood and timber. I Extended the front and back of the loco floor to allow for a Gypsy Winch kit that I constructed using timber planks and small steel angles. This gave more detail to the original kit and considerably changed the overall look of the front end of the loco. Various detailed items were added including toolboxes, tanks, brake cylinders and fine link chain. A new smoke stack was also added for overall effect.



I also used angles to make a rear shelf , and it was constructed in a similar fashion to the front extension of the loco accommodate detail bits.

Scratch built:

- Cab
- Wire coils

Commercial Parts:

- Gypsy winch kit
- Various brake cylinders
- Tool boxes
- Tanks
- Chain
- Brake shoes
- Wide smoke funnel
- Driver
- Bell replacing whistle'.



Bachman On30 T Boiler Shay

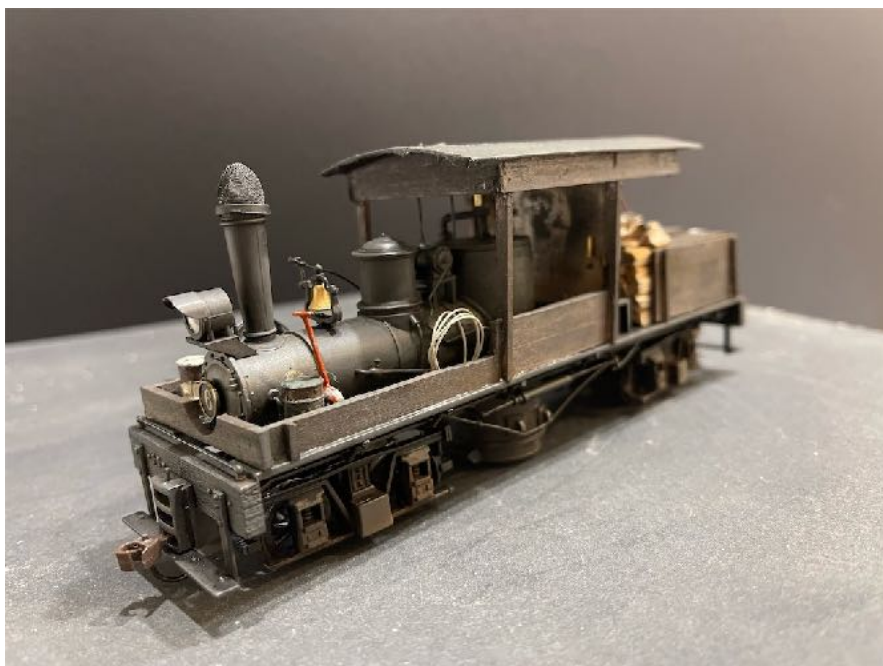
I chose the T Boiler Shay as I had some considerable thoughts around substantial modification and super detailing. This Bachman Shay was super detailed using some scratch built items and commercial detail parts.

Construction using scratch built items:

The old cab was removed and a new cab was scratch built and installed. This was constructed out of timber and thin ply wood to achieve an early steam era appearance. Thin wire was coiled to simulate wire cable tow ropes. A new smoke stack was added to compliment the overall look.

A timber water tank was constructed in place of the existing coal tender which doubled as a house for the electronics. Twigs from the garden were cut to scale lengths and split as would have been done on the prototype and installed on the rear of the cab to effectively convert 'The Shay' from a coal to a wood burner.

Commercial parts were added to the cab and surrounds to compliment the overall appearance.



Scratch Built Items:

- Timber cab
- Timber water tank
- Split timber fire wood
- Wire coils

Commercial Parts added:

- Small drums
 - Shovel
 - Axes
- Assorted tools

Scratch Built Box Cab Gas Mechanical

This Loco is a work of fiction as no known prototype exists. The inspiration for this came from a photograph on You Tube depicting a funky square box cab over a gas mechanical mechanism. I chose the design on this to align to my narrow gauge ideas on modelling.

Construction:

This was a predominately scratch built model. I used scribed timber sheeting for the cab walls which gave the effect of weathered vertical planking. The roof was made from thin modelling plywood. The radiator was scratch built using some very fine stainless mesh and framed with thin timber angle. The chassis frame and skirting was also scribed timber. The rail and roof access steps were scratch built from thin gauge brass wire and a small timber tread was installed on each step. The windows were made from clear acetate to simulate glass. Roof vent was made from a piece of brass tubing inclusive of a weather hat. Copper vents were added for effect. Step treads at each corner were added for access to platforms.

The motor, gear box, wheels and circuit board was taken from a Bachman Gas Mechanical doner Loco.

Scratch Built Parts:

- Cab
- Frame
- Flatbed
- Skirt
- Radiator
- Window and door frames
- Hand rails and roof access step treads



Commercial Parts:

- Copper vents
- Brass wire
- Corner step treads
- Light
- Simulated gas tanks on roof

Chassis/frame and flatbed was constructed using timber, sized and cut on my mini table saw.

The motor/gearbox/wheels was positioned and screwed in place.

Timber skirts were cut and placed on the under side of the flatbed for effect.

Steps were placed on each corner of the flatbed.

A new Cab was scratch built using scribed sheet basswood, windows and door openings were cut ,window and door frames were scratch built and installed.

Hand and Grab Rails were made with brass wire bent to the shape required.

Access Steps to get to the roof were placed on each side of the cab and were made from thin brass wire with thin timber treads.

The Copper Vents were glued in place around the cab.

The Roof was cut to size and glued in place.

Simulated gas cylinders were glued on the roof for effect.

The Radiator was constructed using some fine gauze mesh and some small timber angles as a frame.....M



Magazine Publishing Deadline Dates

If any member wishes to submit **An Article** for publication in MainLine, your article may be submitted at any time and it will be included in a future edition, where the subject matter will allow for a balanced number of differing subjects to be included, and where the number of available articles will allow for that to occur.

If you are providing any type of report, then **All Report Types** can be submitted at any time with a deadline date being as shown below, which is 10 days prior to the end of the month of publication.

This criteria is requested to ensure that the editor has sufficient time to complete the bi-monthly edition of MainLine in the required time frame.

If you are providing a **Divisional Meeting Report**, please submit your report as soon as possible after each monthly meeting, with the deadline date being as shown in All Report Types below. If your meeting is scheduled after the deadline date, then the cut off date is three days prior to the end of the month as shown.

This criteria is requested to ensure that the editor has sufficient time to complete the bi-monthly edition of MainLine in the required time frame.

File Types:- For all submissions, text files saved as MSWord, Pages or Open Office files are preferred with limited text and page formatting. Please don't send pdf files, they are unsuitable for use in this publication.

Photo Types:- For all submissions, photographs are preferred as jpegs or png file types and to be under 2MB in size. Should you prefer to send larger photo files, then please consider sending them via Dropbox or Google drive or a similar 'Cloud' storage program, or alternatively send a disk or flash drive via a postal service.

The following are the deadline dates for the next two editions of MainLine;-
September / October 2022

Deadline date for All Report Types = 21st August, 2022

Date for Reports of Div Meetings that occur after the Deadline date = 28th August, 2022

Publish Date on Web = < 5th September, 2022

November / December 2022

Deadline date for All Report Types = 21st October, 2022

Date for Reports of Div Meetings that occur after the Deadline date = 28th October, 2022

Publish Date on Web = < 5th December, 2022

Build a Diode Matrix

By Erik Bennett

Simple steps for a system to change multiple points with one button press.

Introduction:

You have a yard or section of your layout with multiple points switched by twin coil point motors (such as Peco point motors).

You want to be able to have a switch panel with a diagram of the yard, and push-buttons on each route through the yard.

When you push a button, you want all the points along that route to change.

The following steps describe how to design and build the diode matrix that will operate such a yard, and how to wire the whole system. It uses the example of a three road yard off a mainline, but the principle applies to any route system.

Diagram:

Draw a stick diagram for your yard. *Fig1*

Number your points. They can be any numbers.

Letter your routes. They can be any letters.

Assign a Normal point alignment. (*The opposite to Normal is Other*). It can be either alignment.

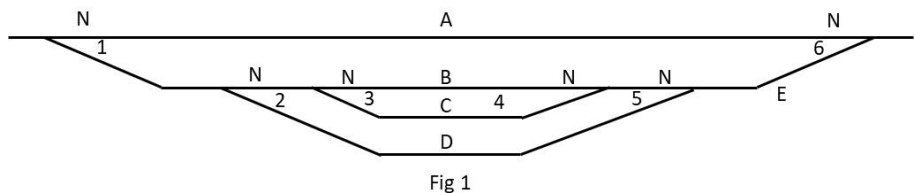


Fig 1

Assign a Normal point alignment. (*The opposite to Normal is Other*). It can be either alignment.

Route Truth Table:

Draw a truth table for your routes. *Fig2* Using pencil and paper will do. List your route codes and, for each, write in the points along the route and an N or an O to indicate their necessary alignment.

A	1N 6N
B	1O 2N 3N 4N 5N 6O
C	1O 2N 3O 4O 5N 6O
D	1O 2O 5O NO
E	6O

Fig 2

Note. Route E lets trains in or out of the yard while not needing to change point 1.

	1	2	3	4	5	6
	N O	N O	N O	N O	N O	N O
A	L					L
B		L L	L	L	L	L
C		L L		L	L L	L
D		L	L	L		L
E						L

Fig 3

Matrix Step 1:

Draw a matrix with route letters down the left and the point numbers across the top, indicating their Normal and Other alignments, *Fig 3*.

Use your truth table to fill in the matrix for each route by inserting the letter "L" (Link) in the N or O column for each point required to be aligned.

Matrix Step 2:

Look in every N and O column. Where an L appears more than once in a column, change every L in the column to a "D" (Diode).

This matrix now provides the logic for your route system. We need to add the other components.

	1		2		3		4		5		6	
	N	O	N	O	N	O	N	O	N	O	N	O
A	L										L	
B		D	D		L		L		D			D
C		D	D			D		L	D			D
D		D		L		D						D
E												D

Fig 4

Capacitor Discharge Units:

Capacitor Discharge Units (CDUs) ensure reliable firing of multiple points without burning out your push buttons. They are cheap and easy to build. You can buy them from model shops or build one for less than \$5.

Some routes have many points to be switched and others only one or two.

In this example, routes B and C have six points and route E only one. If you had a CDU capable of firing six points, its power would eventually destroy the single point in route E.

The solution is to use multiple CDUs. Electrically, it doesn't matter whether there are one or a dozen CDUs in the matrix system.

You use your matrix diagram to decide how many to use and which points to switch with each one. Try to keep to a maximum of three points per CDU.

In this example, two CDUs are used.

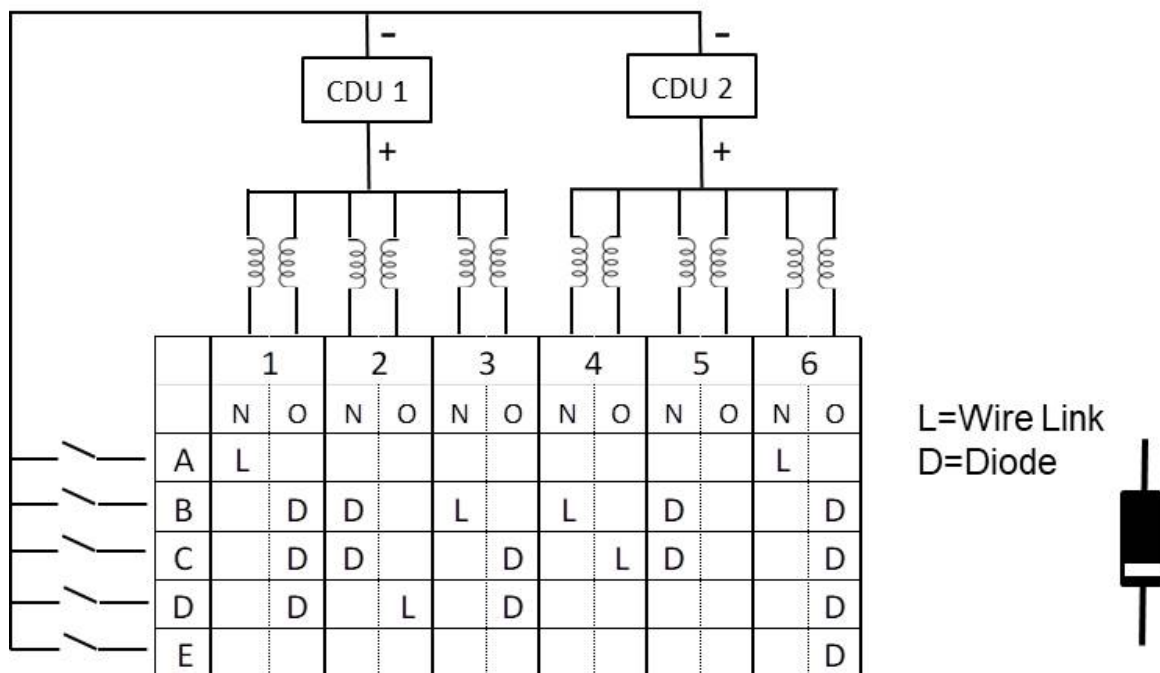


Fig 5

Completed Matrix Diagram:

Fig 5 is a representation of the matrix, the point motor coils, the push buttons, the CDUs and the wiring to connect all components. The diagram forms a good template to work from when you are wiring up your system.

Where there is an L, you connect a piece of wire from the route button to the appropriate motor coil. Where there is a D, you connect a diode. The diodes isolate the route buttons from each other.

1N4001/4004 diodes are used. They are black with a white band at one end, the cathode end. With the CDU output polarities as shown, the diodes must be connected with the banded ends towards the route buttons. (*CDU input wiring not shown for clarity*).

Also, to make the diagram easier to physically match to your CDUs, you can move the point number columns back and forth across the page to line them up under the CDU operating them. In this example, it just happens that the numeric sequence nicely splits in two with a maximum three for each CDU.

Board Components:

Use a piece of Veroboard to wire the matrix.

To make it neat, portable and to minimise soldering, use combinations of two and three interlocking PCB terminal mounts, available at Jaycar, to make terminal strips.

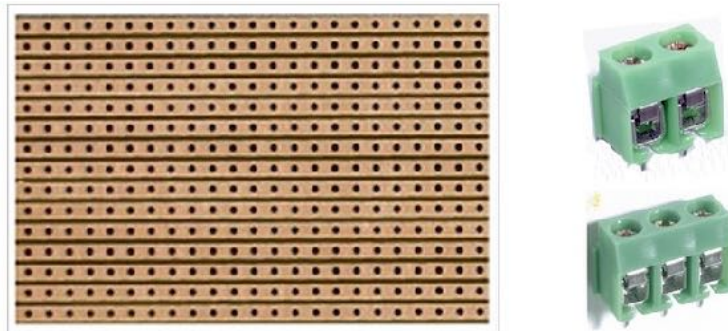


Fig 6

In this example, you will need

one 5-terminal strip for the routes and two 6-terminal strips for the N and O motor coils.

You will be positioning the components on the insulated side and inserting the terminal pins, diode and wire ends through the holes to solder on the copper side.

Two-Dimensional Magic:

Hold the Veroboard with the copper tracks running left to right and study the diode matrix diagram and the copper tracks. It is possible to wire the two dimensional matrix using only the horizontal tracks.

Fig 7 represents the three terminal strips positioned on the insulated side, with their pins pushed through their holes. The horizontal lines represent the copper strips on the other side of the board.

Note that the O terminal block is positioned one track below the N terminal block. 1N, for example, is on a different track to 1O.

This arrangement, therefore, enables wires and/or diodes to be connected from a particular route track to any coil track, totally insulated from any other track. Eg, a wire link from the track that the route A terminal is soldered to, to the track the 1N terminal is

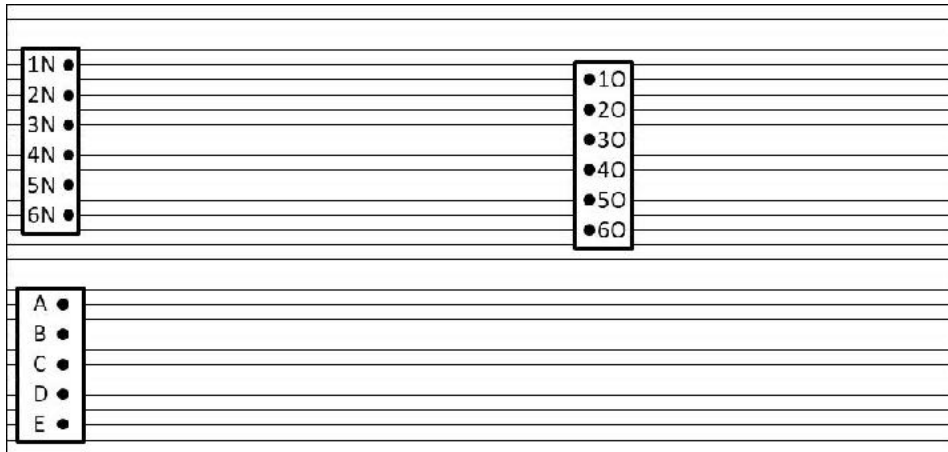


Fig 7

soldered to is a unique connection, touching no other track.

You space the N and O terminal blocks depending on how many wires and diodes you need to fit in the space between.

Matrix Board Wiring:

Fig 8 shows the layout of the matrix board for this example and the following connection instructions are for this example. Your board, of course, will depend on your diode matrix diagram - your equivalent of Fig 5 - but the procedure is the same.

Firstly, using Figs 5 and 8 as a guide, lay out the terminal strips, the wire links and the diodes on the insulated side of the Veroboard. Arrange an optimal spacing and provide for possible future expansion of your yard. You will probably find that the span for some diode connections is longer than the diode's lead

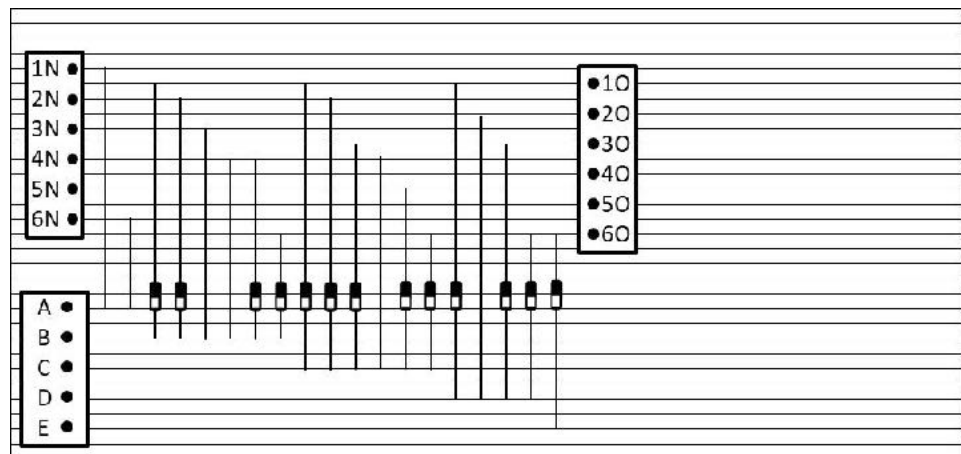


Fig 8

length. With these, solder a length of wire to one end of affected diodes.

When you are happy with the layout, double check the locations then push the terminal strip pins through their holes, turn the board over and solder them.

Use a marker pen to write the terminal names on or near the terminals to help with accuracy when making the connections.

Using a wire link or diode, make your first connection.

In the example, insert a piece of wire, cut to length, into the holes along the tracks that route A and coil 1N are soldered to. Turn the board over and solder them. Work your way through all connections, making sure to connect the banded end of the diodes to the route terminal tracks.

Double-check as you go.

When you have finished, your board should look like Fig 8.

Wiring the System:

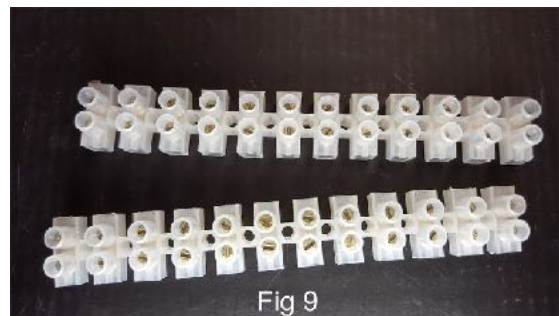
General

Peco point motors draw quite a lot of current. To ensure reliable switching, you need to use good cabling and have your cable runs as short as possible. Use cable such as Jaycar WB1708, Heavy Duty Figure-8, which has a black trace on one of the pair. To help with accuracy, use the black trace side to always connect to the N (Normal) side of the matrix board and point motors.

Locate your matrix board so it is central to the point system with cable runs about the same, and locate each CDU so it is central to the point motors it is serving.

Avoid soldering-in components to the circuit. Use terminal strips such as Jaycar HM3194 12-way Terminal Strip. You make terminal blocks for the components by cutting the number of terminal pairs you need from the 12-way strip.

You solder to the point motors and push buttons (and CDUs if they don't have terminals) but screw-connect to the terminal blocks for interconnections. This way, you can easily remove components for repair or maintenance without unsoldering anything.



Point Motors:

You wire the point motors before installing the point.

Pick one side of the point motor, either side, and solder individual leads to each of the two solder pads. The other side of the point motor is going to be the common, so strip the insulation from a lead, long enough to span both solder pads, and solder the lead to both pads. It's best to use a different coloured lead for the common.

Push the leads through the hole in the baseboard and install the point.

Cut a 3-terminal section from a terminal strip, and mount it close to the point.

Screw the common wire

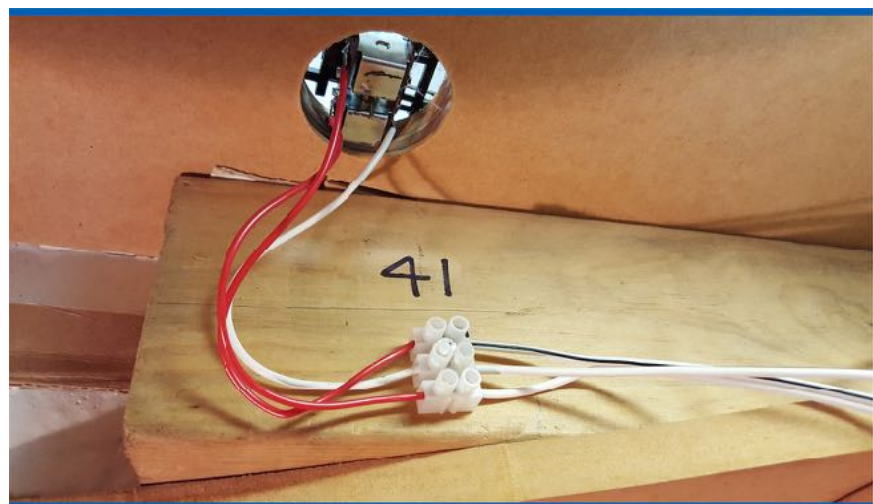
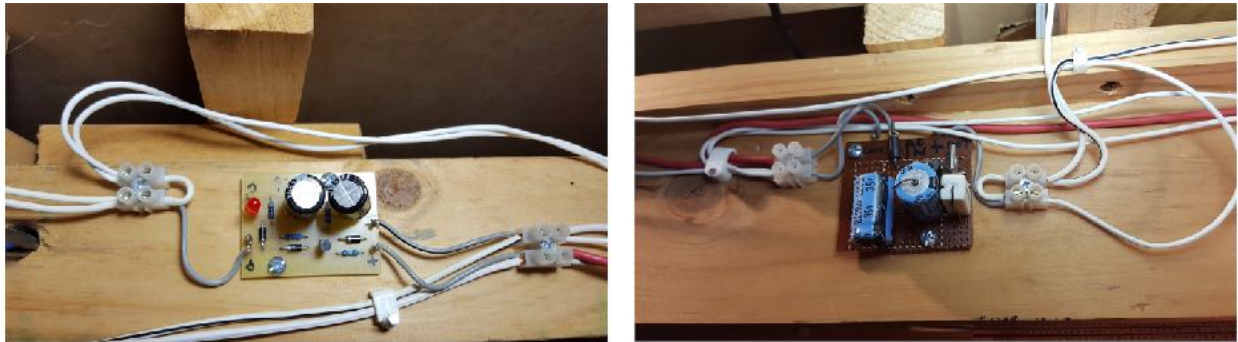


Fig 10

into the centre terminal of the terminal block and the other two into the end terminals, as in Fig 10. Standardise on using the centre terminal for common.

Use a 12V source such as an old train controller to work out which coil produces the N



Example CDUs

alignment. Manually align the point to the O alignment then, with one controller lead on the common terminal, tap one or the other active terminals to see which one causes the point to change to N.

When you have determined the N alignment, mark the terminal with a marker pen.

At this time, also write the point number on or near the terminal block.

Using Fig 5 as a guide, run figure-8 cable from the outer terminals of the terminal block to the N and O terminals for this turnout on your matrix board. For consistency, use the wire with the black trace to connect terminal block Ns to the N terminals on the matrix board.

Complete the point motor wiring by running single wires from the centre terminal of all point motor terminal blocks to the positive terminal of the CDU serving them. If the CDU does not have on-board screw terminals, connect its outputs to a terminal strip marked positive and negative, and wire your point motors to the terminal strip positive.

Interconnections:

Design and build your push button panel. (*Doing this is outside the scope of this article.*)

Position two terminal blocks close to the panel, one for the routes with a segment for each route and one for a common. Label the route terminal block with the route codes.

Solder leads to the push buttons and connect one side of each push button to its position on the panel route terminal block.

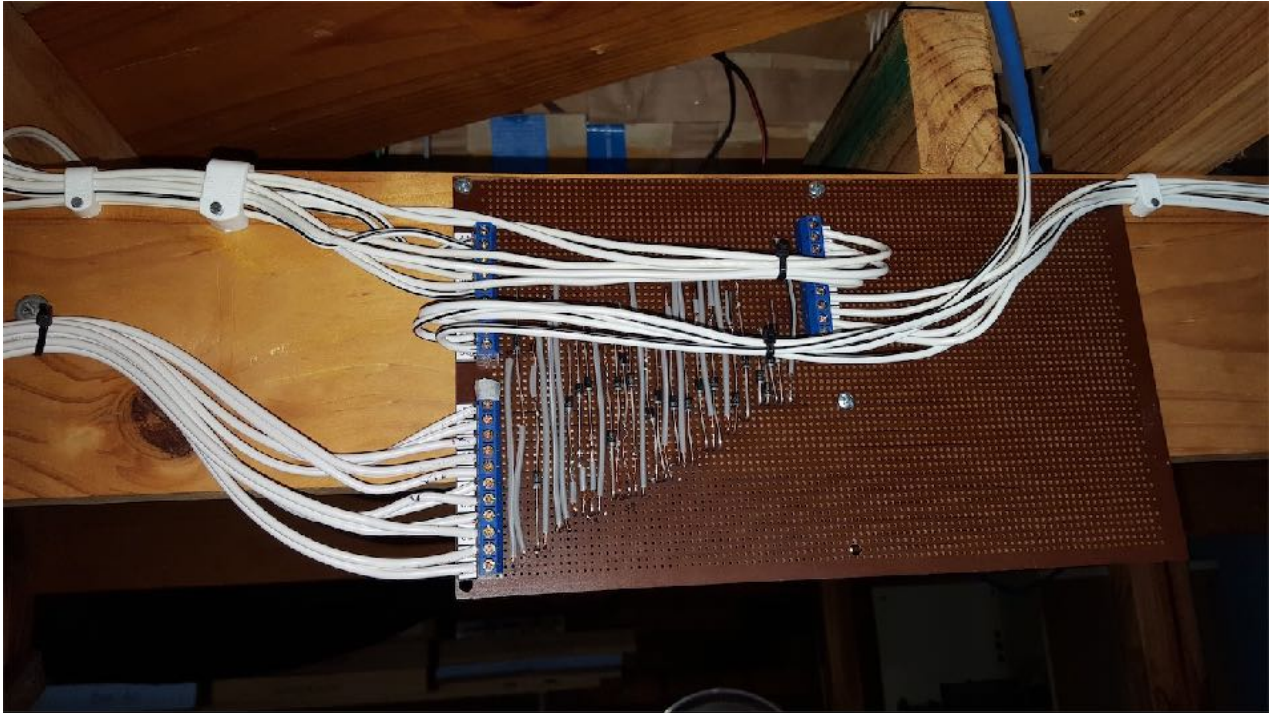
Connect the other side of each push button to the panel common terminal strip. If necessary, make a multi-segment common terminal strip by connecting wire joiners between the terminal positions.

Refer to Fig 5 for guidance. Run single wires from each position on the panel route terminal block to the appropriate position on the matrix board route terminal block.

Run a single wire from the panel common terminal block to the negative terminals of the CDUs.

Final Testing:

That completes the wiring for the system.



11 Routes x 9 Points


If you have checked everything as you go and are guided by Fig 5, it will work first time. However, the following may happen:

It works but some routes are not right:-

- Check the truth table logic to verify that a route should work. Check whether the point terminal blocks are correctly labelled N. Check that the diodes are connected the right way around. Check the polarity of the CDUs relative to the way the diodes are wired.

It works but some points in a route don't switch reliably:-

- Try adjusting the little slider near the throw-bar of the point. Sliding it back makes the point easier to switch. If this doesn't help, add more capacitance to the CDU or increase its voltage supply. This topic is covered in a separate document. Simple CDU circuits can be found on the Internet.

When you have it all working correctly, give yourself a pat on the back and run some trains through the yard.....

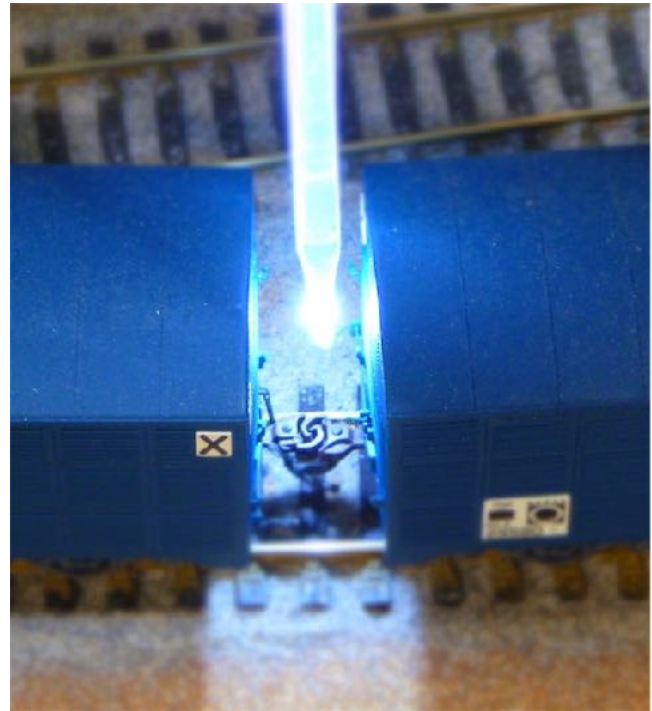
Modifying the MicroMark Uncouple Lite

By Ian Barnes

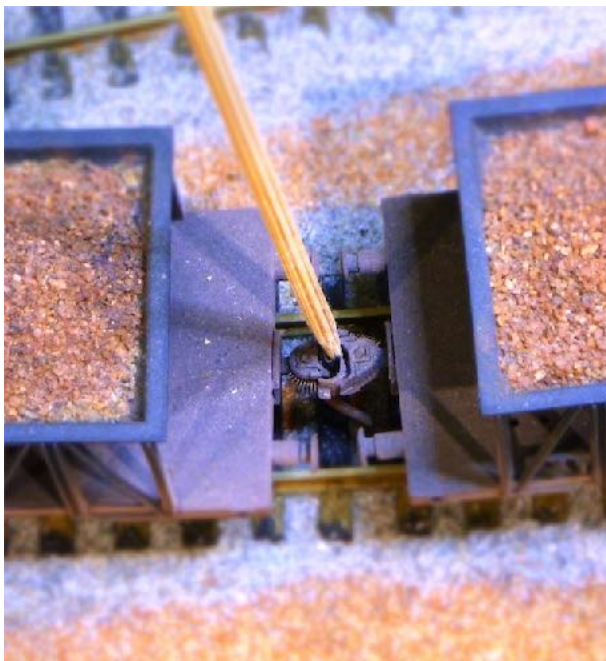
We all have our preference for uncoupling our rolling stock models and the method we use depends on the type of coupler we have on our fleet. I use HO scale Kadee couplers and though I have uncoupling ramps in some locations I prefer to be able to uncouple wagons at any spot on the layout.

Like many modellers, I began my uncoupling career with "swizzle sticks" and, like many of you, I used small wood skewers with which I experimented with various shapes at the pointy end. The tactic in using a "swizzle stick" is to hold the stick vertically above the couplers and slip the point between the knuckles of the couplers. With a small twist of the stick the knuckles often, and I have to emphasise "often", come apart **1**.

Good light and a steady hand are important. A few approaches might be required before the point hits the target and sometimes, if you don't get it right, you will succeed in displacing the important small bronze spring on



The MicroMark Uncouple Lite tool, and with some modification, can dramatically improve your manual uncoupling performance of Kadees

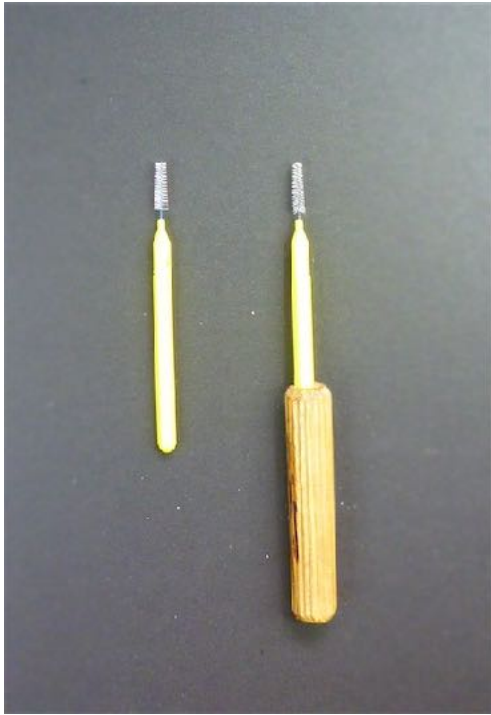


1 To separate a pair of HO scale Kadee couplers, a traditional small wooden skewer can be used

Kadees which normally keeps the knuckles closed. It's a bit of a bother.

The difficulty is, the point needs to be accurately pushed between the knuckles and when the knuckles are in tension, rather than slack, this can be problematic. Also, in the twisting action, the tip can sometimes wedge too tightly and you risk forcing the wagon(s) off the track particularly if the wagon is a light four wheeler.

Overall, as cheap as wood skewers are, I have not been satisfied with the method. I needed a tip capable of a gentle action, and I needed more light.



2 A number 3 Pikster dental brush can improve coupler separation. The brush on the right has been fitted with a small dowel for better finger manipulation.

To address the brutality of the wood skewer, I have since used Piksters. These are a small dental cylindrical brush on a handle, available from pharmacists **2**. They are available in a range of colour coded sizes but I have found the size 3 (yellow) gives me best results. To lengthen it, and to aid its manipulation, I have added a small piece of dowel as a handle.

Using the fine bristles on its tapered cylindrical shape, the Pikster gently pushes the knuckles of the coupler apart, often without even needing a twist. It seems to be less brutal than a wood skewer.

But again, if the couplers are in tension you need to be accurate in plunging the tip of the Pikster between the knuckles. And this raises the second important issue - being able to see what you are doing in there. With ageing eyes I needed more light on the subject.

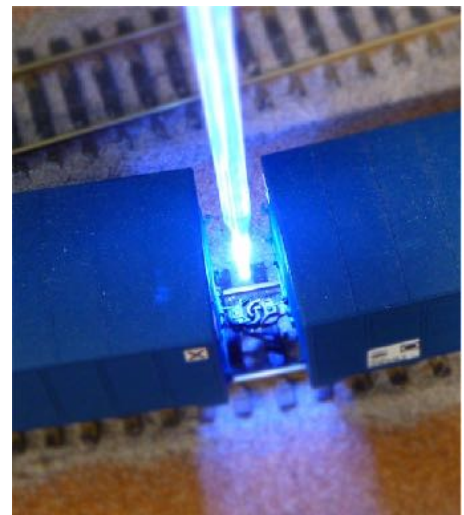
The distances involved are quite small and the lighting is almost always poor. Being able to see

between two wagon ends with your head blocking much of the light available from over the layout is becoming increasingly difficult for me.

Compare **3** and **4** to see what a difference a locally targeted light source can make. For some time I have promised myself to build a Pikster with a light but until now the design details eluded me.



3 On most occasions, the coupler area has very poor light for manual uncoupling



4 Throwing light into the coupler area greatly improves manual uncoupling

Micro-Mark, the American small tool specialists, have solved the problem. They market the Uncouple Lite **5**, a "swizzle stick" with a light. From my initial experimentations, it provides ample light right on the target even if the layout is in total darkness. Again, this is illustrated in **4**. Clicking on the button at the top of the tool sends an LED light beam down the acrylic stem to the tip of the tool. An AAA battery supplies the power.



5 The MicroMark Uncouple Lite

I have since experimented with the three Uncouple Lites I have purchased and in performance, the light is very adequate. But its mechanical action is still a “swizzle stick” and I found the screwdriver shape point was still too brutal for my needs. So, I tried to improve the point’s ability to slip between the coupler knuckles with some gently filing of the acrylic tip. I sharpened it both in thickness and in width **6**.

Performance improved only marginally so I looked to combine the wonderful light capacity of the Lite with the (to my mind) superior uncoupling performance of the Pikster.

I razor sawed the Lite’s acrylic tip where the round cross section of the stem starts to become a screwdriver shape. The resulting flat end was smoothed with 1200 grit wet and dry paper. Using a 0.45 mm diameter bit I drilled a hole about 1.5mm deep into the end of the stem.

The Pikster’s plastic handle was cut off and the resulting twisted wire piece trimmed to about 7mm in length (making sure the trimming is done on the “handle end”, not the “pointy end”,

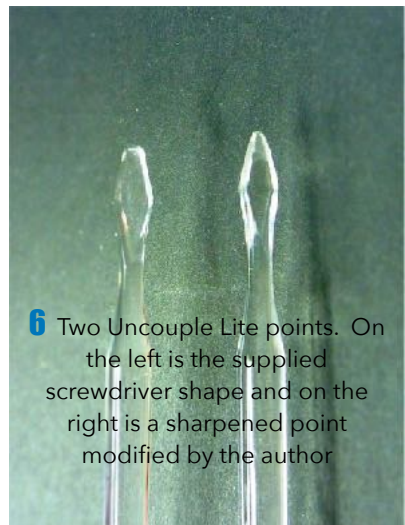
otherwise the bristles will fall off).

The bristle head was then screwed into the hole of the Lite stem using the twisted wire as a “thread” **7**. I didn’t glue it in because I want the option of replacing the Pikster head without having to progressively sacrifice more of the Lite’s acrylic stem.

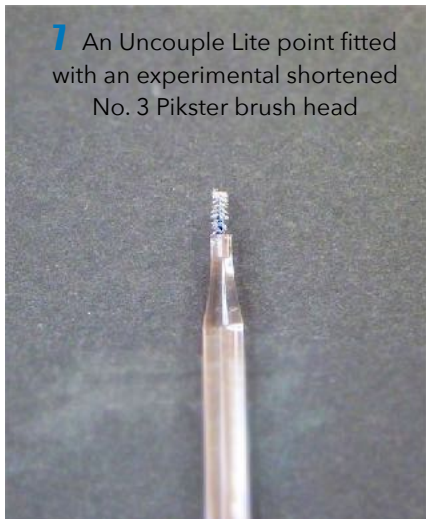
Marrying the two tools has been successful. Figure **8** shows the three experimental options with their lights on. Although the bristles of the Pikster diminish the light at the extreme tip, the light thrown in the uncoupling area is still quite sufficient to see what you are doing and the

Pikster’s uncoupling abilities are undiminished.

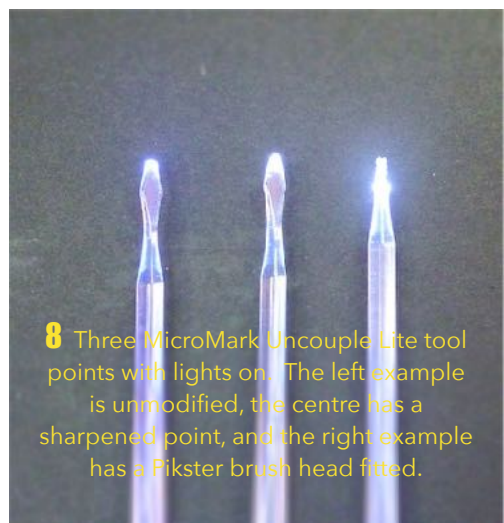
With further experimentation, I’m sure all three of my Lite’s will be similarly modified...



6 Two Uncouple Lite points. On the left is the supplied screwdriver shape and on the right is a sharpened point modified by the author



7 An Uncouple Lite point fitted with an experimental shortened No. 3 Pikster brush head



8 Three MicroMark Uncouple Lite tool points with lights on. The left example is unmodified, the centre has a sharpened point, and the right example has a Pikster brush head fitted.

100% NMRA Inc.-AR Club News

Adelaide Model Railroaders Inc.

A 100% NMRA Club in Division 6

Club News - Running Night **May** 2022

By Ken House (AMR Newsletter Editor)

<https://adelaidemodelrailroaders.com>

It was good to see a number of trains at the MAY RUNNING NIGHT on the SCRR this month. Electrically all trains appeared to run well. Tony Mikolaj's upgrade of our boosters seems to have improved the SCRR considerably. There are still a couple of track defects that cause problems for longer wheel based locomotives.

Passing through Houseman on the double track mainline is John Gayler's Athearn Genesis Centennial DD40. The two tenders following are Scale Trains rivet counter models. This loco has a great sound system. Watch video link below.

<https://www.youtube.com/watch?v=dfv5jXvelus&t=144s>



Christiaan Werk's Broadway Limited Norfolk and Western Y6b running past the large grain elevator at Houseman.

Y6b video <https://www.youtube.com/watch?v=NEgudbPTY0I>

John Gayler's DD40 crosses Christiaan's Y6b on the double track main line through Houseman while Christiaan films the cross.





Christiaan Werk was pleased with how his two Athearn Genesis SD70s ran seen here heading toward Hidden Loop. In the upper back ground is Kingston. Ken House used Ippinitchie Creek SW1500 no 156 to set out eight cattle cars at the cattle pens at Jefferson Abattoir Ltd.

Switching complete at Jefferson Abattoir Ltd Ken House resumed running his Santa Fe Stewart Hobbies F3s and nine car Athearn passenger consist.



Tony Mikolaj ran the Kingston turn according to the pre printed switch list. The loco is an Ippinitchie Creek GP7. Here he is switching cars in the yard at Prattis.

Matt Redden gave his New York New Haven Hudson a run. Here it is seen at the end of the run in the eastern staging yard at Redman.



WORKING ON THE SCRR



Above: Christiaan's scenery at Yorsen mine the Iron ore mine on the SCRR is really coming together and looks the part.
(photos: C Werk)



Warwick Graham and Peter Kirkland now have cork on the modules at Port Douglas and have begun setting out track prior to laying it.

Tony Mikolaj is progressing with the signals and Ken House is getting equipment ready for our inaugural operating session to be held on June 8.

GOLDEN SPIKE CEREMONY

On May 18 the club celebrated the completion of the Southern Central Rail Road's mainline after twenty years of work. The track laying crews finally joined the main line at a spot between Prattis and Haynes, locations named after our present club secretary John Prattis and his predecessor John Haynes. The track was actually joined about two years ago but the ceremony was delayed due to the Covid 19 pandemic. Now that most Covid restrictions have been removed it was felt that this was the right time to hold the ceremony.



To celebrate the momentous occasion club president Jeff Barclay drove in the Golden Spike, watched on by Paul Wright, John Gayler, Murray Dent and Peter Kirkland.

Jeff then gave a speech, we all gave three cheers and toasted the occasion with glasses of vintage port supplied by Kent Henschke.



Union Pacific locomotives belonging to Vice President John Gayler were driven up to the golden spike.

A monument has been erected to commemorate the driving of the golden spike for future generations.



This plaque which has the wording from the monument will be fixed to the layout fascia.

Other people present were Christiaan Werk, John Prattis, Kent Henschke, visitor Nick and Graham Redman (*below*). Not photographed but also present were Matthew Redden, Tony Mikolaj and Ken House.

This occasion is a time to remember the effort that it took to get the SCRR to this stage. The AMR moved into its current premises during 2002 after ten years in a former building at the Islington railway workshops. When we moved into our new premises the inside of the building was in


such a bad state, that it took two years of hard work just to make it habitable for the club.



The late John Holland, who was a life member, drew up the track plan for this version of the SCRR. This version being SCRR version four. Version one being a portable exhibition layout which formed the basis for version two

which was built in the Mt Lofty railway station between 1967 and 1992. Version three was built at Islington between 1992 and 2002.

Today the SCRR follows John's plan with just a few variations, enlarging Houseman yard, adding a steel mill, and moving Pt Douglas into the small room.

The future looks bright for the SCRR. There is enough work left to do to keep the club occupied for many years to come, with ideas for animation ambient sounds and lighting among other things. Also the club's aim of beginning operating sessions is due to be realised next month.....

100% NMRA Inc.-AR Club News

Adelaide Model Railroaders Inc.

A 100% NMRA Club in Division 6

Club News - Running Night **June** 2022

By Ken House (AMR Newsletter Editor)

<https://adelaidemodelrailroaders.com>

INAUGURAL OPERATING SESSION ON THE SCRR

The much anticipated occasion of our inaugural operating session finally arrived on Wednesday 8th of June. As a club our focus has always been on the enjoyment of the building of and the running of trains on the club's large HO scale layout, the Southern Central Rail Road. Prototypical operating sessions are the culmination of the club's aims.

When John Holland drew the plans for the Southern Central RR back in 2002 he envisaged it being used for operations as a point to point layout, Barclay to Redman. That is how we operated it during the inaugural operating session.

The session began with a rather long pre session briefing by Ken House. Ken then divided the eight operators present into crews taking into account as much as possible the operators preferences. We had four road crews two two man crews and two one man crews, 1 Peter Kirkland and Matt Redden, 2 Christiaan Werk and John Gayler, 3 Paul Atkins and 4 Tony Mikolaj. John Prattis was Yard Master at Houseman and Warwick Graham was Yard Master at Kingston. Ken House was Train Master / Dispatcher.

Peter and Matt had the honour of being crew on the very first train to be run during our first prototypical operating session. They departed from Barclay with the Morning Sweeper east, a long train which drops off a cut of cars at Houseman then goes round the return loop and returns to Barclay as the Morning Sweeper west. Paul ran the first west bound, the Merchandise train west. His train was the first train to depart from Redman. It was a through train that ran non stop Redman to Barclay crossing with the first passenger train, the West Wind east, crewed by Christiaan and John G at Jeremy Junction. All way freights were run as turns. Tony ran the first turn the Ippinitchie Creek

turn east, a short train with a short run, Ippinitchie Creek - Opie - Houseman. After arriving at Houseman it's loading was taken off by John P, the Yard Master while Tony took the power to the ready tracks where it stays until much later when it returns to Ippinitchie Creek on the Ippinitchie Creek turn west.



Above: Peter Kirkland was engineer on the very first train and Matt Redden, off photo, conductor. F7 number 711 heads the Morning Sweeper east as it departs Barclay, west end staging. An impressive line up of trains can be seen in the tracks at Barclay all waiting for their turn to grace the rails of the SCRR.

As expected there were a number of hiccups during the session. Several locos just would not start initially. Some we did manage to get running. But it was disappointing that we were unable to get the two sound equipped consolidation steamers to run. They would have added to Christaan's You-tube of the occasion. (See link later). Mostly the rolling stock ran fairly well for everyone except Tony who drew the short straw when he was assigned to the iron ore drag which included eight brand new Walthers short hopper (Jennies). These hoppers are coupled in sets of four. Not a bad idea except that they are coupled in sets with small very fiddly non moveable couplers. Also they did not stay on the track very well. Short cars do need more than the recommended NMRA weight standard. These problematic cars caused Tony to be much longer than expected throwing the sequence out of order which had a knock on effect. We then had three trains converging on Prattis yard at once. The loaded iron ore drag, the loaded consumables train, (limestone and coal), and a way freight. Fun times for the dispatcher who had to sort them out. Not only that but because all three were running behind the



sequence the YM at Houseman's marshalling of trains became out of sequence as well making for interesting railroading. All part of the fun, having to improvise when the unexpected happens. Just as well that we were not running to a time table or fast clock.

Above: The merchandise train west is departing from Redman the east end staging with Alco Fa 461 on the point. Paul Atkins is in charge of this through train which will travel all the way to Barclay. It's only stop was in the loop at at Jeremy Junction were it met superior train the West Wind east.

Prior to the session Ken devised and printed 23 A4 sized train order / switch lists which he placed in plastic sleeves for protection. These were placed in a document tray labelled issued. Crews took their train / order switch lists in order, followed the instructions and then when finished the train order / switch list was placed in another document tray labelled fulfilled. During the hour and three quarters that we actually ran trains each crew ran two or three trains resulting in the session ending at train order / switch list 10. The only train not to complete its run up till then was the Houseman turn,

crewed by Paul, which originated at Kingston and when time was called it had just arrived at Houseman. Good timing because next session it can begin the return journey back to Kingston. Thus there was no trains left out on the layout to hinder the next informal train running night as opposed to operating night. Also ending the session at that point will enable us to pick up from where we left off next session in a seamless fashion. And hopefully reduce the amount of work in re-staging. I will comment on that next time.

After the session was called to an end at 9.15pm we all adjourned to the meeting area to enjoy a well earned cuppa and bickie and a debrief. All involved said how much they had enjoyed the session and look forward to many more. I was extremely pleased and humbled to see how everyone entered into the spirit of the operating scheme and enjoyed their roles during the session. This operating scheme is just the beginning and no doubt will develop over time.



Thank you all. Ken.

Above: The petrol train east with Alco Fa 247 left Barclay with 4 tank cars and now has just picked up 5 tank cars from one of the loading tracks at OP oil refinery and is about to back up to pick up another 5 from the other loading track.



Left: Crewed by Christiaan and John G the West Wind east crosses Jolliffee's Jump with an Alco Pa on the point. This was the only passenger train run. It ran express over the complete layout.

Below Left: At Lower Kerry Peter and Matt return toward Barclay with the sweeper west while Tony takes the Ippinitchie Creek turn east toward Houseman.



Above Right: John Prattis, Houseman Yard Master, received cars from the sweeper and the Ippinitchie creek turn. The Houseman turn arrived in his yard just as the session finished. As well as switching the industries at Houseman the YM also makes up outbound trains in the classification tracks.



Left: Peter and Matt arrive in Prattis yard with the consumables train east behind SD9 953. carrying limestone and coal for the yet to be built steel works at Prattis. The coal was loaded at Redman Mining at Dent and the limestone hoppers came from Atkins Aggregates at Kingston

Right: Paul Atkins with clipboard containing his train order / switch list in hand is working the Houseman turn west at Werkendam while Peter Kirkland is switching the consumable train at Prattis.



Left: The empty consumable train west passing the Yorsen mine iron ore crushing and loading plant on it's way to Kingston and Dent.



Left: A busy time at Kingston. Paul is running the Houseman turn west, the train in the foreground, which is not actually in Kingston. The Houseman turn has just left Jeremy Junction and has crossed Inge Bridge and is now about to head downgrade into the hidden loop under Kingston and then on to Zieglersdorf where it has work to do. Behind Paul are Christiaan and John G. Warwick with cap is the Kingston Yard master and Matt far right is running the empty consumables train.

Both Christiaan and Ken uploaded video of this historic occasion.

Christiaan: 34 minutes <https://youtu.be/EPULNktB85k>

Ken: 9 minutes <https://www.youtube.com/watch?v=1gDHbZQZNvc>

WORKING ON THE SCRR



Above left: Christiaan has completed the coal trestle at Kirkland Coal Zieglersdorf.

Above right: In the process of doing this scene he dried some coal dust at home.

Photo: C Werk




Above left: Christiaan is moving along with the scenery to the west of Haynes. Paul Wright began the creek and land forms in this area so I wonder if we could call the creek tumbling down out of the hills Wright Rapids.

Photo: C Werk

Above right: Particularly well done is the way that Christiaan has coloured the foreground scenery to match the red scenery around Yorsen mine.

Photo: C Werk

Also this month Tony has installed a detector to operate a level crossing at the end of the Yorsen mine peninsula.

Warwick and Peter continue to progress Pt Douglas and Ken has returned to work on the steel mill.....

100% NMRA Inc.-AR Club News

Wide Bay Burnett Model Railway Club Inc.

A 100% NMRA Club in Division 1

By Stephen Reeves - Club President

Club and Layout Construction Update June 2022

The Wide Bay Burnett Model Railway Club decided due to the continuation of COVID-19 infections in the community combined with our extremely small member base, and therefore the risk of possible infection for ourselves, to cancel our 2022 Bundaberg Model Train and Hobby Expo. We're aware this disappointed our patrons, our traders, and our exhibitors, however we look forward to being able to present our Expo in March 2023 and are commencing plans to make this possible.

We held our AGM on 23rd April with Stephen Reeves being nominated as President, Graham Nicolson being nominated as Treasurer, Wendy Bucholz being nominated as Secretary and Craig Thistlethwaite being nominated as Vice President. All those nominated accepted the nominations. The only change to the 2021 executive committee was that Cory Bucholz was the previous Vice President.

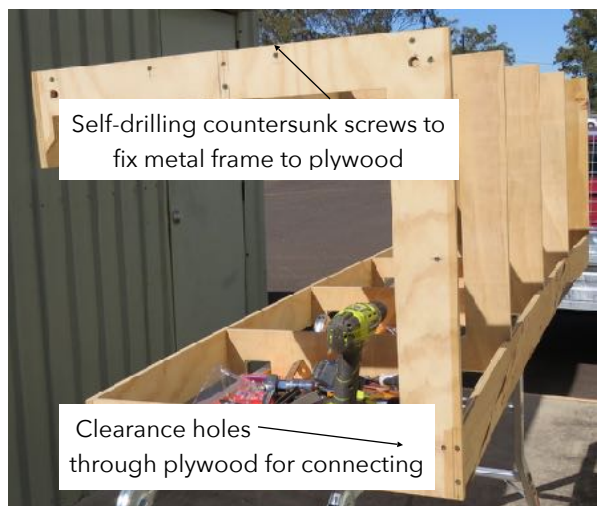


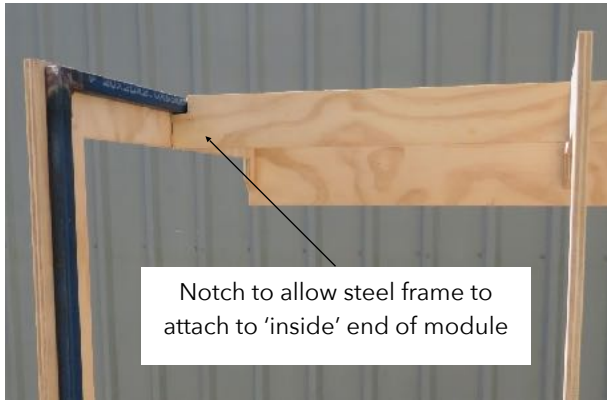
On Saturday 18th June we held another working bee to progress our HO scale layout. Sometime prior to the working bee I had the steel frame support module ends fabricated from 20mm square hollow section steel. These frames will support the ends of the module and allow the modules to be bolted together using bolts and the integrated (welded) threaded steel tabs.

We started on Saturday by resting the first module on my folding ladder to have the module at a comfortable working height. We then 'notched' the top frame member in the middle to accept the steel frame. Once we test fitted the steel frame I marked and drilled clearance holes for the bolts. Then with Kerry Bucholz's assistance I used self-drilling screws for fixing to steel to attach the end frame to the module. I found that the screws worked better with pilot holes drilled through the plywood and square hollow section steel.

As with any new project we had some difficulties with the first frame installation and

We then 'notched' the top





improved on this as we continued the job. Once we fitted the first steel frame we then placed the module on the concrete slab to allow us to 'match-up' the middle or intermediate module to install the matching steel frame into its end.

We were able to fit two end support frames to the middle module before starting to pack up as the working bee proceeded our regular committee meeting.



View opposite showing the two modules bolted together.

Photo below showing modules bolted together and Cory Bucholz undoing 2nd set of steel frame support module ends getting ready to install next frame.



At the next working bee we anticipate finishing off installing the steel frame support module ends and starting to install plywood support members for the base of the background, plywood bracing to counteract and minimise the distortion and bowing of the modules, and construction of folding aluminium leg sets. We determined finished height of the layout at a previous mock-up to allow us to calculate length of supporting legs.



Photo showing Qubelok (system using standard sized tubing matched with plastic connectors) aluminium sections for making the leg sets.

I look forward to providing the next update in a future edition of MainLine.....

Special Interest Groups (SIG)

Narrow Gauge Division 7

By Steve Chapman - MMR
(NGSIG Regional Meeting Co-ordinator)

Narrow Gauge SIG Meeting was held at Ray Walter's residence 21st May 2022.
Nine keen narrow gaugers came along to see Ray's ever growing layout.



Show and tell, I told the group what I had been doing the last 18 months making different models I have tried to make before.


Pic or Tanker No4 is just that, never made a tanker before this scratch build model is just that.

Greg Hiley showed us his flat cars he is making look really nice.



Last pic is our group enjoying Ray's wonderful layout, and hearing what everyone else is up to with their modelling skills.

A Great time was had by all looking forward to the next meeting on 20th August at Jim Poole residence.

Time seems to fly at these meets, nice to everyone, missed the missing members. Maybe next meet we see them.....



NMRA Inc.-AR



President's Communication

by Duncan Cabassi - NMRA Inc.-AR President

Good day to all NMRAAR members. As you are aware I took over as President of the Australasia Region (AR) on 1st, March 2022. The following information is a summation of activities of the NMRA AR for March, April, and May 2022.

I'm not sure if other presidents have had reports issued directly to the membership previously, however I see communications as a significantly important part of our AR process. So effective from this point you as members will get a quarterly report.



Executive Level

There has been a bit of NOISE coming out of our divisions around the Digital magazine (E magazine) availability, or should I say lack thereof for the NMRA AR region. This I suspect is driven by the recent advertising by National of the going live of the E magazine. I have personally fielded some correspondence and had verbal conversations with a few of our members. I'm also aware that our committee members and division superintendents have also fielded some questions around this subject.

Please understand that this issue was raised last year. The ARC had significant robust conversations around this subject and the decision was made that we would not force a significant financial increase on our membership especially as the magazine is assumed to only interest some of the membership due to its North American content.

This was communicated to the membership by email correspondence on 19th December last year and whilst I was not president at that time, I supported the decision and stand by it as the current president.

However, this does not mean we will sit on our hands with this subject. We will continue to actively hold discussions with national around this subject matter, and we will explore alternate solutions. This will take time to do, and I do not want anybody being under any illusion that we will get access to the National E magazine anytime soon. I would also like to bring to your attention that the hardcopy magazine which has the same content as the emagazine will still be available to AR members and this is as per the existing user pay system.

The ARC has formed 2 subcommittees.

- 1.Long term strategy development committee
- 2.AR Mainline E magazine as a revenue source

The strategy committee will look at strategy for the Australasian region to align, promote and grow the value add of being a NMRA member and how we can better service our NMRA AR community. This subcommittee will deliver to the ARC, strategy to be ratified and implemented across the Region. Again, these things are not achieved overnight, and this will be a work in progress for the rest of this year.

The 2nd subcommittee will look at the potential to utilise the NMRA AR Mainline e magazine as a revenue source for the NMRA AR. This committee will submit their recommendations to the ARC for discussion and possible implementation.

A small team of key stakeholders are planning the roll out of the **Microsoft 365 platform**. This is a suite of packages that will enable the divisions and ARC to collaborate using the cloud and shared tools. This will be a first for the AR and will give each division access to an environment to run virtual meetings, share information, work on shared platforms as well as many other advantages. As this is rolled out how to use documentation will be supplied to your division Superintendents.

The target is to have this program rolled out to each division by the end of July.

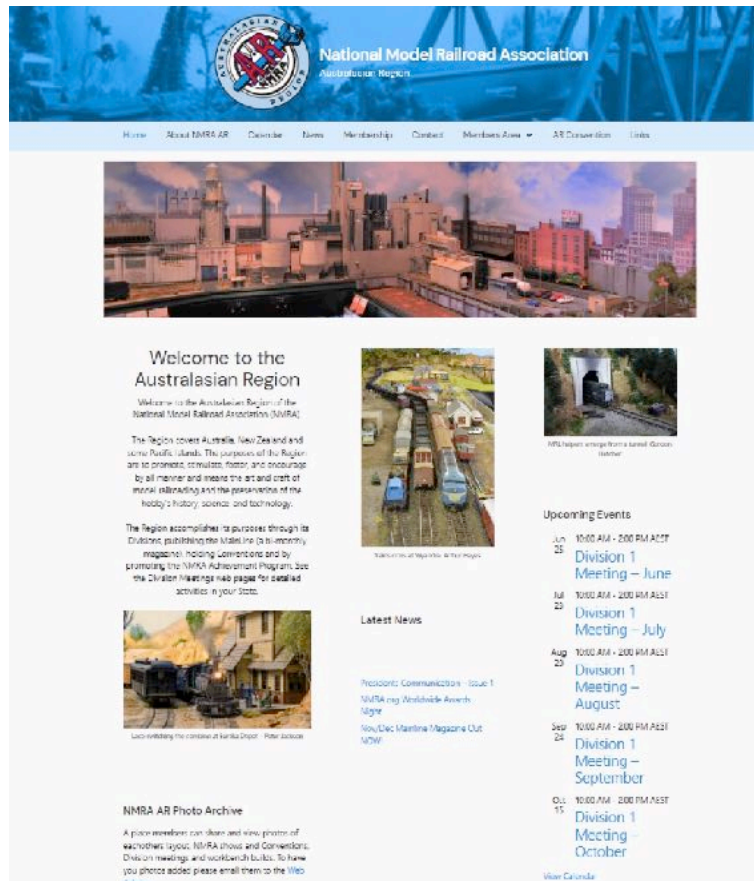
New Web Site

The months of March & April saw significant flooding going on in SE QLD and NSW, our heart goes out to those members affected by this event x 3.

This has caused a disruption to planned NMRA AR scheduled activities. In particular, the setup of the new NMRA AR WebSite. Brad Anderson our Web Site setup coordinator and Webmaster has been affected directly by the flooding and unfortunately progress on the new WebSite had been at a standstill for a few weeks as a consequence. In May, Brad tendered his resignation as the Webmaster as a consequence of the flooding which has led to a career path change for Brad and he no longer can give the role the time he believes it needs.

Wayne Eagle has been nominated as the new Webmaster and he will be underpinned by a few Web Editor positions yet to be appointed.

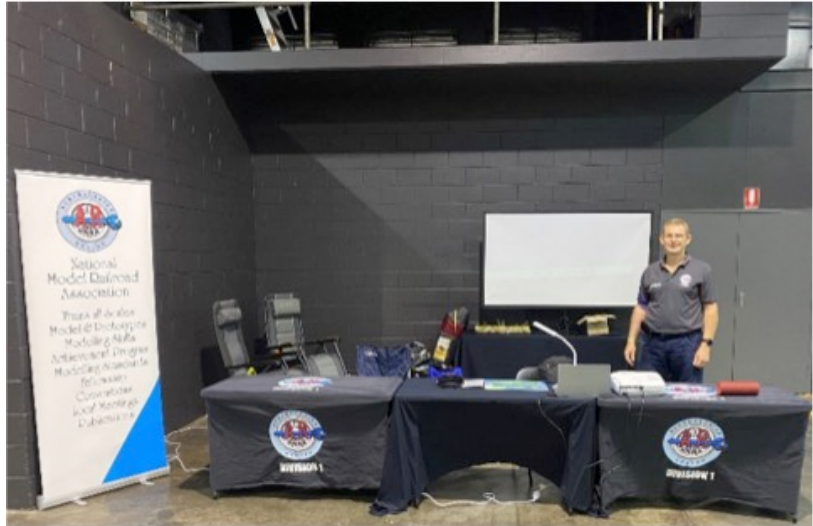
We are anticipating going live with the new website in June.



Divisional Activities:

NMRA AR Divisional promotions tables are a significant way of us meeting with the public and developing interest in the association.

Both Division 1 and Division 7 held promotions tables individually at recent events in both Brisbane and Sydney. Well done to the Division 1 and 7 teams in particular those members who stepped up to the plate to run the promotions activity. This is a great effort and I encourage all Divisions to follow suit and try and do a similar exercise at some stage (*PS not saying that you don't already*).



Around the start of March, Paul Rollason replaced me as Division 1 superintendent. This involved the handover of electronic information as well as hardware that goes to the Division Super. The information was transferred to Paul's care as we had a solid transition plan in place for when the day came to handover. I encourage all Division Supers to consider this as part of their role scopes for the future.

Division 5 Superintendent Kel Shearson has tendered his resignation as division Super. Kell has been in this role for a very lengthy time, and we all wish Kel the best for his retirement from the NMRA AR. Kel will not be lost to the NMRA AR and will provide plenty of support for the incoming Division 5 Superintendent Phillip Sharp. Congratulations to both Kel and Phil and the NZ team.

I sat in on the virtual NMRA AR Div 5 gathering (NZ) to which Division 1 provided the zoom and Kel Shearson, Division 5 Superintendent hosted. This was a great evening, and I had the chance to chat with some of our Division 5 members. I believe that this virtual gathering went down well and I look forward to doing this again soon.

All Division have been tracking well with divisional events for the membership with most divisions coming up with unique ways to make a difference at each monthly gathering.

Division Superintendents have been requested to develop plans for the division and share these with the ARC.

100% clubs

I've often heard it said that the 100% clubs are only in it for the insurance. Whilst I acknowledge that the insurance is likely a major reason, I see many 100% clubs that have quite a few members that are actively involved in NMRA AR activities so I would beg to differ on occasions.

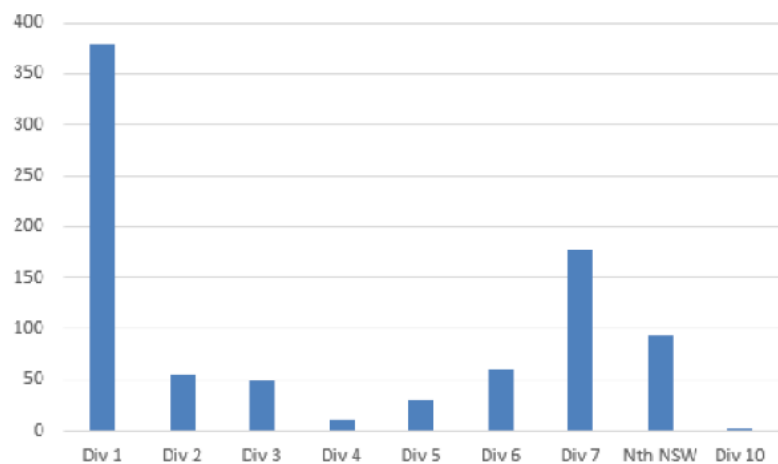
Saying all of this I would love to get feedback from the 100% club executives on what you think the NMRA AR can do as additional value add to your club?

Conversely, I would be interested in feedback as to what you think that your club can do to value add to the AR.

Statistics

Here are some Australasian region membership statistics:

Division	Total Financial
Div 1	378
Div 2	56
Div 3	48
Div 4	11
Div 5	31
Div 6	60
Div 7	178
Nth NSW	94
Div 10	3
Totals	859



Prototype Modelled	
Unknown	142
USA	254
Australian	295
European	69
Anything	99
	859

According to our membership records and what the members have indicated on their applications forms the following statistics can be gleaned with a +/- 15% accuracy:

Closing out

In closing out this quarterly report, I would like to remind all members that its membership renewal time.

We look forward to you continuing your membership and I personally look forward to meeting many of you over the next year or two.

The ARC anticipates issuing some electronic surveys soon to gather information from you the members so that we can use this feedback to help us determine and shape the right strategies for a stronger and growing association going forward.

To bring this quarterly communication in line with the calendar year, I intend to issue the next quarterly communication in early October.

Stay safe, and I wish you all the best of modelling. Duncan Cabassi NMRA AR President... 

NMRA Inc.-AR

Achievement Program Report

May / June 2022

by David O'Hearn - MMR, AP Manager

Howard Helland from the NMRA's Pacific Southwest Region raised the interesting question of how to achieve the award of Master Model Railroader without having your own home layout. Here are some of Howard's idea

Dispatcher Certificate

This can be achieved by accessing other people and club model railroads. Visiting and operating on fellow model railroaders and clubs' layouts will provide numerous hours of enjoyment and allow you to gather enough hours on various tasks to achieve the Dispatcher Certificate. Just keep a logbook (copy the SOQ form) and take some photos of the layout you are operating on so you can document it properly.

Cars

Cars requires the construction of eight railroad cars. There must be at least four different types of cars and one must be a passenger car (this can be a caboose). Four of the eight cars must be scratch built and four of the cars must achieve a merit score of greater than 87.5 out of 125. The cars getting the merit score can be the kit built or the scratch-built cars or a combination of both. No layout is needed to build these cars.

Structures

You must build 12 structures of six different types, and one must be a bridge. Only six of the structures must be scratch built. You can make structures for a future layout or make them for your friend's layout. Like with cars, six models must achieve a merit award, but they can be a mix of scratch built and kit built.

Motive Power

Similarly, to Cars and Structures, Motive Power requires you to build three scale models of motive power but only one must be scratch built. All three models must achieve a merit award (87.5 points or more) and the three locomotives must operate under power. Again, a layout is not required.

Prototype

Prototype requires construction of a model of a prototype scene containing six models of prototype equipment or structures. Four different types of models must be represented: rolling stock, railroad structure, caboose or passenger car and motive power. You must achieve a merit award of greater than 87.5 points but there is no size stipulation so Prototype can be achieved with a desk-top diorama.

Involvement with the NMRA

Author, Volunteer and Official are all awards available by getting involved with the NMRA and none of these require a home layout. Getting published as an Author is straightforward by writing articles for this MainLine Magazine.

Conclusion

By completing these seven Achievement Certificates you can become a Master Model Railroader without building a home model railroad.

The other APs not mentioned of Scenery, Civil and Electrical do require work on a layout but that can be a club or friend's layout. Obviously, working on your own layout is highly desirable but if your circumstances prevent building a layout, just remember you can complete the seven APs in this article just using your kitchen table.

Over the next few issues of MainLine, I will address each of the 11 APs in more detail with helpful hints on how to achieve the AP awards.

Recent Awards

I would like to congratulate the following members who have attained awards in the Achievement Program since the last issue of MainLine:

Golden Spike

Nil this period

Association - Official

Nil this period

Association - Volunteer

Nil this period

Model Railroad Author

Nil this period

Chief Dispatcher

Division 1: Malcolm Jenkins, Seven Hills, QLD

Master Builder - Cars

Division 2: Ross Balderson, Bungendore NSW

Master Builder - Motive Power

Nil this period

Master Builder - Prototype

Division 1: Malcolm Jenkins, Seven Hills, QLD

Master Builder - Scenery

Division 1: Malcolm Jenkins, Seven Hills, QLD

Master Builder - Structures

Nil this period

Model Railroad Engineer - Civil

Division 1: Craig Mackie, Parkinson, QLD

Division 2: Ross Balderson, Bungendore NSW

Model Railroad Engineer - Electrical

Division 1: Malcolm Jenkins, Seven Hills, QLD


Division 2: Ross Balderson, Bungendore NSW

Master Model Railroader

Division 1: Malcolm Jenkins, Seven Hills, QLD

MMR #706

Division 2: Ross Balderson, Bungendore NSW

MMR #712

Peter Jensen being presented 3 AP's for
Prototype, Structures and Electrical



Pen Portrait: Malcolm Jenkins

I live in Brisbane, Queensland, Australia. I retired in 2011 from full-time work as a mechanical engineering consultant, having worked mainly with heavy machinery in the sugar and mining industries. In contrast to the machines weighing up to 4000 tonnes on which I worked, I model in N scale. I started in N scale in the early 1970's, when the scale was quite new. I have always wanted to model the Australian prototype and when I started, absolutely nothing for Australian prototype was available ready to run in N, so I started a lifetime of kit-bashing and scratch-building. Inevitably this slowly developed some skills. After a modelling gap of a few years, I moved to Adelaide in 1983. An encounter with an uphill freight train restarting with three giant GM 3300 hp diesels reawakened the urge to model, and so I started modelling the South Australian Railways. Of course, at the time, nothing South Australian was available in N. This has led to more kit-bashing and some serious scratch-building, including venturing into custom brass etches and, more recently, the use of 3D modelling and printing.

Over the years, I have been very slowly building a layout covering portion of the Adelaide Hills, including Belair, which was my station in life from 1983 - 1988. Retirement has enabled more serious progress, and the layout, including a lower level with Murray Bridge, was effectively completed in time for the 2015 Australian National N Scale Convention in Brisbane. What started as a "modern image" contemporary layout in 1985, has become a historical mid-1980s period layout.

Inspiration

Since the completion of the layout, my interest in operations has grown. In this a great source of inspiration has been Duncan Cabassi, the current President of the NMRA Australasian Region. Duncan's vast experience with operations not only inspired me to develop my layout for operations, but gave some crucial practical ideas for terminals and staging areas to improve operability. Duncan is still a regular Yardmaster during our operating sessions, always popping out new ideas and suggestions for improvement.

Inspiration in the building of rollingstock came from a few key people: Peter Boorman, an incredibly skilled scratchbuilder, who has provided a vast range of kits of Australian prototypes in N scale; Gavin Thrum, a prolific scratchbuilder of South Australian prototype locomotives; Ross Balderson, probably Australia's greatest N scale structural modeller; and Phil Badger MMR who has also produced a huge range of kits and RTR Australian prototype in N scale.

Giving Back to the Hobby

Almost as soon as I started scratchbuilding South Australian prototype models, I worked with a couple of cottage industry manufacturers, so that my models could be made available as resin kits for other like-minded modellers. For over 30 years now my models have been made available by Rob Carpenter and Peter Boorman. More recently, with the advent of 3D modelling and commercial printing, I have made other models available directly via Shapeways. Altogether I have made over 60 of my models



available in one or other of these ways.


I have also made presentations at the Modelling the Railways of South Australia annual Convention, covering the availability of SAR models in N scale; the scratchbuilding/kitbashing of a railcar; and my prototype modelling of the crossing of the Murray River at Murray Bridge. I have made presentations and given clinics at the biennial Australian National N Scale conventions covering my approach to

designing custom brass etches; prototype modelling; and the use of 3D modelling to produce rollingstock. This was also covered in a clinic at the Clinics Weekend of the local division of the Australasian Region of NMRA.

I have written numerous articles for the Newsletter of the Victorian N Scale Collective, covering various techniques and ideas that I have developed, as well as following the development and expansion of my own home layout. An article on my approach to prototype modelling has also been published in the NMRA AR Magazine, MainLine. (Ed: March / April 2021 edition)

AP involvement

I was encouraged to undertake the NMRA AP journey by both Duncan Cabassi and Arthur Hayes, who is the current AP coordinator for the local Queensland Division. The awards I achieved were:

Motive Power; Cars; Structures; Author; Scenery; Electrical; Dispatcher; and Prototype Modelling - for my representation of the Belair station and surrounds, and rollingstock involved in a three-day-per-week splitting of a mixed train into its passenger and freight sections.....

Divisional Reports

Division 1

From Paul Rollason (NMRA Inc.-AR Division1 Superintendent)

May 21st meeting:-

Meeting Attendance and Apologies:

28 members

5 Virtual (Zoom)

1 visitor, who signed up as a new member on the day.

ARC Report:

Paul Rollason outlined the following:

- Overnight Excursion trip to Warwick in November to visit the Warwick Model Railway club, Southern Downs steam Railway (SDSR) Dinner train trip, SDSR Precinct and possibly the Watco train Depot.
- The New England Model Railway Convention being held in Oct
- Division 1 Midyear lunch at Kedron RSL on Sat 18th June
- End of Year Xmas function to be held at The Monier Hotel, Darra, Dec 10th
- Taking a gathering to Hervey Bay in Oct 2023

AP Awards:

1. Anthony Palmer - Chief Dispatcher
2. Malcolm Jenkins - Chief Dispatcher, Scenery, Electrical

NMRA Regional Feedback:

- The main points were update on the printed versus electronic magazine from NRMA and that Australia has decided not to take part in the scheme however members can pay an additional fee if they wish to receive it.
- The Arc now has two sub committees set up. A) Long term strategy development; b) utilising the Mainline magazine as a source of advertising funding.

Report:

The monthly gathering was hosted by Paul Rollason at very short notice. This was originally scheduled for Rob Perren's residence, however due to significantly inclement weather there were some safety concerns, and the meeting was relocated at very short notice.

There were 28 members in attendance and the meeting commenced at 10am.

As has been the standard over the last 3 gathering's, the gathering was broadcast live by our virtual links (5 in total) and recorded.



Presentations & Clinics

Craig Mackie a regular presenter gave an outstanding presentation on scratch building in line to achieve points towards the NMRA Achievement Program.



Craig Mackie Presentation

Craig's presentation was followed up by Alistair Wright presentation on building a Fine Scale Miniatures kit (FSM).



Both presentations showed an excellent collation of verbal communication with power point presentation and actual scratch built models to emphasise the levels and details that can be achieved.

Achievements Program (AP)

The presentations were followed by the awarding of the following AP certificates:

- Anthony Palmer received his AP for Dispatching
- Malcolm Jenkins AP Certificates:
 - Scenery
 - Electrical
 - Chief Dispatcher



Well done to both Anthony and Malcolm. A great reward for efforts and skills gained.

Show and tell:

Mark Bailey displaying some gifts from a fellow modeller.

Richard Kontos displaying his previously displayed laser etched wood kits.

Ken Edge Williams showed a small rechargeable soldering iron with temperature control.

Fellowship

Members socialised throughout the afternoon with much camaraderie shared.





Division 1

From Paul Rollason (NMRA Inc.-AR Division1 Superintendent)

June 25th meeting:-

Meeting Attendance and Apologies:

28 NMRA members

3 Virtual (via Zoom)

2 visitors

47 via Facebook Live

16 apologies

ARC Report:

Paul Rollason outlined the following:

- Duncan Cabassi, Arthur Hayes and myself travelled to Toowoomba on 4th June to present Ted Freeman with Hopkins Bone Award and 25 year membership and Gary Sardoni 25 year membership. We presented the awards at Club Level.
- NMRA Div 1 strategic plan completed
- Overnight Excursion trip to Warwick in November to visit the Warwick Model Railway club, Southern Downs steam Railway (SDSR) Dinner train trip, SDSR Precinct and possibly the Watco train Depot. **Close off date 15 July** and if we don't get 35 people then will most likely cancel trip.
- STEM committee established to investigate ways of getting a program into schools. Committee is Anthony Palmer, Bob Perren, Al Wright, Duncan Cabassi and Paul Rollason.

- The New England Model Railway Convention being held 22-23 Oct in Armidale.
- End of Year Xmas function to be held at The Monier Hotel, Darra, 26th November.
- Taking a gathering to Hervey Bay in Oct 2023.

Queensland Membership:-

- 383 Queensland Members of 859 (44.6%). 7 new members since last month.

AP Awards:-

- Gary Sardoni - Golden Spike Award
- Phillip Flynn - Golden Spike Award
- Craig Mackie - Model Railroad Engineer - Civil
- Malcolm Jenkins MMR - Master Model Railroader

Awards:-

- Ted Freeman - 25 Year Membership
- Ted Freeman - Hopkin Bone Award 2021
- Viv Brice - 25 Year Membership
- Viv Brice - Hopkin Bone Award 2019
- Martyn Jenkins - Hopkin Bone Award 2021

NMRA Regional Feedback:-

- New NMRA website goes live at 1pm Tuesday 28th June.
- The ARC now has two sub committees set up:-
 - A. long term strategy development
 - B. utilising the MainLine magazine as a source of advertising funding

Meeting Venue:

Hosted by Jack and Maureen Schmidt's residence at Palm Beach, Gold Coast.

Meeting Report:

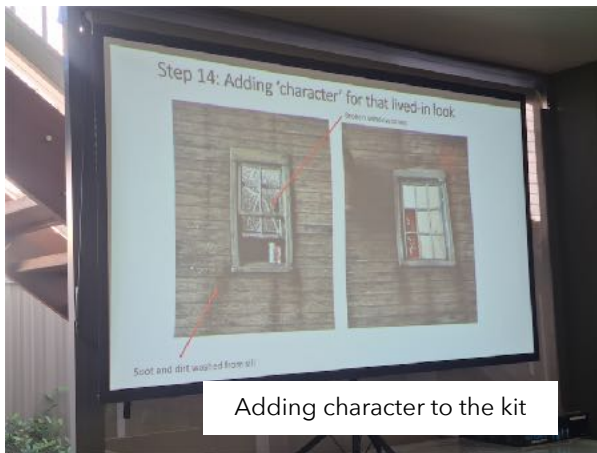
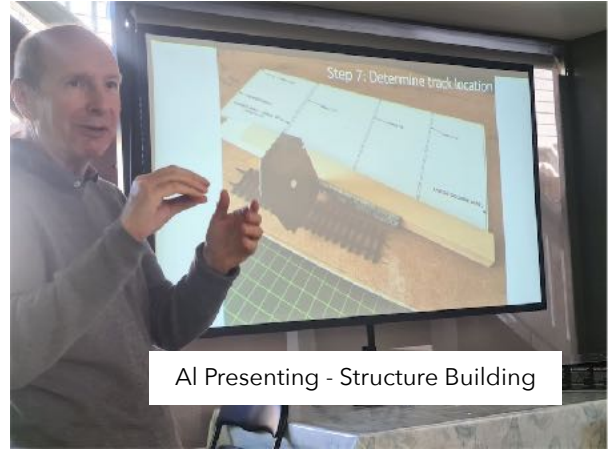
There were 28 members in attendance and the meeting commenced at 10am. As has been the standard over the last 3 gathering's, the gathering was broadcast live by our virtual links via Zoom (3 in total) and recorded. Of note 47 people joined us at some stage via Facebook Live (both Qld and AR Pages). This was quite surprising, and we will attempt to do this at each meeting.



Presentations & Clinics

Duncan Cabassi gave meeting participants a sneak preview of the new NMRA AR website that will be going live at 1pm 28th June. The old website will shut down 3-4 hours prior to this to allow the changeover.

Presentation #2 was a continuation from last gathering where Al Wright showed the progress of his 009 Fine Scale Miniature kit (FSM). The model is of what was a distillery, but later became a barrel house. Al discussed his thought processes of how he would use the building and modify it to suit what would actually be going on in real life.



Al then ran us through some of the actual construction to date.



Al demonstrated how he modified the kit and added character to the kit with his super fine detailing. Al's attention to fine details is second to none.



Presentation #3 was a joint presentation by Arthur Hayes MMR and Malcolm Jenkins MMR. Arthur outlined the Achievement Program (AP) and what is required to achieve some of the AP certificates. Arthur emphasised that it is achievable for most people and the important tip was to document everything you do. Arthur will be going into more detail of each AP Certificate one by one over a series of gatherings.

During the morning, Malcolm was



Arthur discussing Achievement Program



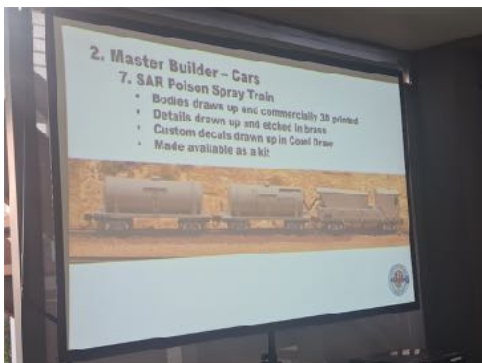
Malcolm Jenkins being presented his Master Model Railroader certificate

presented with his certificate and MMR plaque. You are to be congratulated Malcom on such an outstanding achievement and you are now one of a handful of people who are a Master Model Railroader. You are an inspiration to many a novice modeller.



Malcolm Jenkins talking about his MMR journey

Malcolm then followed by giving an account of his journey through to obtaining his Master Model Railroader (MMR) certificate. Malcolm also reiterated the importance of



documenting everything as you go and that everyone has the ability to achieve components of the program.

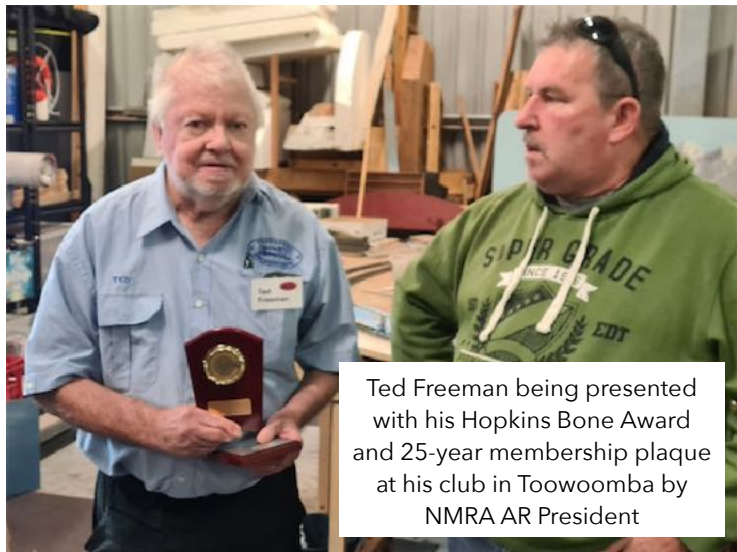
Awards Presentation:-

One of the highlights of being a Division Superintendent is to present members with various awards for service to the NMRA. One such award is the Hopkins Bone Award. This is considered to be the most prestigious award you can receive being part of the NMRA. Members are nominated once a year for ongoing and prolonged service to the NMRA.

The history of the award is as follows:

Gerry Hopkins - MMR advised the following: Many years ago, we had a member who went back and forth to the US on business. His name was Ian Hopkins he lived 150m from the Thirlmere Rail Museum. His partner's name was Peter Bone. Six months before retirement he had a heart attack at work and was gone. His partner contacted Sowerby Smith who was a good friend of both and asked him to pick up all the train stuff and remove it. Sowerby took a van down there and collected everything. The stuff was taken to John Baker's place - sorted and laid out on tables. Members of the NMRA and other train clubs were invited to purchase any items. At the end of the day the sale had raised \$17,000 which was for the NMRA Account. As a show of gratitude, the committee set up the Hopkins/Bone Award to be presented to a special member in each division. That's the history of the award.

On the 4th June 2022, Duncan Cabassi, Arthur Hayes and myself travelled to Toowoomba to present Ted Freeman with not only his 25 year membership plaque but also his Hopkins Bone Award (2021) for his service to the Toowoomba Model Railroad Club (100% club). Ted is one of those die-hard individuals and is always contributing to his club and the hobby in general.



Ted Freeman being presented with his Hopkins Bone Award and 25-year membership plaque at his club in Toowoomba by NMRA AR President

At our gathering on 25 June, we presented Viv Brice with his 25 year membership plaque and his Hopkins Bone Award (2019) for prolonged service to Division 2. Viv now resides in Queensland and moved to Queensland before Division 2 could present it.



Viv Brice being presented Hopkins Bone Award and his 25-year membership plaque at Division 1 Gathering by NMRA AR President Duncan Cabassi 25/6/22



Martyn Jenkins being presented Hopkins Bone Award at Division 1 Gathering by NMRA AR President Duncan Cabassi 25/6/22

Also presented was Martyn Jenkins with the Hopkins Bone Award (2020) for service to Division 1, NMRA X and other various roles in the NMRA.

Congratulations to all three gentlemen for your awards and thank you for all the service to the NMRA as it is the sacrifice people like yourselves put into the organisation that makes the NMRA the organisation that it is.

Achievements Program (AP)

The presentations were followed by the awarding of the following AP certificates:-

- Craig Mackie - - Model Railroad Engineer - Civil
- Gary Sardoni - Golden Spike Award
- Phillip Flynn - Golden Spike Award

Well done, Craig, Gary and Phillip. A great reward for efforts and skills gained.



Craig Mackie being awarded his Certificate of Achievement (AP) Model Railroad Engineer - Civil by Arthur Hayes



Gary Sardoni being presented his Golden Spike Award at his Toowoomba Club Qld AP Coordinator Arthur Hayes MMR on 4/6/22



Phillip Flynn being presented his Golden Spike Award at the Division 1 Gathering by Qld AP Coordinator Arthur Hayes MMR on 4/6/22

Show and tell:

- Kevin Frost showed us a brass kit he got for a bargain when he went "scissors/paper/rock" to beat another buyer.
- Ken Edge Williams showed his construction of a Queensland Camp Wagon.
- Col Leibke showed his lightning and thunder module using an Arduino. Details attached to the email.

- Peter Marsh displayed his mind-blowing model of Stoney Creek Bridge in British Columbia, Canada. The bridge is about 2.4m long.



Fellowship

Members socialised throughout the afternoon with much camaraderie shared.


Members also spend time looking at Jack Schmidt's (host) extensive NSW HO layout. Jack even built a 2-story garage with the top floor being his layout room. Very impressive Jack.

For a short video tour of Jack's layout and Al Wright's models, please click on the following link. Special thanks go to prospective new member Stephen Travers for providing this video.

<https://youtu.be/6nP9BgJNLUI>






Next Meeting: - Saturday 23rd July 2022 –
Darren Lee, 36 Galen Court, Cedar Vale.
Gathering from 10am.....

Division 2

Stephen O'Brien (NMRA Inc.-AR Division 2 Superintendent)

Regarding May and June meetings:-

There has been no report received for the May / June period from Division 2....

Division 3

From Peter Kendall (NMRA Inc.-AR Division 3 Superintendent)

May Meeting:-

Meeting Attendance and Apologies:

10 members

3 wives / partners

1 Guest

Apologies from Ron Bennell. Bill Black & Rod Hutchinson

ARC Report:

A great day was spent visiting Gavin and Louise's place at Fairhaven on the Great Ocean Road. A lovely modern beachside home with great views down the coast. Members enjoyed running their live-steam locos on the garden railway and inspecting the first developments of Gavin's On30 Beechy Line.



Photos from the April meeting that didn't make the last edition of MainLine





Models on display:

Grant McAdam - Narrow Gauge in the Tropics (Book)

Accucraft Peckett 1:19 Loco

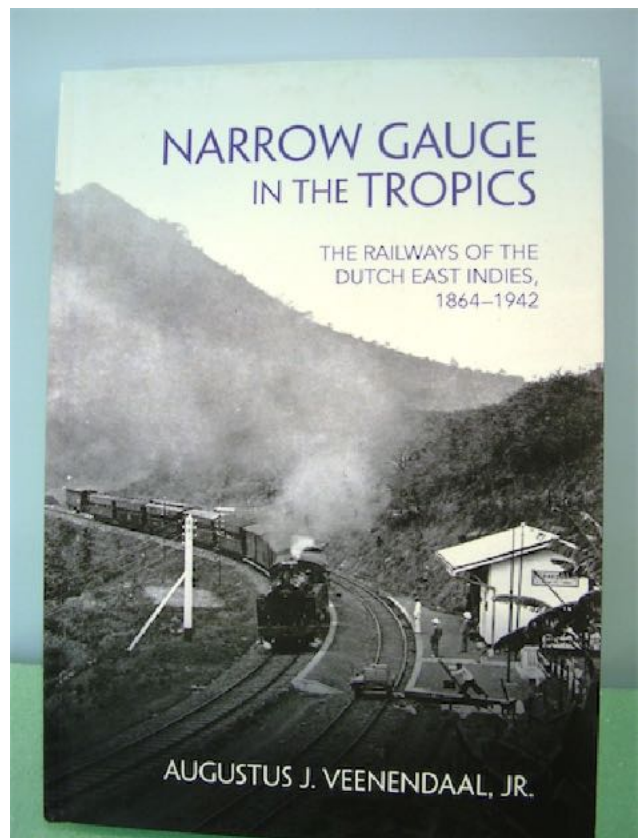
Laurie Green - Sherriff and Tobacconist O-Scale Structures

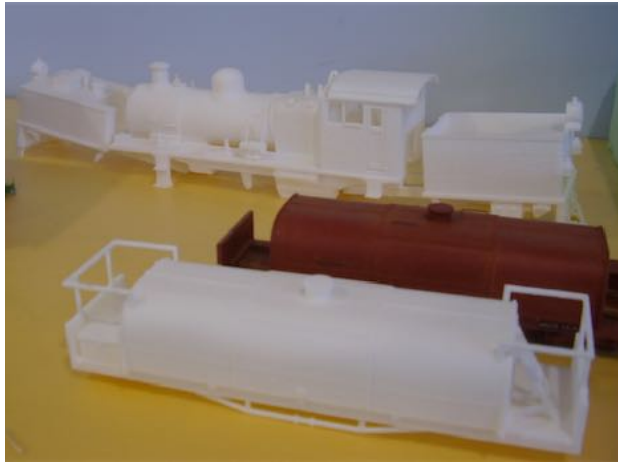
Peter MacDonald - O-Scale Hay Shed

Mick Bennie - 3D Printed Garratt and Tack Cars

Bob Thornton - 16mm England Loco

Gavin Hince - NA Loco





Next Meeting on the 19th June, 2022, Hosted by Peter & Michelle MacDonald.....



Division 4

From Frank Godde - MMR (NMRA Inc.-AR Div4 Superintendent)

May Meeting:-

Meeting Attendance:

7 members;- Dave Whibley, Alan Burroughs, Dennis Turner, Frank Godde, host Rod Tonkin plus two new members, Matt Brooks and Michel Lee.

Apologies:- Peter _____?

ARC Report:

For the May meeting we went to Ron Tonkin's place. Frank, the div four super, introduced two new members.

The first one is Matt Brooks who lives in the Northern suburbs and is interested in The New York Central in HO. Matt told us that when he was a young lad his father worked for the railways and has always had in interest in trains, and bringing one of the latest FMG locos for us to view.

Working for that company we are bound to hear some more stories of that company. Matt is in the process of organising a train room to be built on his property.

The second member is Mike Lee who lives in the same area and these two guys know one another as they both come from NZ. Mike models in N gauge and has a fascination for Louisville and Nashville or L&N, and he brought along some locos and rolling stock.

Dennis mentioned that seeing the membership was moving up we could go back to monthly meetings, I said yes but forgot to put it to the vote and Dave pulled me up on that. We talked about holding one of the meets by walking through the tunnel in Swan View. Alan has done some research on the tunnel and it is attached with the report. We are also looking for a tour at the Whiteman Park train repair workshops they run live steam in their park. It has been quite a while since any of us have been there.

While we had Dennis's attention, Frank presented him with his achievement award for



Author. Dennis had written two articles for a Narrow Gauge magazine which had been published in the united states. He had accumulated forty five points.

Dave has been busy with his 3D printer and showed us a heap of people he had produced there were also furniture items, I have asked him to write an article for the Mainline on his work with the 3D printer some photos are included.



Rod had planned to start his running schedule for his dispatcher's certificate, but we ran out of time. I rang Rod later that week and suggested that he organised a different day for his accumulated time required for dispatcher's certificate.

Alan Burrough has done some research on the Swan View tunnel which we want to visit for one of our meetings.

*The following is a report of the the **SWAN VIEW TUNNEL**
as Researched by Alan Burrough:-*

The Swan View tunnel is located at Hovea, 51k east northeast of Perth on the western edge of the Darling Scarf. The railway tracks have been removed to enable visitors to walk through this fascinating tourist attraction.

Opened on 22 February 1896*, the tunnel is 340 m long and has a gradient of 1:49. Trains travelling in an easterly direction were slowed by the gradient and by the moisture that accumulated on the tracks. Unstable granite and clay seams necessitated the installation of brick walls and a masonry ceiling - reducing the planned diameter of the tunnel.

Smoke accumulation caused problems throughout the life of the tunnel. In 1903, the driver, fireman and twenty firefighters en-route to a bushfire required hospitalisation due to asphyxiation. When, in 1942, a double headed goods could only manage walking pace up the tunnel gradient, tragically one of the drivers died from carbon monoxide poisoning.

In 1943, the WAGR began building ASG Garratts which then were used in the tunnel. These huge units had barely inches to spare from the tunnel sides and roof - accentuating the smoke inhalation problems of train crews. Industrial action from 1943 to 1945 led to a Royal Commission on safety in the tunnel. Commissioner Albert Wolfe chose to travel on the footplate of an ASG travelling eastward through the tunnel - and, unsurprisingly, recommended that ASG's not be used in the tunnel.

In 1945 a deviation around the tunnel was constructed, this thereafter being used by trains heading uphill while the tunnel was utilized for downhill movements. This practice was continued until this line's closure in 1966.

**Not 1895, as inscribed above the western entrance by an overenthusiastic stonemason!*

Sources:

https://australian-railways.fandom.com/wiki/Swan_View_Tunnel

<https://www.railwayreserves.com.au/Pages/default.aspx>

https://en.wikipedia.org/wiki/List_of_Western_Australian_royal_commissions

Next Div 4 Meeting:-

17/7/2022 is at Dennis' Turner's home, 62 Balwina Road in Greenfields at 2.00 pm....

Division 5

Kel Sherson (NMRA Inc.-AR Div5 Superintendent)

Regarding May and June meetings:-

There has been no report received for the May / June period from Division 5....

Division 6

From David Orr (NMRA Inc.-AR Div6 Superintendent)

May meeting:-

Meeting Attendance:

8 members;-

Apologies:- Nil

ARC Report:

Eight members gathered at Bob Bevan's for our May meeting.

David advised the meeting of that ARC had set up a small team inclusive of the Mainline Editor to investigate including advertising in the Mainline and was planning to re-instate the strategy committee to develop a strategy for NMRA AR.

No further development on the use of Microsoft Teams in lieu of Zoom for online meetings.



The Gathering



The meeting sends its good wishes and speedy recovery to Al Harris, our Membership Officer.

Ron Solly, our retiring Treasurer, advised the meeting of our financial state.

Ray Brownbill, our Achievement Program Asst Manager, advised the meeting of an upcoming Zoom meeting with his fellow AP Asst Managers and the new AP chair.

David advised the meeting that the March and April 2022 NMRA Magazines had been added to the library. It was confirmed that the subscription to the NMRA Magazine will not be renewed when the current subscription expires. Instead, we will focus our attention on the NMRA AR Mainline.

On the subject of AMRE, the Adelaide Model Railway Exhibition, David advised the meeting that a request for sanction had been submitted and a Sanction Form received. We now have sufficient numbers for each session so members can have "time off for good behaviour" and have a wander around. Members will be requested to keep their wanderings to a 1 hour maximum.

As you have (hopefully) read previously, we will have NT Junction at AMRE. The fascia has been painted black, it now has new black curtains and new legs.

Division 6 only has 4 of the NMRA Division 6 printed mugs left so if you want one, you'll need to make sure you let me know.

At the April meeting of Division 6, the subject of carrying all those mugs, tea, coffee, sugar, cutlery, tea towels in a large plastic crate was discussed. David suggested to the meeting that it was unnecessary to lug this thing around and that the host in most cases had sufficient mugs, etc. It was proposed and agreed that we would no longer "lug this thing around" and meeting donations would be given to the host to reimburse their expenditure. This decision was ratified at the May meeting.

Division 6 has some screens which are we put behind us when we attend an exhibition. These screens were made some time ago and have been through a couple of renovations. It was decided that this exhibition will be the last for these screens. New, lightweight screens will be made for our next outing.

Having finished with the "official" business, we then went round the members, finding out what each has been doing these last few weeks.



Vern Cracknell has a couple of items he's working on for his exhibition layout, 2 animated log cutters, which he showed at the last meeting and an animated horse.

"After showing the log cutters at the last meeting, a motor has been fitted and the shed has been built. The shed needs appropriate cuts in the floor so that it will fit over the motor. This will be signed as a "Sharpening Shed", and

numerous axes, crosscut saws and a grindstone will sit outside the "chaff bag" door. The motor is noisy but some have described this as effective sound effects. It will be set eventually within a layout top of 50 mm foam, so noise will not be a problem. The motor is a "Tamiya" Single Gearbox (4 speed) assembled in Type D format with the ratio at 344.2: 1. The motor kit was purchased from JayCar.

This animated draught horse, carved from Western Red Cedar and Air-Drying Clay, will eventually appear on a logging camp layout, will be seen static, hauling a log to the sawmill. He nods his head and lifts his front right leg. The satisfactory throw has been achieved but with the current motor it moves too slowly. Another motor will be tried. The next step will be the fitting of harness, and the adding of a walking driver holding the reins."



Ray Brownbill has been busy cleaning wheels, all 1600 of them! He has decided that he will not use any form of liquid in the future to clean his track relying on track cleaning cars only.

David Teague has been getting ready for the Adelaide Model Railway Exhibition, doing lots of small jobs on his exhibition layout.

Ron Solly is the Exhibit Coordinator for the Adelaide Model Railway Exhibition and has been working hard producing AMRE passes. He's also adjusting his Devan and Summersett Railway processes.

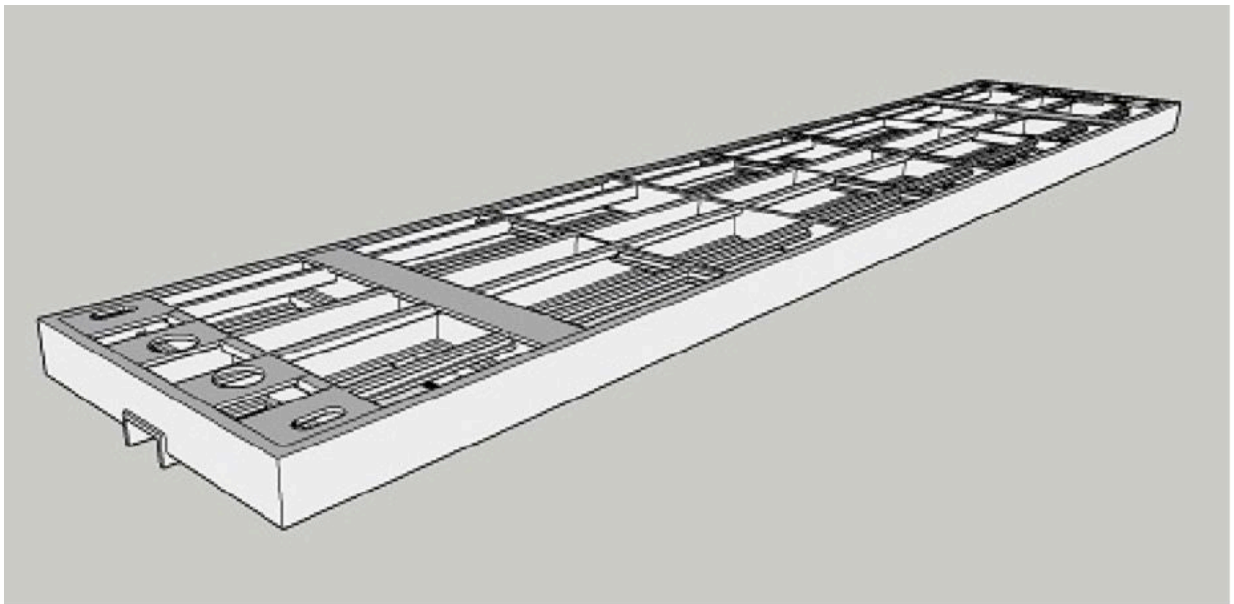
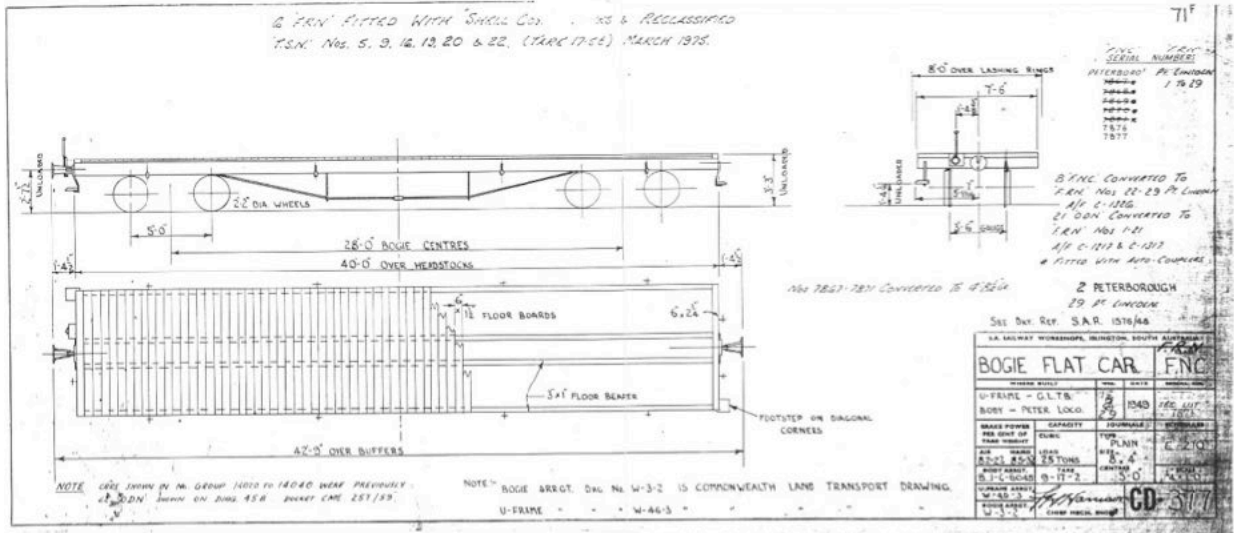
Bob Bevan, in his own words has been "fiddling". He's also started working on his Burra station for his layout.

Ainslie Brittain related an experience of wiring a layout and making sure you test your progress!

Scott Taylor told the meeting

"I've been working on a FNC flatcar in 1:24 scale, these were narrow gauge wagons used at Peterborough (2) as well as Port Lincoln (29). The underframes are based on the CLTB (Commonwealth Land Transport Board) design implemented after WW2 in an effort to help rebuild transport infrastructure on Australian Railways. The design and initial purchase came from Clegg and Co in Belgium, however the majority were built in Australia (approx 1000) and used by railways including WAGR, NAR, CR, SAR. The underframes were used in all sorts of wagon types and had their lifespan extended by recycling into other wagons.

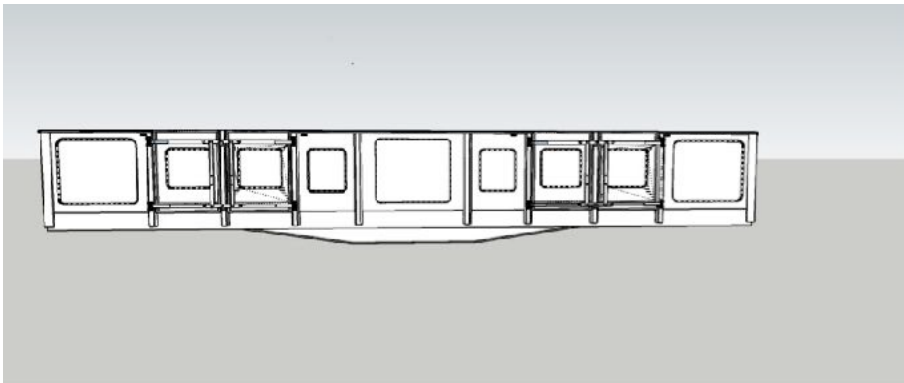
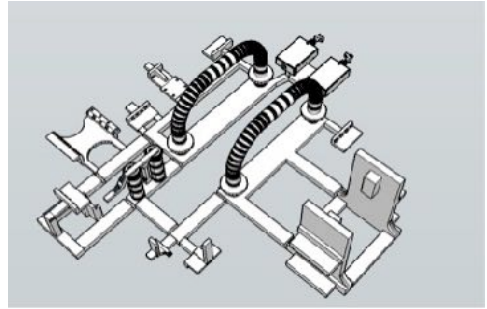
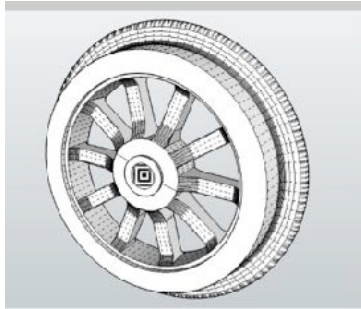
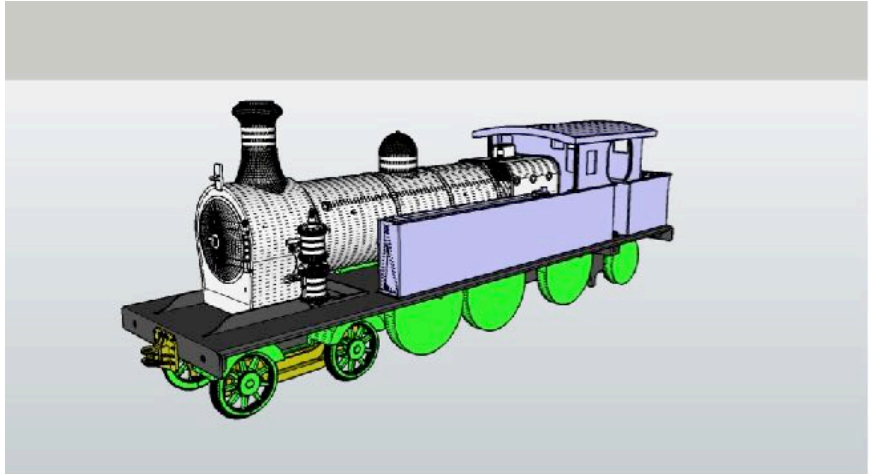
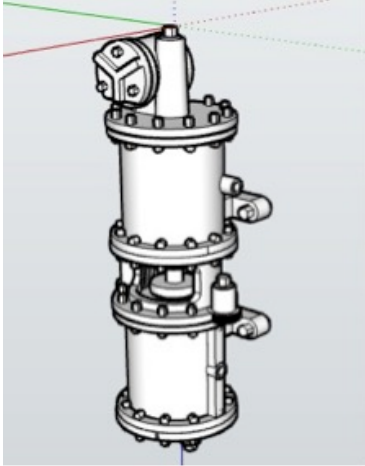
The underframe is completely 3d printed and the decking scratchbuilt in styrene. It has been designed to accept Kadee couplers as well as my own chopper couplers. It can run



on commercially available bogies or my own versions of the SAR bogies. Details will be a combination of scratchbuilt and 3d print.

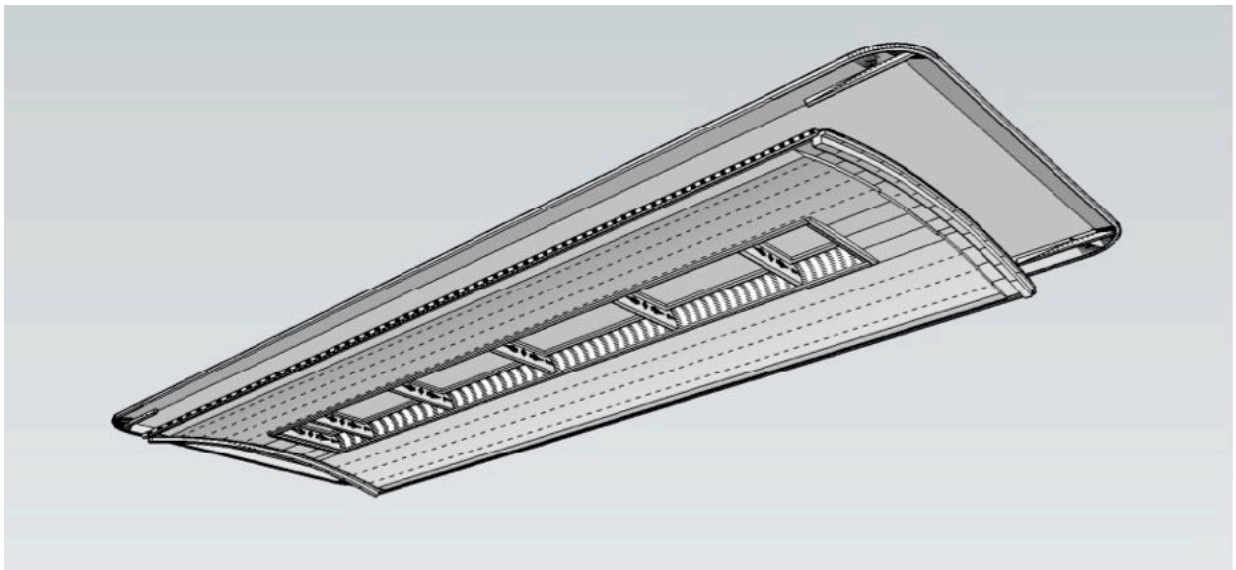


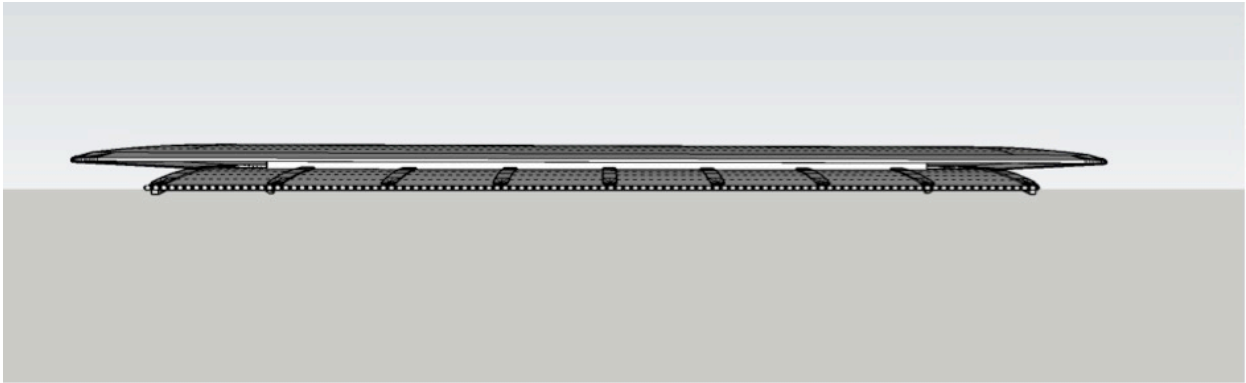
Also I've been trialling 3d printing aluminium printed parts as both details and masters for casting on the 1:29 SAR F Class Loco.



Currently I am working on a 1:24 SAR OBN class open wagon with the sides and bodywork complete and ready to test print.

As well as designing the roof of the SAR #3 passenger car in 1:24."





The meeting then retired to partake in afternoon tea (or coffee) and a look at the progress on Bob's layout.

Our next meeting is due in June but we'll be at the Adelaide Model Railway Exhibition so the next meeting will be July 9th at Ron Solly's, 9 Grey Crescent, Evanston Gardens.....[M](#)

Photos:



Division 6

From David Orr (NMRA Inc.-AR Div6 Superintendent)

June meeting:-

Meeting Attendance:

14 members;-

ARC Report:

Well, the Adelaide Model Railway Exhibition is over for another year. NMRA Div 6 doesn't have a June meeting but members get together to man some demonstration tables and offer a small switching layout for the public to drive. In the past, the switching layout was a small single module with a few turnouts. This year, we have been able to offer NT Junction for the public to drive.



Tony Mikolaj and David Orr testing NT Junction

NT Junction is a much more complex switching layout with 8 turnouts, a short passing loop, 6 industries and 2 storage/team tracks.

The intention was for adults to appreciate the complexities of switching/shunting, but no adult was willing to take up the challenge. However, there were plenty of kids

willing to have a go. Paul Wright and Tony Mikolaj shared the duties of guiding the would-be train drivers. And they did a fabulous job! They only had 2 rules - no speeding and you had to be tall enough to see the layout.



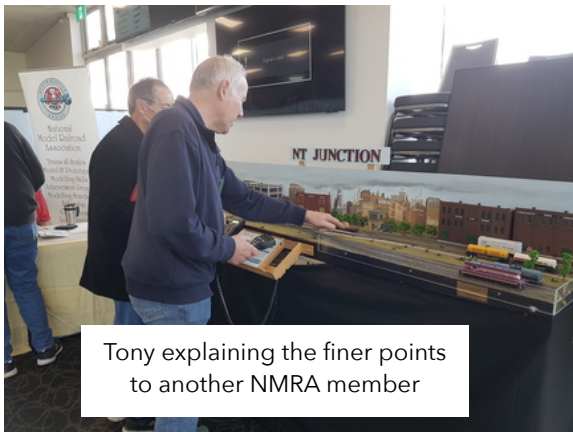
Paul guiding one of our future members perhaps?



Another day, another train driver



NT Junction was modified from DC to DCC with 2 throttles and 2 locos. As it turned out, the 2nd throttle and the 2nd loco were removed as they weren't being used.



Tony explaining the finer points to another NMRA member



We all felt that NT Junction was very successful

Further modifications are planned to remove the turnout solenoids and the switches on the panel and replace them with 2 pole 2 position slide switches connected to the turnouts via rod in tube. The new panel will then just indicate the route setting.



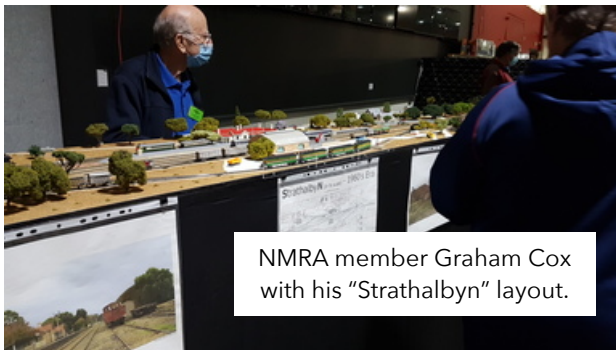
Members at the demonstration tables included Ray Brownbill, Jeff Barclay, Steve Weedon, Paul Wright, Peter Jackson, Michael Robinson, Tony Mikolaj and Scott Taylor. Some were making trees, some were assembling rolling stock kits, some were scratchbuilding, some were adjusting the running qualities of rolling stock.



Other members answering questions included Ron Solly, Neil Tonkin, Ainslie Brittain, Jane Robinson and David Orr.

Our next meeting will be July 9th at Ron Solly's, 9 Grey Crescent, Evanston Gardens.

What follows are some photos from the exhibition.





Whyalla Model Railway Society's layout "Marree"



Peterborough



Somewhere in the Mallee



NMRA member Vern Cracknell's layout "Running the Gauntlet"



NMRA MMR Vern Cracknell (on the left)



Noarlunga Model Railroader's layout "Lakeside"



South West Germany



Thanks to all members for their assistance and making the Adelaide Model Railway Exhibition 2022 a good meeting.....M

Division 7

John Arrowsmith (NMRA Inc.-AR Div7 Superintendent)

Regarding May and June meetings:-

There has been no report received for the May / June period from Division 7.....M

Division 8/9 (Northern NSW)

From Ian West (NMRA Inc.-AR Div8/9 Superintendent)

May meeting:-

We have not had a meeting since our last report. CCRMI members still meet on Friday nights and Saturday mornings, weather permitting. It does get very wet at the Coffs Harbour show ground.

Our next meeting, at the home of Paul and Erica Baker, 1 Palm Tree Drive Boambee, on 19th June will incorporate the CCRMI AGM. The get together will start at 11am, with lunch to follow. Members are asked to bring a plate to share.

As we have been unable to have meetings, I have attached the Station Master's Residence application that I used for my AP Structures. I must get on with applying for a few more certificates.

Structure 4: Stinson Station Master's House

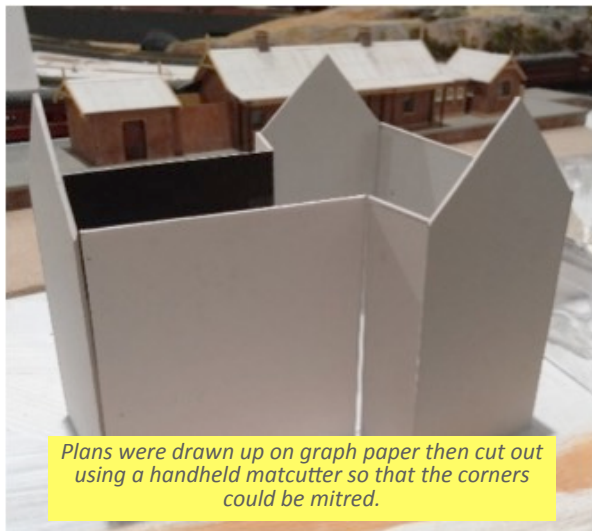
This was based on a photo of the Bathurst Station Master's House found on the internet and was built in 2020.

Plans were drawn up using the images from the internet. The back of the house was modified to make the structure smaller and then the conservatory was added for interest.



Materials used:

- Graph paper
- Framer's matboard
- Windows and doors were leftovers from other kits.
- The roof was shingles downloaded from the internet and individually cut.
- The conservatory is made from an Oxford model car display box.
- Chimneys are framer's matboard with biro insert pots.
- Finials are cocktail pick ends.
- Verandah columns are Virgin airline coffee stirrers.



Overall house dimensions: 150mm x 120mm x 150mm (including chimneys).

Garage: 85mm x 50mm x 60mm (not including the weathervane).

Construction:



Windows, doors and sills added and painting begun.



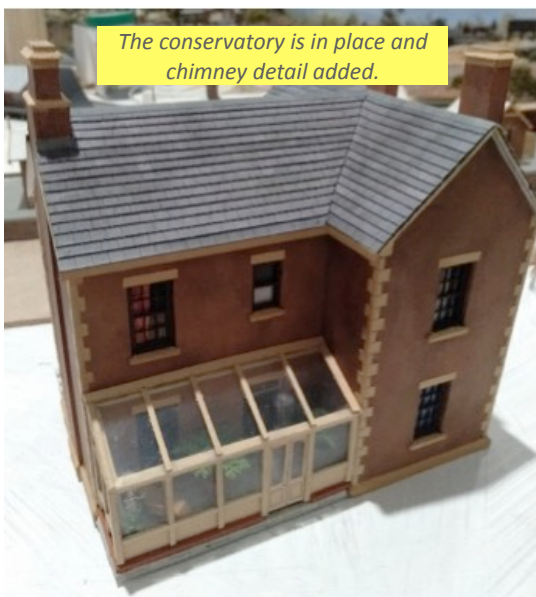
Corner detail added as well as window/door decoration.



The wire for lighting is in place and the roof is going on.



The slate roof is complete.



The conservatory is in place and chimney detail added.



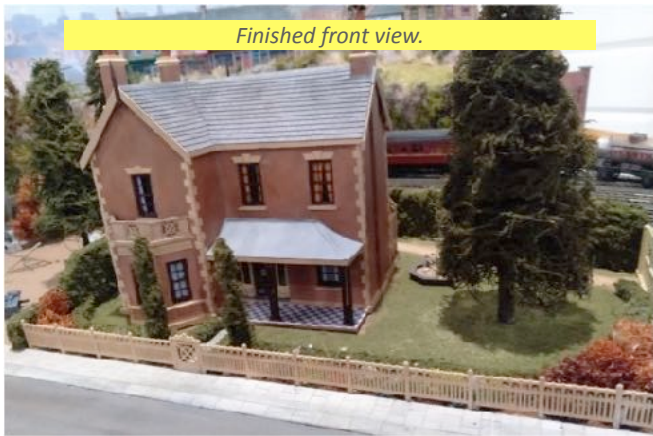
Close-up of the conservatory.



The front verandah is on.



Final view from the back.



Finished front view.




A garage was added.



Every garage needs a weathervane.

This was my most detailed structure as it was one of my most recent and we had taken many progress photos to send to our children. They are not interested in trains but enjoy seeing the progress made in the room and will always ask what is new when they visit.

I am hoping to encourage a few more members to apply for an Achievement Certificate but haven't been successful yet. Many find the process too difficult.....

Division 8/9 (Northern NSW)

From Ian West (NMRA Inc.-AR Div8/9 Superintendent)

June 18th meeting:-

Meeting Attendances:

16 attendees

6 apologies

We held a meeting last Saturday 18th June at the CCMRI Club House to coincide with their AGM. Seventeen members were present, and we had six apologies.

It was a beautiful day and we were able to sit outside, under the awning and enjoy a sausage sizzle afterwards.

We are still struggling to organise a meeting in Taree. I have contacted four people so far. The last reply was to say,

"A meeting was held at our clubhouse recently and it was agreed by all members at that meeting they do not wish to have a meeting of the NMRA at the clubhouse. Unfortunately, now, most members are not too interested in these meetings as they all feel that the NMRA has nothing to offer them. All agreed that any NMRA member was welcome to visit our club anytime. No member was forthcoming in hosting a NMRA meeting".

Members were informed about:

- New Division 5 Div Sup, Philip Sharp
- Division 7 hosting a mini convention in November.
- The new NMRA website will be available soon. (Today's email regarding going live on Tuesday will be sent with this report.)
- Virtual convention idea - no one was interested
- The New England Convention information was presented with little interest. Wendy and I are looking forward to going.



Paul Baker was presented with a thank you plaque.



Mark, Geoff, Rob and Allan enjoying the sun while the sausages were cooking. Allan was named the CCMRI Clubman of the year.

Ian mentioned "Will James: Railways" (www.youtube.com/c/WillJamesRailways) at the now Wednesday night (instead of Friday night) working bee of the CCMRI and was surprised that no one had heard of him. Ian finds Will's monthly report most helpful as Will keeps you updated with new products and upcoming events. Ian was suggesting that they advertise their January exhibition on this medium as the New England Club have done with their convention.....



Division 10

Pat Britton (NMRA Inc.-AR Div10 Superintendent)

Regarding May and June meetings:-

There has been no report received for the May / June period from Division 10....

What's in the Next Edition

- *Jeff Lee - MMR describes how he built his Stub Ended Terminal on a new section of his layout.*
- *Rob Nesbitt outlines how Overhead Catenary works in the real world and how he duplicated a working catenary system on his layout.*
- *Arthur Hayes - MMR has another instalment of Trackside with the SM series, with an article on What Is That? (load).*
- *Paul Marrant - Grand MMR continues to share his knowledge on how he approached achieving his MMR qualification by outlining how he completed the 'Prototype Modelling AP'.*
- *Gerry Hopkins - MMR describes some valid reasons for having a Fiddle Yard.*

& lots more as usual