

## NMRA Australasian Region Directory REGIONAL COMMITTEE

President: Graham Young	(07) 5479 0339	president@nmra.org.au	
Vice President: David North	(02) 9975 6436	vicepresident@nmra.org.au	
Secretary: David O'Hearn	(02) 9097 9903	secretary@nmra.org.au	
Treasurer: John Gillies	(02) 6248 8408	treasurer@nmra.org.au	
Pacific District Director			
<b>Robert Peterson</b>	(02) 9871 4157	director@nmra.org.au	
Members:			
Sam Mangion MMR	(02) 4399 2150	sam@nmra.org.au	
Steve Chapman MMR	(02) 9626 9979	steve@nmra.org.au	
Charles Clarke	(07) 5499 7283	charkes@nmra.org.au	
Public Officer			
Stephe Jitts MMR	(02)6226 5695	publicofficer@nmra.org.au	
Trustee			
1st President and AR Trustee	John Saxon MMR HLM		

SUPERINTENDENTS

Div 1 Qld	Martyn Jenkins	0407 637 607	div1sup@nmra.org.au
Div 2 ACT	Stepe Jitts MMR	(02)6226 5695	div2sup@nmra.org.au
Div 3 Vic/Tas	Allan Ogden	0419 358 870	div3sup@nmra.org.au
Div 4 WA	Rod Tonkin	(08) 9309 5338	div4sup@nmra.org.au
Div 5 NZ	Kelvin Sherson	(04) 234- 8577	div5sup@nmra.org.au
Div 6 SA	Jane Robinson	(08) 8270 1002	div6sup@nmra.org.au
Div 7 NSW	Les Fowler	0411 266 196	div7sup@nmra.org.au

Div 8 Northern Rivers	Alan Harris	(02) 6656 1638div8sup@nmra.org.au
Div 9 Mid Nth Coast	Chris Minahan	(02) 6559 3516 div9sup@nmra.org.au
Taiwan Sub District	lvan Yih	886 3 4961368 Taiwansup@nmra.org.au

#### REGIONAL VOLUNTEERS

A.P. Regional Mgr Gerry H	lopkins FNMRA	(02) 4329-0242	ap@nmra.org.au
A.P. Asst. Mgr, ACT Ross Ba	lderson	(02) 6238 1003	apviceact@nmra.org.au
A.P. Asst. Mgr, Vic Laurie G	Green MMR	(03) 9744-5188	apvicevic@nmra.org.au
A.P. Asst. Mgr, S.A. Ray Bro	wnbill	0417 849 630 ap	ovicesa@nmra.org.au
A.P. Asst. Mgr, QLD Laurie N	McLean MMR	(07) 5471 0212	apviceqldsth@nmra.org.au
A.P. Asst. Mgr, W.A. Phil Kni	ife MMR	(08) 9948 1067	apvicewa@nmra.org.au
A.P. Asst. Mgr, NSW John Pa	arker MMR	(02) 4341 6347	jfparker@bigpond.net.au
Librarian Warick	Fox	(02) 9686 7639	librarian@nmra.org.au
Regional Contest Chair Gerry	y Hopkins FNMRA	(02) 4329-0242	contest@nmra.org.au
Editor - MainLine Rod Tor	nkin	(08) 9309 5338	editor@nmra.org.au
Web Master Wayne	Eagle	(02) 9627-9892	webmaster@nmra.org.au
Web Administrator Gerry H	lopkins FNMRA	(02) 4329-0242	updates@nmra.org.au
Education Chairman Peter B	urrows	(02) 4329 2541	education@nmra.org.au *
Convention Chairman 2018 Arthur Hayes MMR convention@nmra.org.au			
Membership Erik Ber	nnett	(02) 9997 7971	membership@nmra.org.au
33 Kananook Avenue Bayview, NSW 2104			

Editor

Rod Tonkin

Editorial assistant

Alan Burrough

#### Contributions

All members of Australasian Region are invited to submit articles of a railway nature for publication in Mainline. Submissions in Word or JPG format can be Emailed to

editor@nmra.org.au. or to my home Email address rjtonkin@iinet.net.au .

Original uncropped photo files would be preferred.

Please ensure any contributions of copyrighted material have written approval from the copyright holder.

#### Disclaimer

All comments published are the views of the author/authors and not the views of NMRA AR.

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

### Target dates for future issues

#### September October

Content submissions 15 October 2018

Publish date on web 30 October 2018

November December

Content submissions 10 December 2018

Publish date on web 20 December 2018

#### Cover photo

QR 1460 class 1521 leading the Saturday "Inlander" into Mt Isa in 1982 at the end of its twenty five hour trip from Townsville. The louvered van and refrigerator car attached behind the locomotive are loaded with priority freight for QR customers in Mt Isa

Photo by the editor.

#### Contents

#### **Articles**

•	Turning back the clock	Arthur Hayes MMR	9
•	View dividers and concealed lighting	Rod Tonkin	11
•	Permanent Way maintenance on a working layout	Rod Tonkin	13
•	A modellers guide to bulk materials handling	Rod Tonkin	22

#### Regular features

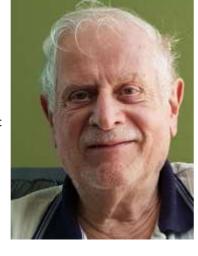
- President's thoughts
- Editorial musings
- Divisional round up
- Convention news
- Achievement program awards.
- Australasian Region directory
- Coming events
- Prototype observations

#### Editors note

The concentration of content in this issue on Division news and our up coming Region Convention is a combination of superb modelling displayed by our members, concentration by office bearers on the up coming Region convention and a dearth of articles from members.

## **President's Thoughts**

We are approaching the Annual Conference to be held this year at Helensvale on the Gold Coast. The Committee has put a lot of time and effort to make this a worthwhile event. It is being held over the period Friday 21<sup>st</sup> to Tuesday 25<sup>th</sup> September. The major part will be on the weekend when there will be 21 clinics. Our speaker at the Saturday night function will be Lionel Strang who will be using a video link. A set of Newsletters can be read on the web site.



The Australasian Region has purchased a supply of the latest Clearance Gauges for scales HO & N. The pricing of these is being finalized at this time. If you require a gauge then please contact Dave North at <a href="mailto:vicepresident@nmra.org.au">vicepresident@nmra.org.au</a> Your Committee is looking at other items that may be stocked "In Store" that are required by modelers.

Graham Young.

President.



HO scale and N scale
NMRA Standards Gauges
now stocked by
Australasian Region



#### Guest Editorial

It's amazing how long it takes for some technologies to reach the general public. You would expect this is large objects simply because of their size; but small objects you would think could be controlled quickly because there is so little to process. I remember some years back, it was general thought that it would be 25 - 35 years before new technologies in motor racing would reach the family car. One of the first of these racing to family car additions occurred way back at the time of the first Indianapolis 500 in 1911 when Ray Harroun fitted a rear-view mirror to his Marmon Wasp, a stripped down and souped up car, to win that first "500". Presumably helped by knowing where his opponents in that race where gave him a win at a 74mph average. Not bad for 1911.

At work, we first became aware of and used supercaps (super-capacitors) way back about 1980 and these are the main workers in Keep Alive, Stay Alive, Keep Rolling, etc. devices that are now proliferating our DCC decoders as an add on. There is an article about them in the latest Model Railroader (DCC Corner by top modeler Larry Puckett on page 60, Model Railroader July 2018). What a huge difference to our hobby these might have made if they were employed in controllers or locomotives back in 1980. A lot of our thrust and learning in new technologies is driven by 'fashion' and what manages to appeal at a particular time. Perhaps supercaps seemed rather dull back in the 1980s. Supercap presentation hasn't changed all that much and the Jaycar catalogue shows that perhaps the most useful for us is catalogued as RU-6705, a 5.5volt job with a capacity of 1 farad and priced at \$5.95 each. These are very compact, you would need three for each loco unit so what's the point of making them yourself when you can buy the units ready to install about the same price. But keep your eyes on supercaps as they are being tried in Europe as night-time back-up for large solar farm panels on an enormous scale that will make power-houses and coal almost laughable. To get some idea of this, just think of supercaps as big a gasometers and sometimes installed at old gasometer sites to keep night time electricity from solar panels going strong. Like the car case above with Ray Harroun, we can probably expect the hobby use to predate the more essential use by guite a number of years,

Another thing that puzzles me is the lack of use over many years of contact "wetting" in MR. In telephone exchanges, which used to have millions of contacts in their relay switching; fundamental contacts were used to switch DC but this often had a lower voltage AC overlaid on them to break down the contacts reluctance to pass current due to 'dirt' build-up on the contacts. There is a little reference to this in some of the very early Model Railroad Magazines but it was generally neglected. Now it isn't so important with DCC as that technology uses AC on the track anyway and thus in itself, acts as contact wetting and if no other change is made then AC will probably operate at getting voltage across the rail and the wheel tread better than DC will. Once again we can only muse at the difference that would have made in much earlier times.

When we look back at where we have come from in in our hobby, we can be thankful that

there were such thinkers as Lin Westcott, Frank Ellison, Bruce Chubb, Frank Taylor, John Armstrong, Paul Larsen, etc. and the smart people who came along after them and brought many of their ideas to practicality or improved on them. There is some discussion going on about what football players ought to be lionized by statues at Lang Park. You could justify an avenue of statues leading up to the front door of the NMRA headquarters honoring these pioneers above and many like them. Such has been their contribution to the enjoyment, the sustaining, the easing and the healing of so many modelers over quite a few years now.

But we have another advantage living in an NMRA influenced world. That is, we can think of the past and all its innovation and glory and consider the future of railway modelling and the NMRA and realize that it should go on for many years yet. Over many years we have seen great advances. From the crude first electric powered model locomotives we now have sophisticated mass-produced, beauties that look like the real thing in miniature, sound like the real thing, can be made to operate like the real thing and cost far less than the previous offerings did if you consider inflation over the years. Previously some items were so expensive that it made classes of modelers, those just hanging on in the hobby and those who managed comfortably in the hobby. With such advances in having the expensive items evened out over the years our hobby has become much more democratic.

It doesn't take much to realize that there are places in modelling that need a lot more attention and we are slowly getting around to some of these. The brass rail has gone, the funny looking couplers are gone, lighting can be achieved in many ways and for many purposes that really does look like the real thing and it's cheap, We can choose an era to model or even a couple if you so wish because now you can afford it and the stuff is there. What a huge difference Fast Tracks has made to the appearance of track. Electro-static grass has killed off sawdust grass forever. Various epoxies have revolutionized water, helped in gluing, etc. Control over out trains has improved markedly due to DCC, supercaps as mentioned above have improved reliability. With some of the ideas bubbling to the surface of the railway modelling cauldron we can expect huge improvements even though along the way we might wonder were some ideas are going.

I remember when the internet was first starting, how disappointing it was as far as model trains were concerned. So little had reached the web in those early years. Then there was an avalanche so that now I wouldn't be surprised to learn that RAILWAY Modeling's one of the best covered and most used subjects on the web. It must surely rank very highly when it comes to pastime and hobbies.

#### Ian Vennables





### **Regional Convention 2018**

You are invited to join us from 21<sup>st</sup> – 25<sup>th</sup> of September 2018

#### **VENUE:**

Helensvale Culture Centre on the Gold Coast

#### THERE WILL BE:

Something for all Modellers of all Prototypes / Gauges / Scales.

#### **Proposed Program**

#### Friday 21st.

- Layout Tours of Brisbane and Gold Coast, private and club layouts. Some Operations sessions are available by pre arrangement (See convention website)
- Registration.

#### Saturday 22nd.

- All day program, choice of 12 Presentations
- Demonstrations, Hands on, Displays, Trade, Society Stands
- Convention USB with Presenter's Notes
- Complimentary Tea and Coffee between Sessions
- Morning & Afternoon Tea, Box Lunch provided
- Banquet Dinner at local Club with Speaker
- Ladies Tour

#### Sunday 23rd

- Presentation to 11:30.
- Visit local club and layouts
- Or ride the "G:link"(own cost).
- Ladies Discount Shopping Nearby to convention location

#### Monday 24th

Self-drive & Self-paced Layout Tours/Operations

#### Tuesday 25th

Why not take a drive to Toowoomba and see:

- Visit the Toowoomba Model Railway Club (100% NMRA)
- Visit "Downs Steam Railway/Museum"
- Visit Award Winning Gardens (Yes it's the Carnival of Flowers week)
- Toowoomba Railway Station
- Ride on a heritage diesel Train to Spring Bluff
- Or drive to Spring Bluff with some train spotting on the way (Nov-Dec 2017 MainLine)











There will be a self drive layout tour program. You get to read a bio of each layout and some



sample photos to help you determine which layout you would like to see. The self drive tours will be available on

Friday 21st and Monday 24th September







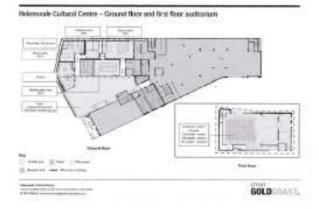
#### Details of the Venue:

Helensvale Cultural Centre

http://www.goldcoast.qld.gov.au/community/hele nsvale-library-cultural-centre-3445.html

Location Comer Lindfield Road and Sir John Overall Drive, Helensvale







Convention Dinner will be held at the Runaway Bay Rugby Leagues Club on the Saturday night

#### INTERESTED, BUT NOT SURE!

Come and enjoy the fun! A regional convention will allow you to:

- Participate in great modelling activities with fellow likeminded people
- Maybe learn new skills and techniques
- Build the Model Railway network
- Meet old friends and make new friends
- Exchange knowledge
- Layout tours and Open houses
- Display Layouts at the convention venue
- Trade stands at the convention venue
- Convention Dinner









For further information please check out the NMRA Website at the following link:

https://www.nnra.org/region-conventions#Australasian

Contact: Arthur Hayes (Convention Chairman)

abchayes@optusnet.com.au

### 2018 Convention Self drive layout tours list

Layout name	Scale	Owner
Belair	N	Martyn Jenkins
Black River	N	Trevor Philips
Penny Creek	N	Peter Pennycuick
UPBNSF Joint Division	N	Duncan Cabassi
Westgate	HO, HOn3.5	Arthur Hayes
Casino	HO, HOn3.5	Craig Mackie
Trangi Valley	НО	Peter Dushra
Giligulgul	HOn3.5	Peter Dushra
Duck Creek	HO, HOn3.5	Bob Richardson
Narrawa	НО	Phil Flynn
BNSF Birdswood Sub	НО	Gregg Malmborg
Loewy Division PRR	НО	Charles Page
Altkloster (East Germany)	НО	Kimball Thurlow
Weston	НО	Ernie Cook
Morpeth	0	Trevor Hodges
Union Pacific Club	НО	
Railway Modelling Club of Quee	nsland HO, N	



#### "Non-Rail Tour" "The Green behind the Gold"

Saturday 22nd September 2018. Visit Tambourine Mountain and Canungra.

09:30 am Depart Helensvale Culture Centre

**10:00 am Explore Long Street.** Time for a coffee and lunch at your own cost.

Tamborine Mountain is a "shop-a-holics" paradise! The famous "Gallery Walk" boasting over 60 art, craft, gift and nick-knack shops that lures thousands of visitors to Tamborine Mountain every year! From fine art to culinary delights, you will find something to suit all tastes and budgets in this fascinating stretch of fun shopping!

1:00 pm Depart Long Street

1:15 pm Arrive Joalah Falls

Curtis Falls track is a moderate grade with steep stairs down to the waterfall. This is a 1.1 km return track. Allow approx. 30 minutes.

Or explore the near-by St George's Anglican Church, Curtis Falls Lollies and Ice-Creamery

**2:00 pm Depart Joalah Falls** and drive down Tambourine Mountain Road overlooking the Canungra Creek Valley.

**2:30 pm Arrive Canungra.** Time for a coffee or explore this old sawmilling town.

3:15 pm Depart Canungra.

4:00 pm Arrive back at Helensvale Culture Centre

**Sunday 23nd September 2018.** 

09:30 am Depart Helensvale Culture Centre

**9:45** am Arrive Harbour Town Outlet Shopping Centre. There is time for a coffee and get your bearing before the shops open.

Harbour Town is Australia's largest Outlet Shopping Centre boasting more than 240 stores. Bursting with big-name brands and even bigger savings.

11:15 am Depart Harbour Town Shopping Centre

11:30 am Arrive back at Helensvale Culture Centre

## Turning the Clock Back.

Arthur Hayes MMR 582.

You often hear us old blokes talking about the good old days, and how much we would like them back. Our hobby allows us to "Turning the Clock Back" or recreate our history. Modelling the local prototype has allowed me to relive them good old days.

When I started building my layout I was looking for a suitable station, the size of the yard called for something beyond the standard structure. The layout is freelance with rolling stock around the sixties era. I was looking for something to fit that period. The platform needed to hold around seven to eight carriages. The station was also a junction with a branch line leaving the yard. I was looking for some operations where I could connect the branch rail motor with the main line passenger train.

As a boy I lived in western Queensland at Charleville, ten miles south was the junction station of Westgate. This is the name I gave by layout and this station. The main line passenger train the "Westlander" continued on to Cunnamulla, a smaller train known as the "Flying Flea" made the connection to Quilpie. The Charleville station had a small dock platform, the mixed train to the east would depart from this platform. The current station at Charleville is a brick/concrete structure built in 1956, just a bit too modern for me. The station was built because the timber structure was burnt down a couple of years before. I recall the night it occurred, but do not recall the building.

I attended the Charleville Railway Centenary in 1988 and purchased a copy of the Centenary

7. Railway Station Charleville, v. o

book. From
time to time I
would read the
booking looking for information about
the area. Then
one day the
penny
dropped, jack
pot, the book

has three photos of the original timber station and a plan of the yard dating back to 1920/1930s. With more research I was able to find more photos of the station on the internet in the State Library photo site. All up I ended up with photos of all sides and ends over a ten year period.

With pen and paper, I drew up a number of plans. To fit the building on the layout a small extension was required. Adding a small shelf not only gave me the place, but made the building a feature.

The station was built from Evergreen styrene. The 1930 plan showed a building a short distance off the platform, in relation to my station the building was off the layout. The building contained Gents Toilets, Guards Room and a Lamp Room - all necessary services required for a depot station. The town had sewerage in the early 50s, to accommodate this milestone,

and to bring the station into the 60s this building was added to the platform.

Only one question remains, what colour do I paint the station, the photos are black and

white. Some colour variation is shown on the window shades.
Doing research on another subject I came across a post card printed in the early 1940s of one of the Library photos which had been coloured. Bingo, that completes the building.



Arthur at

Work



The LED lights were pur- . chased from DCC Concepts and used to make it look like someone is at have work. The bitumen platform surface and road in front of the station is wet and dry sand paper. The station has many scenes to bring back the era that I recall. hood

Vehicles, there is a US Army motor cycle with a side cart. One of the local mechanics had such a machine he used to collect spare parts from the mail trains. In them days the passenger trains carried more than just passenger luggage. This is reflexed in the items on the platform barrow, film cans for the local picture theatre, canvas ice cream shipper, small parcels and bushel case of fruit to name a few. Then there are passengers on the platform, rubbish bins, brooms, passengers purchasing tickets, employees in the meal room. All make the

scene look real.

A structure like this can go towards your Master Builder - Structures Certificate, add rolling stock built toward your Master Builder Cars/Motive Power certificate and you can build up prototype scene on your layout. Four

NEBEL TERRITOR

different types of models are required.

Around the station you will find terrain to reflect station operations, carriage watering facilities, ash from steam locomotives cleaning their fireboxes and a few weeds in the station dock platform. All fits into the station yard scene and layout background.

Off the end of the platform is the engine shed. I was able take photos of the shed soon after the arrival of the 1700 class locomotives in 1966. The area has been backed dated to steam era with the arrival of the early diesels.

In my case I been able to turn the clock back to my childdavs do-

ing my AP Certificates and improve my modelling skills.

**Arthur Hayes MMR's** Westgate layout is included on the layout tours at this years Region Convention at the **Gold Coast** 







## View dividers and concealed lighting for Wombat Gully-Two

#### Rod Tonkin

An essential requirement for Wombat Gully-Two is only being able to see one scene on the layout at a time. This requires view blocks to prevent you seeing right across the layout. With the mainline track 1,250 mm above floor level, I decided 450 mm high view blocks would be sufficiently tall to prevent viewers seeing over the view blocks. This makes the top of the view blocks 1,700 mm tall. I'm 1,800 mm tall and I can't see over the view blocks.

I decided to anchor the view blocks to the ends of the peninsulas. The peninsula end view blocks were screwed to the layout framing. The end view blocks have 42 mm by 19 mm vertical end members and a 42 mm by 19 mm top cross member. The end view blocks are sheeted with three mm plywood. 42 mm by 19 mm pine framing anchored to the peninsula end view blocks and the layout decking supports the view blocks for 1,800 mm along each peninsula. A frame of 42 mm by 19 mm pine 1,200 mm long is anchored to the layout decking between the two peninsulas.

I assembled three lengths of three mm plywood 1,200 mm long by 450 mm tall with the outer veneer layers running vertically. The centre section of this assemblage was screwed to the framing attached to the layout decking between the two peninsulas. Each end of the plywood assembly was bent and screwed to the peninsula view block framing. The shape of the curve in each plywood section is different. This difference in curvature is due to the timber veneers used in each sheet of plywood. The plywood sheeting forms the majority of the view block in the well between the peninsulas. The remainder of the length of the view blocks between the peninsulas were clad in Core flute board.

The view block on the access through the car port side of the layout is clad in three mm MDF sheeting. This view block runs for the length of the peninsula. It is attached to a 42 mm by 19 mm post attached to the layout frame at one end and the 42 mm by 19 mm pine framing anchored to the peninsula end view block at the other end. The section between the end support post and the 42 mm by 19 mm pine framing was let find its own position. Vertical sections of 42 mm by 19 mm pine were screwed to the three mm MDF sheeting as stiffeners. These vertical stiffening pieces were secured to the layout decking with steel angle brackets purchased from Bunnings.



The view blocks between scenes and the staging yard are only clad on the scene side. This leaves the view block framing visible from the off stage side of the layout. I intend putting this exposed framing to good use to support shelves adjacent to the staging yard for storing rolling stock.



A feature I liked on the original Wombat Gully layout was the concealed lighting. I was determined the new layout would be similarly equipped. I especially liked the ability to operate the layout in daylight or by moonlight. The original Wombat Gully layout had fixed shelving above the layout. I was able to use the underside of the shelving to support the facia and the concealed lighting system.

The concealed lighting on the new free standing layout required some thought. I decided to use the view divider structure to support the concealed lighting system. 70 mm by 19 mm pine cross members mounted on the view dividers support the facia strip on each scene. The facia strip supports facia hiding the lights and the concealed lighting system. I needed a step ladder to be able to screw the cross members onto the top of the view dividers. I found predrilling starter holes on the cross members made attaching the facia strip to the cross members easier. You can't get long lengths of 42 mm by 19 mm pine for the fascia. I spliced mine together using off cuts of 42 mm by 19 mm pine as concealed joiners. I found I needed a post at one end of the Rod's Reach scene to support the facia. It will be painted black (The proverbial black stump) to make it less visible once the scenery is installed. The resulting structure is reasonably sturdy, however swinging or climbing on the facia structure will I guarantee cause severe injury.

I'm reusing the lighting units I had previously installed on the old Martindale Creek and Wombat Gully layouts. I had installed LED string lighting at Simonton and LED Batten lights at Damien's Crossing. The LED string lighting system was suitable to illuminate Rod's Reach. The LED lamp units suited the illumination requirements of Pauline's Bend and the fluorescents off the old Wombat Gully layout illuminate the staging yard.

I used double sided mounting tape to secure the LED string lighting to the rear of the facia at Rod's Reach. I peeled the old mounting tape off and installed new 12mm wide interior dou-

ble sided mounting ch LED string light clusters tape on each LED cluster.

> The LED lamp lighting at Pauline's Bend was a little more complicated. The LED lamps are secured by clips screwed to the mounting sur-

found it easier to build mounting battens to support the LED lamp units. I installed



the clips onto the mounting battens and screwed the mounting battens onto the facia support. Once the mounting battens were secure the LED lamps were clipped into place and powered up.

Once the Pauline's Bend daylight lighting was installed and operational, I installed the blue LED strings to provide the moonlight lighting effect for night time operation. The blue LED light strings are Christmas tree light sets powered by a three volt DC output wall wart. The blue LED light strings originally installed at Simonton on Martindale Creek-2 are now installed on the Pauline's Bend scene. I found the white Corflute sheeting on the back scene let the lights from the staging yard detract from the moon light effect at Pauline's bend. I've since replaced the Corflute sheeting in this location with thin plywood.

The staging yard lighting is purely functional. The three compact fluorescent lamps off Wombat Gully were mounted under a length of 70 mm by 19 mm supported off the cross members mounted on the back scene.

The lighting system is powered from a series of power boards mounted behind the back scene. A four outlet switched power board allows me to separately power up the track power supply, staging yard lighting and the programing track, the two modelled station areas lighting and the Pauline's Bend moonlighting. Non switched power boards fed from the switched power board connect the separate units in each of these areas. Separately powering the track power and modelled station area lighting allows me to work on the scenery and structures at the two modelled scenes without power on the track in these areas. Tools left on the layout are great at inadvertently creating short circuits with DCC power on the track.



## Permanent Way Maintenance on a working layout

Rod Tonkin

Whoever came up with the term "Permanent Way" for railway track work either had a warped sense of humour or no experience maintaining railway track work. The geometry of real railway track changes constantly. The prototype regularly inspects track work and plans maintenance works to maintain the track to within allowable geometric tolerances.

Reliable model railway operation needs well laid and well maintained track work. You may have laid your track well but things can change with time and weather conditions. My approach to model railway track maintenance is if it's working reliably, leave it alone. I've found defects can usually be readily detected and easily corrected.

The track on Wombat Gully was laid in 2009. Up to recently it had reliably operated a wide variety of HO and OO scale rolling stock. Recently the points into the malting works siding at Pauline's Bend kept derailing my BR 40 class diesel and the crossing loop at Rod's Reach began derailing four wheeled wagons.

There were no obvious signs of a problem at Wombat Maltings. There were no obvious kinks in the track, misaligned rail ends, sharp rail ends or out of gauge sections on the points lead-



ing into the malting works siding. A small spirit level was then used to check the cross level of the track through the point work. The spirit level showed

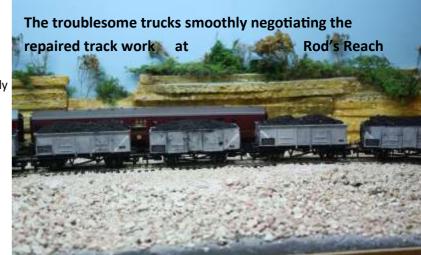


the rail on the outside of the points was considerably lower than the rail on the inside of the curve. The low outside rail allowed the long wheel base bogie of the 40 class to derail. I packed up the outer rail until the rails were level as measured by the spirit level. With the rail heads level my 40 class reliably negotiated the point work at any reasonable speed.

The only wagons causing problems at Rod's Reach were four wheeled coal wagons. One particular track joint on the crossing loop was the source of the problem. The track joint in question was right over a joint in the sub road bed. With time this rail joint had opened slightly. This oversight in construction had not caused problems until now. The joint in the track was eliminated by replacing the two installed lengths of flexible track with a single length of flexible track. Once the single length of track was installed trains of four wheeled wagons operat-

ed reliably through the crossing loop at Rod's Reach.

With these problems addressed Wombat Gully operations returned to what passes for normal on that layout.



## Division 1. Happenings July 2018

For the July meeting, Division 1 members travelled to the western suburbs to Duncan Cabassi's, the home of the UPBNSF Joint Division. Approximately 20 made the trip with members coming from the Gold Coast, Sunshine Coast and Kingaroy.



On arrival Duncan gave us a quick overview of this N scale Layout, a portion of the UP & BNSF lines between Portland, Oregon (OR) to points East of Spokane, Washington (WA). Allowing for Modelers' ers signing up. license and com-400 Kilometres (250 miles) of railroad into a much smaller area, and theoreti-BNSF having creased traffic flow in the area, over-

flow traffic from the BNSF is being routed via the underutilized UP line (The Old Washey). The UP/BNSF Joint Division is a representation of this theoretical outcome.

The Layout: This is a large modern double deck layout located across two large garages. It has some interesting engineering design applications including a branch line that swings out of the way to allow for vehicle access when not in use. The layout is designed for operations. Duncan holds bi-monthly operations sessions with an operating crew that consistently has about 14 - 18 people. The operations paperwork is generated from the JMRI Operations application and an additional Excel program that enhances the paperwork output including images of rolling stock. It is not uncommon to run 25 + trains in a four hour session with some trains taking 2 hours to complete their designated runs. All up the main line is over 250 metres long.

**Operational authenticity:** Some authenticity of the design has been achieved by using town names in a sequence that is located along the prototype line. Further, he has done field re-

search and taken some time to represent key prototype industries at various locations on the line. The actual buildings on the layout may not look like the buildings in real life but signs and goods and services that the industries provide, offer some realism and authenticity to the operation. This equates to the flavour of the area as much as anything.



**Meeting:** By this time the Divisional Super arrived (traffic delays) and gave a rundown on the June ARC meeting. Order for track gauges was taken and the Convention Chairman gave an overview of the activities planned for the Regional Convention, resulting in six cash customers signing up.

pression of some Show and Tell followed and some discussion on Divisional activities coming up. A "bring and 400 Kilometres (250 buy" table was available along with a "give away" box.

area, and theoretically due to the Static grass applicator made from a electric bug zapper, his wheel cleaning tool using toilet BNSF having in-paper, and how he added super elevation to his curves using copper wire.

Following a BBQ lunch it was time for some operations. The group was split up into three and placed with an experienced (regular) operator. Our group was given jobs to do; a driver, I scored the conductor job with the paper work and a switchman to set up the required tracks. All up we had a most enjoyable time switching, cutting out selective cars from the exchange siding and drop them off and picking up other cars at local industries.

Thanks Duncan, great tips and a most enjoyable visit.

Arthur Hayes MMR.

Duncan's layout is featured on the Convention Layout Tours and a number of operations sessions are also available on the layout during the convention.



## Division Two Highlights

The May meeting was held at the home of Matt Semenas in Long Beach, NSW with nine Div 2 members and Div 7 member Lyndon Spence attending. Stephe also presented John Gillies with his 25 years NMRA AR membership award - well done, John!

Show and Tell was very interesting - see separate report and the photos supplied by John Gillies (many thanks!).

Host, Matt Semenas, models western Canada in Alberta and British Columbia in HO scale in the larger half of a well-finished two car garage layout room. Matt developed the initial layout concept and design with Ian Barnes doing the detailed layout design, engineering, and providing some construction guidance. Matt constructed the benchwork and laid the track in two months - an amazing feat that puts some of *The Flimsy's* readers to shame.

Matt's carpentry skills are very good and the quality of his work is first class. Ian advised that Matt knows how to properly use all of the many woodworking and other tools in his workshop. Matt has a workshop, all manner of tools, and plenty of storage space built under the layout - everything looks neatly organised and in the right place! Matt has built some very clever roll-around layout sections to enable his wife's car to be parked in the garage when the layout is not in use. The two removable sections near the roll-up garage door are very well designed and engineered, as are the lift out track sections near the entrance to the layout room.

The layout is point to point with a two times around the room design with two helices connecting the double decks. A connection track enables continuous running if required.

There are two connected segments of track representing the *Canadian National* main line from Fort McMurray in Alberta (oil production), through Red Deer (oil refining) and on to Calgary where the line interchanges/joins the *Canadian Pacific* mainline and crosses the Rocky Mountains from Banff (Alberta) to Revelstoke, British Columbia.

Matt operates CP and CN freight trains as well as regular *Via Rail Canada* passenger service. *Rocky Mountaineer*, *Whistler Mountaineer* and *Alaska Railroad* tourist train services operate also. *Union Pacific* has trackage rights for the UP business train hauled by a *Big Boy*. Some earlier era steam trains also have operating rights. The layout uses *MRC Prodigy* wireless DCC. Matt still has some wiring and fitting to do of



DCC controlled *Snail* turnout motors by *Circuitron*. The layout features a number of bridges of various designs on the Rocky Mountain crossing and a helix that emulates CP's famous spiral tunnel. The layout uses two *Walthers* turntables. The layout control panels are superb.

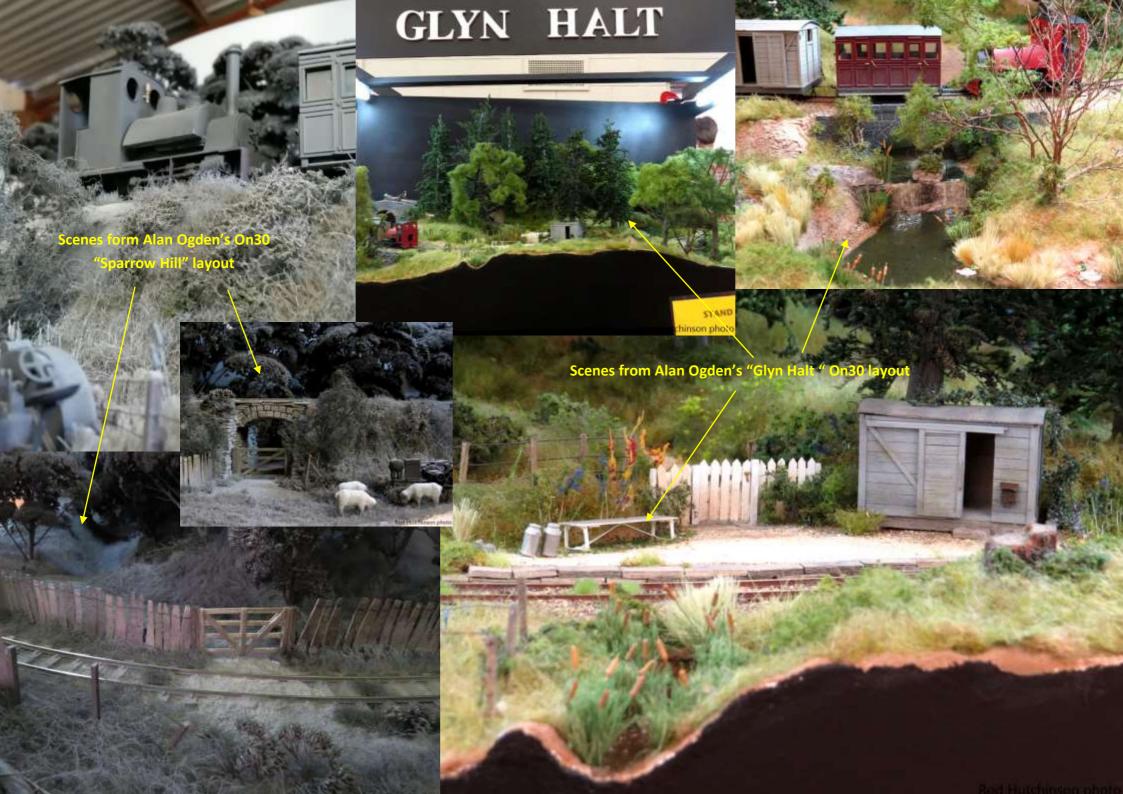
Matt has used a number of continuous print backdrops from *Backdrop Warehouse*, but advised it will be some time before he starts scenery work as he has other more important operational tasks to do first. He also gave a demonstration of his Rocky Mountains storm lighting and sound effects

Some of Matt's visitors spent a very enjoyable hour or more operating trains over the layout after Matt's briefing. This was followed by a very enjoyable afternoon tea and refreshments with a magnificent 180 degree view of Batemans Bay, the Clyde River and surrounding hills.

Thank you to Matt and Mary for making us all so welcome and for a very enjoyable meeting.

Thanks to John Gillies for the meeting report as "dear editor" was overseas at the time of this meeting.





## Division Three Highlights

The June meeting as held at Seaholme, a suburb south-west of Melbourne located on Port Phillip Bay. Around 18 people ventured out on a cold day from as far afield as Ballarat, Sunbury and Mooroolbark. Our host Allan and Ruth Ogden are the owners of three O-16.5 layouts with Welsh themes. One home layout and two exhibition layouts, "Glyn Halt" & "Sparrow Hill". Sparrow Hill was described in the January 2018 (issue 69) of Narrow Gauge Downunder magazine.

Allan Ogden's two 1/43 (O-16.5) Display layouts were popular on this cold day

Excellent modelling was on display which included

Bob Thorntob – 16mm Diesel and V tipper

Dave Bamford – Walnuts painted as boulders

Grant McAdam - Clestory Mould and roof

Paul Ritchie - 1/64 Diorama

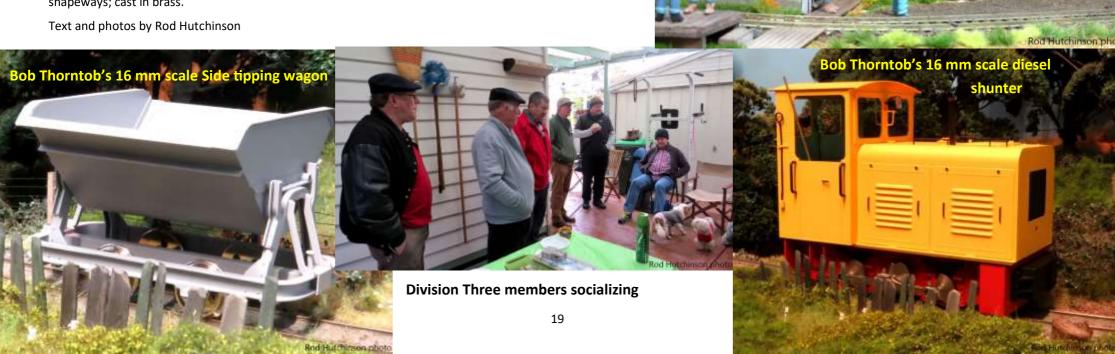
Peter Macdonald – 1/48 semi flat Store

Richard Grinyer – 1/24 Dilapidated Building

Rod Hutchinson -1/43 Unfinished scratch built brass rail tractors.

Rod Hutchinson -1/43 Buffer Plates drawn in 3D CAD; printed by shapeways; cast in brass.





#### A more detailed view of Richard Grinyer's burnt out building

The July meeting was held at the home of the editor of Narrow Gauge Downunder Magazine, Gavin & Louise Hince. Gavin is the owner of a magnificent Colorado On3 layout. Being close to Melbourne, the venue is quite central to the membership. Attendees came from Mooroolbark in the east, Skipton & Ballarat to the west, Geelong in the southwest and Mornington Peninsula to the south. Around 17 members and guests faced a cool though sunny day, however much was spent in the warmth of the indoors. A genuine welcome was afforded to Laurie Green who has been unwell for some time and attended this meeting after a long absence.

Gavin Hince's On3 Colorado layout was a popular venue on this cold day.

One of the finest items for display is Richard Grinyer's burnt out building. A scratch built structure which was literally bunt with small gas torch. A most remarkable model.

Items for display:

Bob Thornton - 16mm scale Steam Loco

Grant McAdam – Components as casting moulds

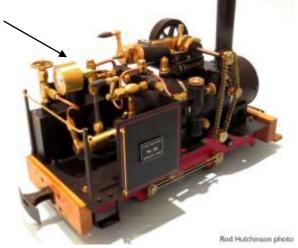
Paul Ritchie - 1/64 Brass loco and tender

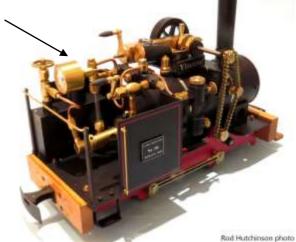
Peter Kendall – 1/50 Model Trawler

Richard Grinyer – 1/24 Burnt out building

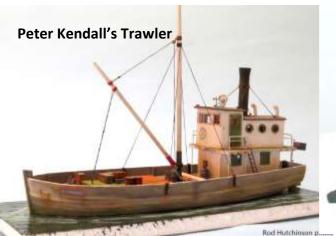
Rod Hutchinson – 1/43 scale scratch built TACL rail tractors

Rod Hutchinson – 1/43 TACL Builders Plates drawn in 3D CAD; printed by shapeways











## 2018 August

The August Division Three meeting was held at Highton, a suburb of Geelong located SW of Melbourne. Geelong is quite central to Div 3 membership and around 15 people ventured out on another cold & wet day from as far afield as Skipton, Ballarat, Warrnambool and Mooroolbark. Our hosts Dan and Carolyn Pickard opened up the indoors to allow some protection from the elements. Dan has produced many dioramas for public viewing with a particular emphasis on the high rainfall "Mountain Ash" eucalyptus forests of Victoria.

Rod Hutchinson demonstrated Radio Control using two rail tractors. The TACL was scratch built and the Malcolm Moore was professionally built by Bernard Snoodyk.

Small, though excellent, modelling was on display which included

All O scale 1:43.5 or 1:48

Dan Pickard - Diorama "Diggers Bend"

John Droste - Right O Way track parts

Rod Hutchinson – Completed TACL rail tractor

Rod Hutchinson – Completed Malcolm Moore Rail Tractor

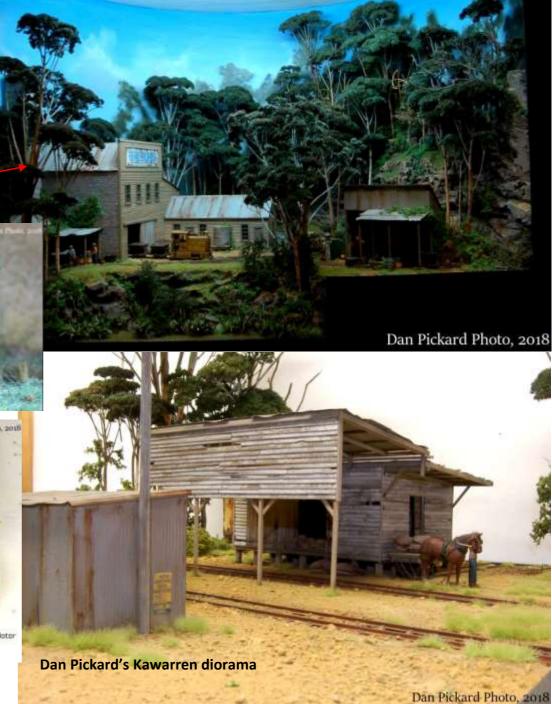
Text and photos by Rod Hutchinson



John Droste's Right O Way
Track parts

Under the bonnet of Rod Hutchinson's Malcolm More rail tractor





DIGGERS BENI



## Division Four Highlights

Division Four's July meeting was held at our Superintendent's home in the wilds of Perth's Northern suburbs. This luckily turned out to be one of the few sunny weekend afternoons is this rather wet July. We were able to meet outside and enjoy what sunshine there was.

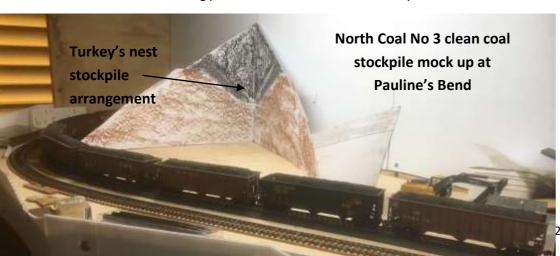
We welcomed Keith Kramer an NMRA member from Florida to our meeting.

Members were advised the early bird reservation rate for the Region Convention in September on the Gold Coast this year closed at the end of July.

A formal moment of silence was held for the passing of Wombat Gully, Rod's layout in the walking wardrobe.

Following the formal part of the meeting we adjourned to Rod's train room to try out his new traffic control system. The system consists of train number tags on lanyards to identify your train, a physical staff for each single track staff section and a magnetic train position board with magnetic train number markers to allow the traffic controller to keep track of train locations. Our efforts showed the system needs some refining and additional signage on the layout.

As Rod's new layout "Wombat Gully-Two" is set in New South Wales coal country, coal trains will be a feature of the layout. He is building a coal train loader at one of the stations on his layout. The clean coal stockpile, conveyors and coal train loader are being laid out in accordance with materials handling practice of the late twentieth century.



# A modellers guide to bulk materials handling

The angle of repose is the slope of a pile of the material formed with a stacker or front end loader.

The maximum conveying angle is the steepest troughed belt angle the material can be conveyed up

The typical storage type is the most common method used to store the material in Australia.

The typical reclaiming methods are the most commonly used methods in Australian industry.

Material	Angle of repose	Maximum Conveying angle	Typical Storage	Typical reclaiming methods
Alumina	22	12	Enclosed silo	Aeration and Gravity
Bauxite	31	17	Open stock pile	Reclaimer
Coal	35	15	Open stock pile	Gravity/Reclaimer
Cement	33	20	Enclosed silo	Aeration and Gravity
Gravel	35	15	Open stock pile	Gravity/Reclaimer
Iron ore	35	15	Open stock pile	Gravity/Reclaimer
Limestone	40	16	Open stock pile	Gravity/Reclaimer
Sand	35	15	Open stock pile	Gravity/Reclaimer
Salt	25	18	Open stock pile	Dozer into reclaim hopper
Super Phosph	nate 45	18	Enclosed stockpile	Reclaimer or Front end loader
Sulphur	35	22	Open stockpile	Front end loader
Wheat	25	12	Enclosed silo or Covered stockpile	Gravity or front end loader
Wood chips	45	25	Open stockpile	Dozer into reclaim hopper

Rod Tonkin MIEaust CPEng (Ret)

#### Division 6 Chronicles.

Our July meeting was hosted by Ron Solly at his home at Evanston Gardens. He has an English DCC layout named Devan and Summersett. We had a good crowd of 22 members which was excellent. Bring and Brag was commenced by Vern Cracknell doing a 40 min. presentation on scenery and how an artist views it. Scott Taylor had a new book called Peninsular Pioneer based on Eyre Peninsular railways and his new project an SAR ore wagon in G gauge which he is building. Michael Robinson bought along his new little Mobius camera to show the members. Once the general business was out of the way we got down to checking out Ron's layout and of course afternoon tea.

Our August meeting was held at the Adelaide Model Railroader's club rooms which are located in the Outer Harbour Railway station. The local trains are still using the platform so some of our members arrived by train. Ken House and John Prattis were our hosts with some of the AMR members assisting them. Bring and Brag involved Ken showing us his 830 engines with DCC sound and how he has made the loads he uses. Casey Tonkin showed us her new N gauge Union Pacific 4-8-4 steam engine and we all wished her a Happy 26th Birthday. John Prattis showed us his new book called "Make it run like a dream" by Joe Fugate. Michael Robinson ran his Small Mobius camera on the club's very large layout and was very pleased with the results. We all enjoyed an afternoon tea of scones, jam and cream and a dip before checking out the layout and socializing before heading home. There were 19 members present which was great as it was a bitter day weather wise.

Regards

Jane Robinson
Division 6 Superintendent





## Prototype Observations

Passenger services to Mt Isa in the 1980s consisted of the twice weekly air conditioned "Inlander" and "Goods trains with passenger accommodation".

The "Inlander" usually included a couple of priority freight cars attached behind the locomotive. These were spotted inside the goods shed on arrival at Mt Isa for unloading.

The rather Spartan passenger accommodation on a goods train with passenger accommodation was usually a coach attached behind the goods train's brake van.

Photos and text by the editor









"Inlander" headed by a 1460 class heading for Mt Isa station with the smelter stacks and the Urquart shaft head frame in the background

