

# MainLine



**The Journal of NMRA**

**Australasian Region**

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# NMRA Australasian Region Directory

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**Alan Burrough**

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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@inet.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**

### **Autumn**

**Content submissions**

**15 March 2016**

**Publish date on web**

**30 March 2016**

### **Winter**

**Content submissions**

**15 June 2016**

**Publish date on web**

**30 June 2016**

## **Cover photo**

A scene on David Latham MMR's HO Scale Fanta Se Sella Sub Division from the layout galleries page of our web site [nmra.org.au](http://nmra.org.au)

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- Presidents Thoughts
- Editorial musings
- Divisional round up
- Convention news
- Achievement program awards.
- Australasian Region directory
- Coming events
- Prototype observations

## From the President's Desk

Welcome to this edition of the electronic MainLine. As you read this MainLine, your Committee is preparing for our biennial election of Office Bearers and voting for a number of special resolutions that are required to update our Rules of Association to reflect current practices. Both the election of Office Bearers and the voting on the Special Resolutions will need to be completed so the outcomes can be announced at our Annual General Meeting on 19 March 2016.

I encourage you to exercise your democratic rights by reading up and voting in the elections and on the Special Resolutions.

2016 is nearly here. In 2016 we will have a "mini" convention in the Sydney area while in 2017, Division 6 in Adelaide will host a regular Convention so start planning for a trip to Adelaide in two years' time. Planning for the 2016 mini-convention is progressing well.

Our Achievement Program Regional Manager, Gerry Hopkins, advises that we now have another two MMRs: David Latham (Div 7) and Vern Cracknell (Div 6). Congratulations to these two gentlemen for reaching the pinnacle of railway modelling. Also, congratulations to those who have achieved individual Achievement Program Awards over the last three months.

With Christmas and the summer holidays upon us soon, I hope that Santa Claus is kind to you and that you get a lot of modelling achieved during your summer break.

Merry Christmas and I hope you have a great year in 2016.

Enjoy your modelling.

David O'Hearn

AR President

1 December 2015

## Editors note

Well here we are, another year almost over and the final issue of MainLine for Volume 32. I'd like to thank you the region committee, division superintendents and individual members of Australasian Region for your support in providing copy and comment for MainLine. Without your help it would be a rather barren publication.

May the blessings of the Christmas season be with you.

Looking forward to 2016

Regards

Rod Tonkin Editor MainLine



# AUSTRALASIAN REGION

## PROPOSED CHANGES TO THE RULES OF ASSOCIATION (SPECIAL RESOLUTION)

In previous AGMs (2014/15) Association members approved changes to the Rules of Association (RoA) that enabled notifications by multiple forms of media and introduced electronic voting (when it becomes feasible). Following a review this past year, the NSW Dept. Fair Trading is expected to legislate to allow electronic voting by Associations in 2016.

But the current RoA still does not accommodate a geographically diverse membership such as ours. The changes the ARC is recommending for our RoA this year addresses our geographically diverse membership by eliminating voting at AGMs and general meetings by a show of hands. Instead, it gives all members an equal opportunity to vote. These proposed changes also reflect the ARC approval to remove the requirement for SIGs and 100% Clubs to report on their financials. This also needs to be ratified by the membership.

Members will be asked to vote on the following recommended changes at the end of January. All members will be served with voting forms by email or post and voting will close in the week beginning 28 February with results announced at the AGM and in the Autumn Main-Line. We urge all members to vote on these important changes.

### 4.7 Making Decisions

A motion arising at a general meeting of the Association shall be determined on a show of hands and, unless before or on the declaration of the show of hands a poll is demanded, a declaration by the chairperson that a resolution has, on a show of hands, been carried or carried unanimously or carried by a particular majority or lost, or an entry to that effect in the minute book of the Association, is evidence of the fact without proof of the number or proportion of the votes recorded in favour of or against that resolution.by a poll of the entire membership with votes returned by post as in clause 4.11.1.

***Rationale** – Because our Association is geographically diverse, a show of hands at a general meeting of the Regional Association does not represent the membership but just a small percentage of members local to the meeting. Therefore a poll must be held for any motions raised.*

### 4.8 Special Resolutions

4.8.1 A resolution of the Association is a special resolution if it is passed by a majority which comprises not less than three-quarters of such members of the Association as, being entitled under these rules to do so, actually vote in person or by proxy at a general meeting of which not less than twenty-one day's written notice specifying the intention to propose the resolution as a special resolution was given in accordance with these rules.

A special resolution of the Association shall be determined by a postal ballot of eligible members of the Association and be deemed to have been approved if 75% of the votes cast are in favour of the resolution. Proxy votes and votes by show of hands on the day of the meeting will not be accepted.

***Rationale** – This clause has been changed to eliminate proxy voting and voting in person as the ARC has moved to only vote by return post. Note the need for a 75% approval by those members who actually vote.*

### 4.9 Voting At Meetings

4.9.2 All votes shall be given personally or by proxy but no member may hold more than one proxy.

4.9.3 A member or proxy is not entitled to vote at a general meeting of the Association unless all money due and payable by the member or proxy to the Association has been paid, they are a member of the NMRA in good standing and 18 years of age or older.

### 4.10 Appointment of Proxies

4.10.1 Each member shall be entitled to appoint another member as proxy by notice given to the Secretary no later than twenty-four hours before the time of the meeting in respect of which the proxy is appointed. Not Used.

***Rationale** – Proxy voting (which has never been used) and voting by a show of hands is eliminated as per 4.8.*

#### Editors Note

- Type in underlined red is proposed to be deleted from our Rules of Association

## 5.4 Special Interest Groups

5.4.2 The SIG members shall elect a SIG Coordinator who is responsible to the ARC for the affairs of the SIG. Each SIG shall report to the ARC at least annually providing details of all past and future planned meetings and a statement of accounts. SIGs shall also keep and submit to the ARC records of attendance at meetings.

***Rationale** – As per a recent agreement at the March 2015 ARC meeting, SIGs are no longer required to report their financial dealings to the ARC for funds they have raised themselves.*

## 5.5 100% Member Clubs

5.5.2 Each 100% Club shall report to the ARC at least annually providing details of, membership lists, all past and future planned meetings and a statement of accounts. 100% Clubs shall also keep and submit on request, to the ARC records of attendance at meetings.

***Rationale** – As per a recent agreement at the March 2015 ARC meeting, 100% Clubs are no longer required to report their financial dealings to the ARC for funds they have raised themselves.*

End of proposed changes

## Editors Note

**Type in underlined red is proposed to be deleted from our Rules of Association.**

## Bragging rights?

Rod Tonkin

In 1988 at BHP Iron Ore we were rather chuffed to pass the 500 million ton production mark. We moved our iron ore to Port Hedland on a 32.5 tonne axle load standard

gauge railway. Each ore car weighted 24 tonnes empty and carried around 105 tonnes of ore. Our 180 car trains carrying roughly 19,000 tonnes of ore were entrusted to three C636 or M636 locomotives tipping the scales at around 195 tonnes apiece with a rear end C636 or M636 helper attached for the climb over the Chichester range.

It came as a surprise to find CVRD (Cia Vale Do Rio Doce) in

Brazil had reached the 1,000 million ton production mark in 1983. Their feat was all the more impressive considering they moved their iron ore over their metre gauge railway system EFVM (Estrada de Ferro Vitoria a Minas) . They marked the event with a specially lettered run of Fratesch models of their ore cars.

CVRD's ore cars (they have over 10,000 of them) weigh 16 tonnes empty and carry 75 tonnes of ore.

The main line power on EFVM in those days was a fleet of 83 EMD DDM45. The DDM45 was an SD45 riding on two eight wheeled bogies tipping the scales at 162 tonnes. The D-D wheel arrangement gave the locomotives an axle load of around twenty tonnes.

Details and numbers of CVRD's DDM45s are listed on the following web site.  
[1http://en.wikipedia.org/wiki/EMD\\_DDM45](http://en.wikipedia.org/wiki/EMD_DDM45)



Vinicus  
DDM45

Secchin's photo of  
861



# Nominations for election of Office Bearers Of the Australasian Region of the NMRA for 2016 – 2018

Nominations are hereby called for the following Office Bearers and members of the Committee of the Association.

<b>President</b>	<b>Vice President</b>
<b>Treasurer</b>	<b>Secretary</b>
<b>Three (3) Member Representatives</b>	<b>Division Superintendents</b>

Term of Office: From the close of the 2016 AGM through to the close of the 2018 AGM.

All Nominations must be on the form over (or a photocopy) and must be signed by the nominator, seconder and candidate. All six of these persons must be current financial members of the Australasian Region of the NMRA and the candidate may only be nominated for one of the committee positions. Superintendent nominations, if any, will be passed to individual divisions for local ballots.

If a ballot is required then each candidate on the ballot may be required to submit the following Candidate Personal Information for circulation with the ballot form.

A personal platform statement of no more than 250 words (which will be provided with the ballot papers to all members, should a ballot be necessary)

A photograph of the candidate

## Closing Date for Nominations, 09 January 2016

Nominations must be post marked no later than the above date.

**Nominations must be sent by the closing date to:\**  
**Secretary NMRA Australasian Region**  
**164 Buff Point Rd.**  
**Buff Point NSW 2262**

Or by scanning the completed form and emailing it to [secretary@nmra.org.au](mailto:secretary@nmra.org.au)

**Nomination for Committee of Australasian Region**

I wish to nominate the following member of the National Model Railroad Association for the position of:  
 .....

Candidate Name:.....

Membership Number:.....

Address.....  
 .....

Nominator's Name:.....

Membership Number:.....

Nominator's Signature:.....Date:.....

Secunder's Name:.....

Membership Number:.....

Secunder's Signature:.....Date:.....

Declaration by Candidate:

I, the above-mentioned candidate, agree to be nominated for the above position and understand the role, expectations and responsibilities of the position.

Signature:.....Date:.....

# Australasian Region 2015 Convention

Gerry Hopkins MMR receiving  
his Fellow of the NMRA award  
from Pacific Regional Director  
Mike Bartlett



Bob  
Bob Best MMR receiving his MMR  
Certificate from Gerry Hopkins FNMRA



Some of the modelling contest entries

# 2015 Region Convention Contest

## placings

**Rick Shoup Award** Dennis Clarke MMR NSWGR 53 Class (HO)

**John Baker Award** George Paxon MMR Traction Sub Station (O)

### Model Competition

#### Steam Locomotives

1<sup>st</sup> Dennis Clarke MMR NSWGR 53 Class (HO)

2<sup>nd</sup> David Latham AT & SF 4-8-2 (HO)

3<sup>rd</sup> David Mitchell NSWGR 36 Class (HO)

#### Freight Cars

1<sup>st</sup> George Paxon MMR 1903 Grain Car (O)

2<sup>nd</sup> Warren Herbert NSWGR 4 Wheel Powder Tank (HO)

#### Traction (Trams)

1<sup>st</sup> George Paxon MMR Rotary Snow Plough (O)

2<sup>nd</sup> George Paxon MMR Container Car (O)

#### Non-Revenue Cars

1<sup>st</sup> John Parker AT & SF Business Car (HO)

2<sup>nd</sup> Chris Lord NSWGR Shunter's Truck (O)

#### Structures On Line

1<sup>st</sup> George Paxon MMR Traction Sub Station (O)

#### Passenger Cars

1<sup>st</sup> Chris Lord NSWGR 12 Wheel Sleeper (O)

2<sup>nd</sup> John Parker AT & SF Baggage Car (HO)

#### Display on line

1<sup>st</sup> Stephen Reynolds NSW PC1 Station (O)

#### Diesel Locomotives

1<sup>st</sup> David Latham AT & SF Dash 8-40 BW (HO)

2<sup>nd</sup> David Latham AT & SF 25 Ton Switcher (HO)

#### Photo Competition

##### Models

1<sup>st</sup> John Parker Smoke and Dust

2<sup>nd</sup> John Parker Travelling in style

3<sup>rd</sup> Ruth Garbutt Charging Moose

##### Prototype (Black and white)

1<sup>st</sup> Ruth Garbutt When steam was king

2<sup>nd</sup> Ruth Garbutt Round the Bend

##### Prototype (Colour)

1<sup>st</sup> Tied Ruth Garbutt Railway art

1<sup>st</sup> Tied John Gillies CN - Savona BC

2<sup>nd</sup> John Gillies UP- Perry Oregon

**Rick Shoup Award Winner  
Dennis Clarke's D53**



**NSW 5487 - Scratchbuilt (HO)**

GHOST TOWN



Ghost Town

# Ghost Town by Mike Flack

Displayed at the 2015 Region Convention



Ghost Town

TORONTO



Toronto by Steve Reynolds



Displayed at the 2015 Region Convention



Toronto Module

# Contest winners



Inside the Traction Power Station



HO Scale ATSF Business car



O Scale NSWGR TAM Sleeper



NSW PC1 Station



Traction Snow Plough (O Scale)



Traction Container Car

# Editorial musings

## A Personal Layout Design Criteria

My layout Martindale Creek was intended to be a model of a section of a modern single track main line railway I could operate in a prototypical manner. The design criteria for “Martindale Creek” was

- Reliable operation of HO scale models of large diesel locomotives
- Reliably operate my existing rolling stock
- Fit into the space available for the layout
- Single track main line
- Trains on the main line only pass through a scene once
- Crossing loops to accommodate trains of two large diesel locomotives hauling eight 50 foot freight cars
- Two visible crossing loops
- Adequate train staging facilities
- Walk around, walk in layout arrangement with hand held plug in throttles
- All track work within easy reach of the layout edges or aisles

These design criteria were set up to guide the design of the layout. A conflict between two design criteria would need assessment as to the most effective solution to that particular challenge. A point to notice is the design criteria makes no mention of model railway standards. Model railway standards come into play as the design develops.

The first two design criteria essentially revolve around the main line minimum curve radius, track spacing and point work geometry. Martindale Creek is a main line operation. To maintain train speed in mountain country you need horse power and adhesion. The HO scale model locomotives governing the original track work geometry were a pair of Southern Pacific 3,000 horse power SD40T-2s. (The SD40T-2 is three feet longer than a standard SD40-2). These locomotives measure a scale 71 feet over the body (in HO Scale they measure 248.5mm overall the body). NMRA’s RP 11 recommends curve radius for different sizes of rolling stock. My SD40T-2 according to NMRA RP11 would require 800 mm radius curves and number six points.

The space available for “Martindale Creek” was 3600 mm by 2700 mm. This layout size may sound modest but it’s what I had. Adopting NMRA’s RP11 minimum curve radius standard

would have restricted the track work on Martindale Creek to little more than an oval and not fulfil most of the remaining layout design criteria.

Some pundits consider if you don’t have the space to use the curve radii recommended by NMRA RP 11 standard you should either build a branch line layout that uses small rolling stock or change over to N gauge. I was neither interested in branch line operations nor given my extensive HO scale roster interested in converting to N gauge. I elected to use an operationally reliable mainline curve radius based on a curve radius the SD40T-2’s could negotiate hauling the size trains I wanted to operate. The prototype (Association of American Railroads) criterion for minimum curve radius is defined as the radius the unit can operate through pushing or pulling a 50 foot boxcar. Trials were carried out using a range of curve radii to test my SD40T-2’s operating through the trial curves to the AAR requirement.

The test curve radius and point work systems were; 435 mm radius set track, 457 mm radius set track, 504 mm radius set track and 600 mm radius flexible track. The Peco/Hornby 435 mm radius curves were nonstarters, the tunnel motors wouldn’t negotiate them. The Life-Like 457 mm radius curves and points were reasonably reliable. The Peco/Hornby 504 mm radius curves and Peco “Streamline” point work gave very reliable operation with the SD40T-2’s. The 600 mm radius curves worked beautifully. Alas 600 mm radius curves didn’t allow me to design a layout fulfilling all the design criteria. The 504 mm radius curves were selected as the minimum main line radius. As it turns out the chosen curve radius gave a locomotive body length to curve radius of about 2.0. The overhang of the end steps of the SD40T-2’s while negotiating these curves may offend some modellers but I can live with it.

The result of my musings in the mid 1990’s has been an enjoyable model railway operating scale models detailed to replicate actual prototype rolling stock in a prototypical manner.

Your comments appreciated.

Rod Tonkin



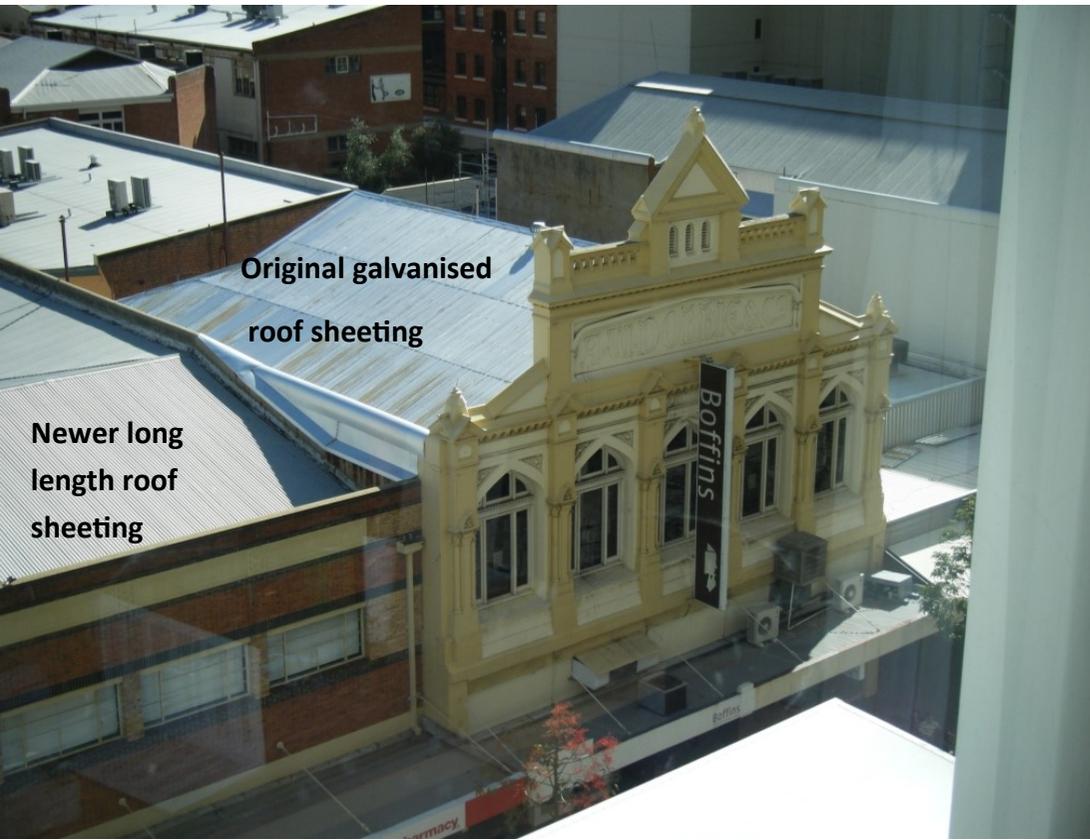
## Roof Details

Rod Tonkin

Many of us view our layouts from above. The attached photos show some inner city roofs of varying ages with a variety of fittings. Replicating these details can enhance the look of your layouts built up area scenes.

While it hasn't been available for thirty years many buildings still have corrugated asbestos roofs. The six inch corrugation pitch as well as the colour makes an interesting visual change from corrugated iron roof sheeting.

Corrugated iron roof sheeting has been available in long lengths for over forty years. A roof sheeted in individual sheets of iron is probably fifty years or more old. Many old buildings have been re roofed with long length roof sheeting. The age of the building does not necessarily determine the type of roof sheet it will have. Many old buildings sheeted with corrugated asbestos or individual sheets of iron have been re sheeted with long length metal sheeting.



In addition to the roof sheeting material are the fittings mounted on the roof. Depending on the purpose of a building its roof will sport a variety of

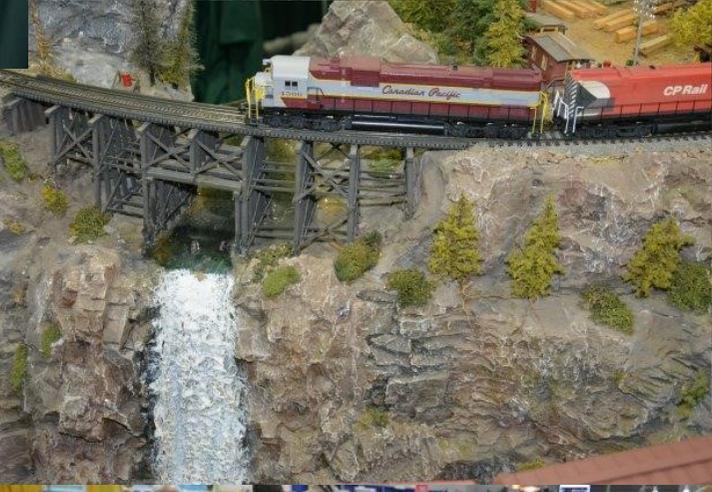
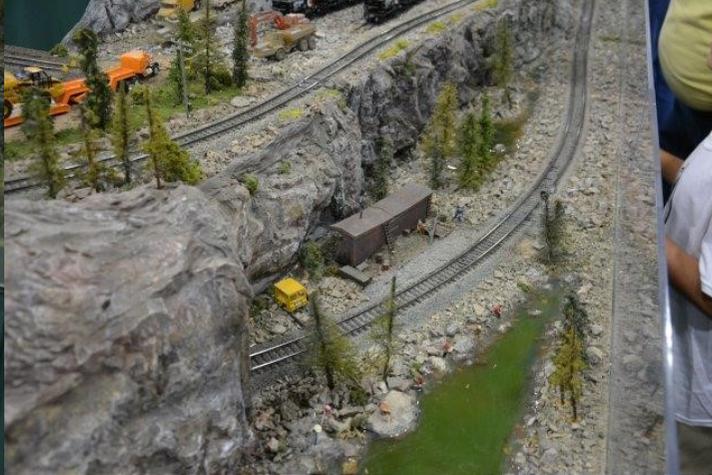
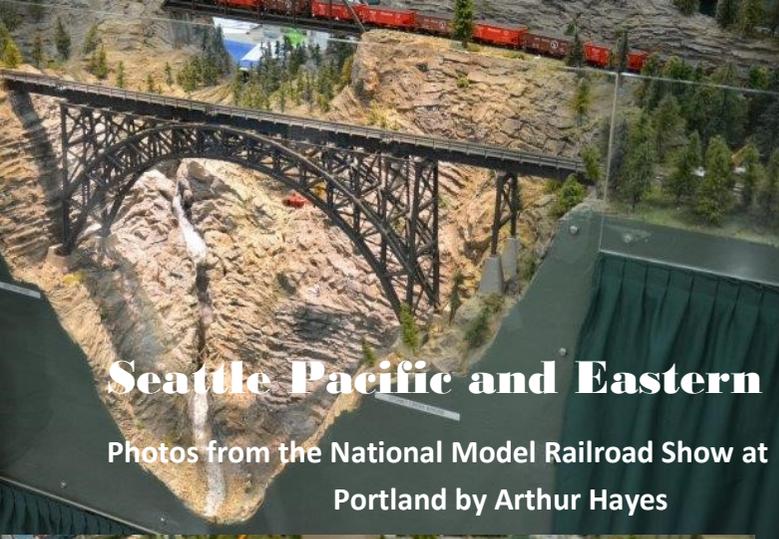
- TV and or radio antennae
- Ventilators
- Skylights
- Air conditioners
- Cooling towers

Adding these fittings to your model buildings adds character and realism to your models.



# Seattle Pacific and Eastern

Photos from the National Model Railroad Show at Portland by Arthur Hayes



# First steps in dead rail operation

Rod Tonkin

I've always wanted to try outdoors railway modelling. Minor detail- I don't have space for G gauge. This lack of space meant using a narrower gauge. I've read many articles in the British model railway press on successful outdoors 16.5 mm gauge layouts, so I thought I'd give it a try. To me track cleaning on a 16.5 mm gauge outdoors operation would be a challenge.

Clean track is essential for model locomotives (especially DCC equipped models) to operate reliably. This seemed a tall order to me. Was there a better way? Could I use battery power? Powering the model locomotives with on board batteries would eliminate the need for clean track.

Would radio controlled battery powered model locomotives be practical in 16.5 mm gauge? There are reasonably current articles in the model railway press on battery powered radio controlled HO scale locomotives. Most of the dead rail systems described involve a solid cash investment. I was looking for something simpler and less costly as a first step into this emerging facet of model railway operation.

As a first step I purchased a radio controlled toy pickup from a chain store for less than the price of a basic four function DCC decoder. The system I purchased comprised the control transmitter and the toy pickup. The control transmitter powered by a nine volt dry cell battery controls the travel direction (forward and reverse without speed control) and steering of the model pickup. The pickup is powered by three AA size dry cells. Inserting the batteries and switching on the transmitter and pickup I gave it a try, the system worked well. The 40MHz radio frequency my toy truck uses so far hasn't set off my neighbours alarm system or immobilised their car so it seems socially acceptable for home use.

Could I adapt this unit to power and control a 16.5 mm gauge model locomotive? I had a candidate for my dead rail trial in mind, a Lima built OO scale model of BR 40 class diesel D200/40122. The brass wheels on this model did not give reliable operation. Would the model work more reliably with on board power? Throwing caution to the wind I connected the drive output wires of my pickup to the motor of my Lima BR 40 class. The system ran the model locomotive drive train smoothly.

All I had to do now was fit the receiver circuit board and the three AA batteries inside the capricious body shell of the Lima 40 class. The problem was the three AA sized dry cell batteries. The battery holder in the model pickup would not fit into the body of the 40 class.



I tried two AA dry cell batteries but they wouldn't budge the Lima motor. In desperation I tried a nine volt battery. This worked well. (No smoke!) With a little wriggling I installed the receiver circuit board from the pickup, the nine volt battery and the attendant wiring into the 40 class and reinstalled the body shell. On the layout the model sailed along at a sedate speed. This was a considerable improvement on my previous attempts to operate this model on DC track power. I was in business.

The next order of business was what would my now radio controlled BR 40 class diesel haul. Prior to fitting the radio control gear I put my 40 class on the scales; it weighed in at 390 grams. I had to take out the steel block Lima had used as ballast to be able to install the radio circuit board and battery. My radio controlled 40 class without the steel block weighed in at only 200 grams. Trials with the model at this weight showed it easily capable of hauling six BR Mk1 coaches on level track around reasonably sharp curves. I think the traction tyres (much maligned by purists) helped in this regard.

Trials on Martindale Creek showed the radio control system worked reliably when the model was out of sight behind the back drop. The simple radio control transmitter needs the direction button held down to keep the model moving. Let the button go and she stops, in effect a "Dead Mans Pedal."

An early lesson learnt was to disconnect the battery from the locomotive when the model is not operating. Left on overnight the current draw of the radio receiver in the locomotive will drain the battery.

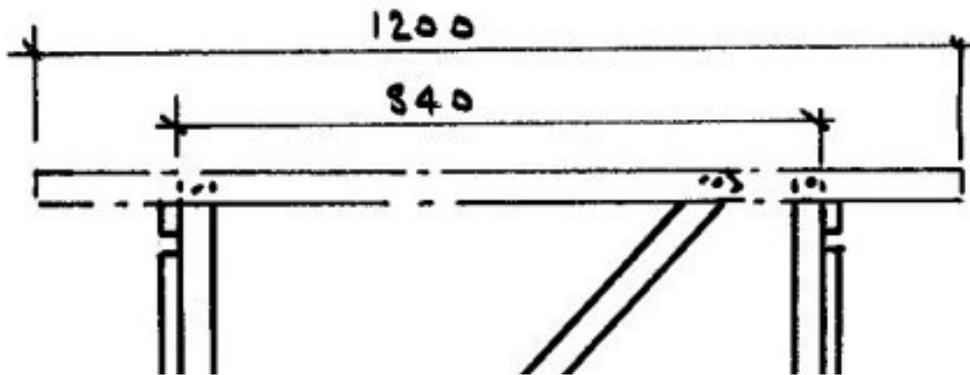
To prove it worked I demonstrated D200/40122 at the August meeting of Division Four as shown in the photo in Vol 32 issue three. It worked flawlessly in front of fellow Division Four members, a promising sign.



## Framing, legs and decking for Leaffield

With the size of "Leaffield" established we can design and build its framing and legs. For transportation purposes "Leaffield" folds up. The two halves of Leaffield's frame are each 1,200 mm long by 600 mm wide.

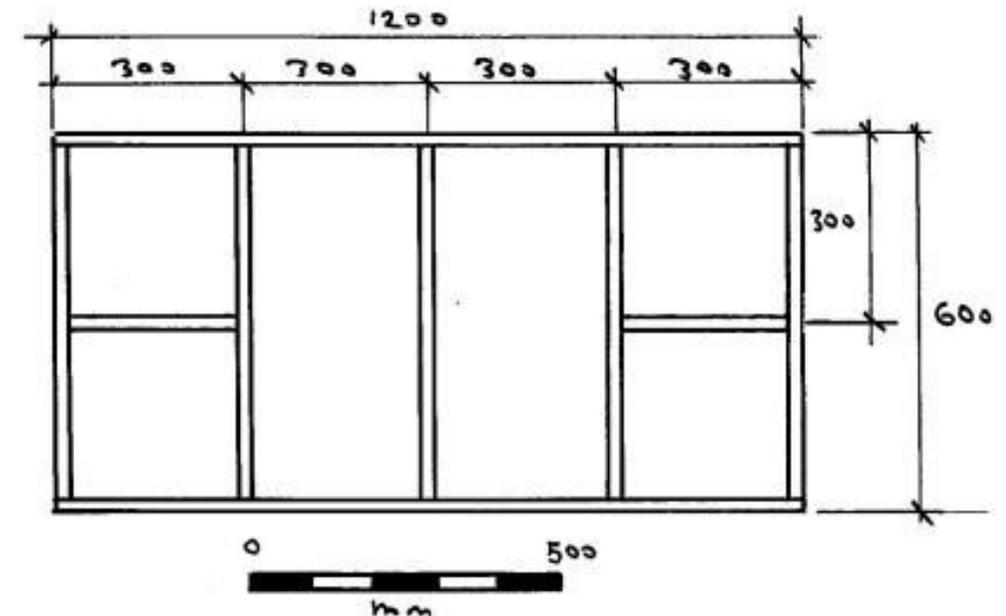
The frame member sizes for "Leaffield" are based on the span to depth ratios discussed in Basic Skills Module Number Four "Layout Framing" with legs located at the corners of the frames the frame side members as recommend by Module Four need to be 68 mm by 19 mm timbers.



By placing the legs of Leaffield 840 mm apart, i.e. 180 mm in from each end of the frames as shown in the attached sketch, the distance between supports equals the maximum span for 42 mm by 19 mm timbers, allowing the frames to be built out of 42 mm by 19 mm timbers. The location of the legs is shown in the attached sketch and photo. This approach while saving a considerable amount of weight in the frame, an important consideration for a portable layout still results in a durable sturdy layout frame.

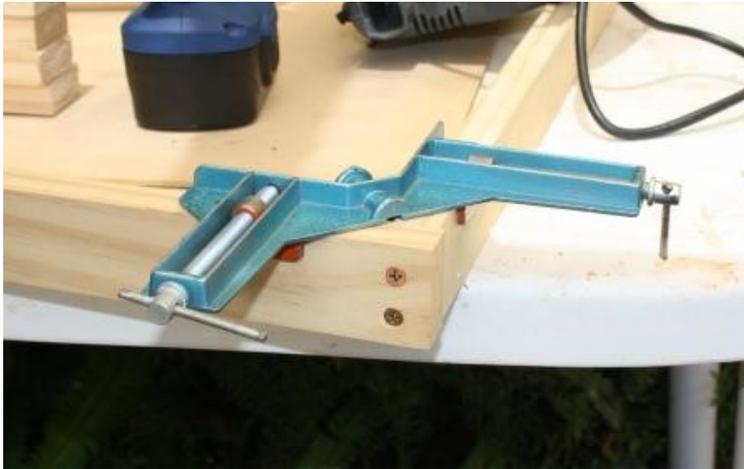
## Layout frames

I'm going to use 12 mm thick chip board for the track support. From Basic Skills Module Number Four "Layout Framing" this track support material requires cross members at 300 mm spacing. Leaffield 1,200 mm long frame panels need three cross members to space the track support sheeting at 300 mm centres. To support the chip board track support at the ends of each frame I'm installing a cross member between the last cross member and the end of the frame panel. This is shown in the attached arrangement of one of the layout frame panels.



Building your frames is straight forward. Start by cutting the longitudinal timbers to length for each frame i.e. 1,200 mm long. The end members and cross members are cut to the width of the frame minus twice the width of the longitudinal members. The short cross members in the end panels were each cut to suit before installation in the assembled frame panel. Holes for the screws near the ends of pieces of timber need to be pre drilled before driving in the screws. This helps to prevent the timber splitting when driving self drilling screws.

I've found a corner clamp like the one pictured, a great help in assembling layout frame panels square and level.



## Legs

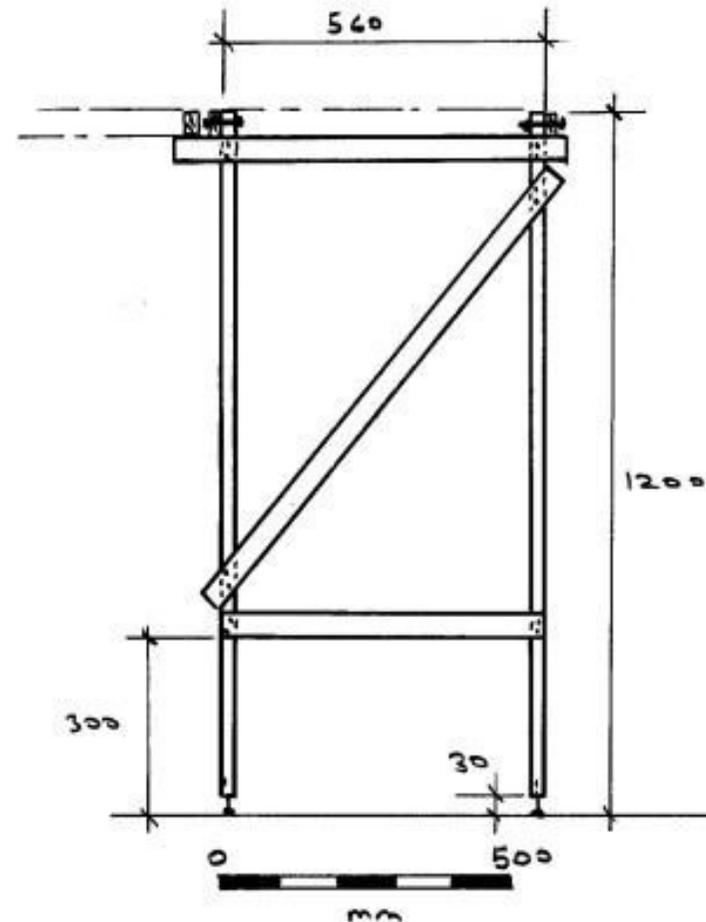
I've built "Leaffield" with legs giving me a rail level 1,200 mm

above the floor. This layout deck height is ideal for an adult's layout as it is easy to work on and gives a superb view of your train in action. The leg design I've used can be modified to give a lower track level height simply by shortening the length of the legs and shortening the bracing to suit the shorter leg length.

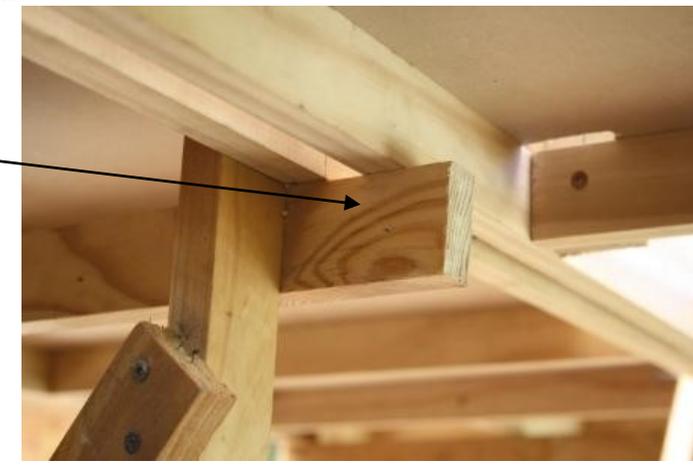
I've designed the legs for "Leaffield" to adequately support the layout and be easy to build and install. One of the two frame assemblies has four legs to support itself. The other frame assembly is supported off the four legged frame assembly on one side and has two legs to support the other side of the frame assembly.

The legs are built as braced pairs. The legs of "Leaffield" are all made of 42 mm by 19 mm radiata pine as recommended in Basic Skills Module Four. The arrangement of each pair of legs is shown in the attached sketch. Each pair of legs has a lower cross member just below the cross brace to hold the legs in place. An upper cross member just above the cross brace holds the legs in alignment and extends under the layout frame longitudinal members. This extended cross member transfers the weight of the layout to the legs. The leg to layout framing attachment bolts merely secure the legs to the layout frame. The legs on the four legged frame are bolted to the side members of the layout frame.

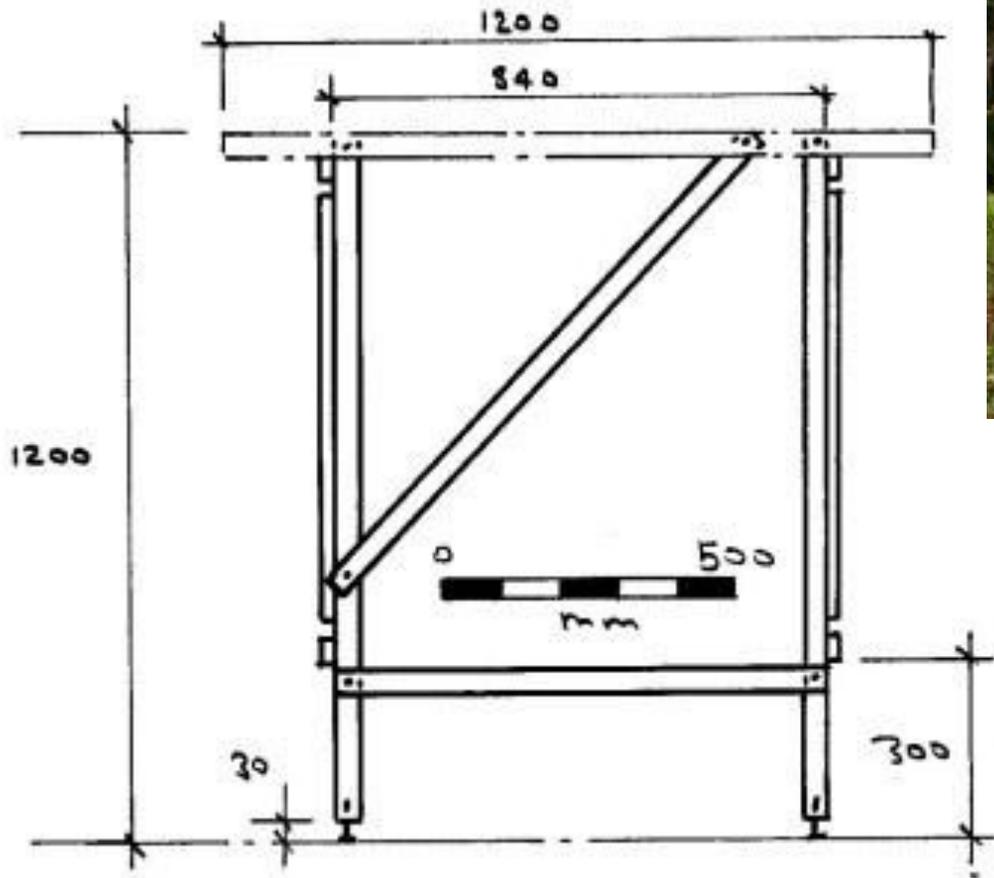
The upper cross members on the four legged frame leg assemblies are extended on one side to support the adjacent frame as shown in the attached sketch and photo.



**Extended leg cross member supporting both frame sections**



One pair of the legs on the four legged frame section is braced longitudinally. This bracing steadies the frame section on its legs. On a layout frame this short its easier to brace the other pair of legs on this frame section off the longitudinally braced pair of legs than fit them with longitudinal bracing. This leg design provides adequate stiffness and is easy to build and assemble. The leg arrangement is shown in the attached sketch and photo.

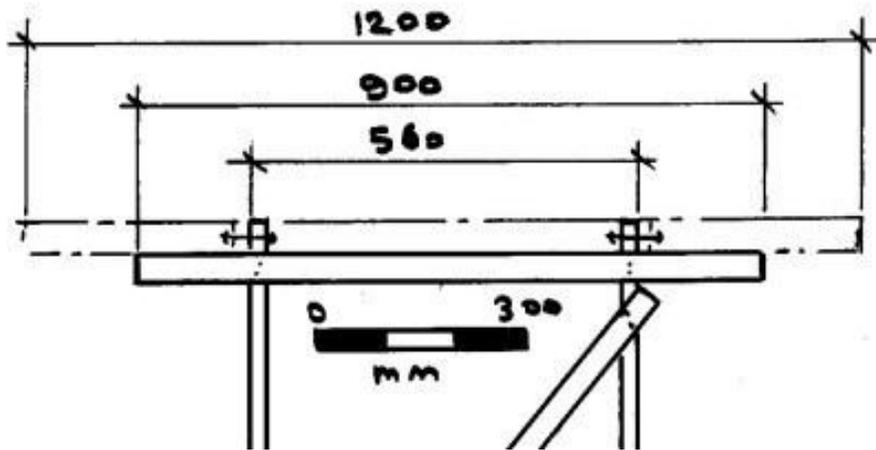


Assembled layout supported on its legs

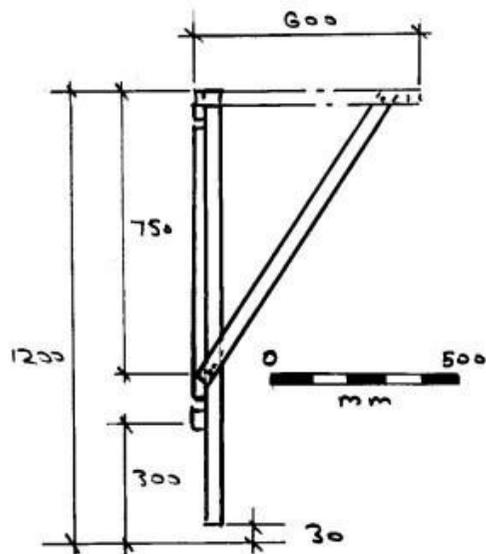


Four leg section of layout showing the combined diagonal and horizontal bracing

The two legged frame section's pair of legs are secured to the frame cross members. This places the legs less than 600 mm apart. To support the frame longitudinal side member at



840 mm centres the upper cross member of this pair of legs has been made 900 mm long as shown in the attached sketch. This cross member takes the weight of this side of the layout section



Two legged frame section legs and bracing

frame, not the leg securing bolts.

This pair of legs is cross braced to steady the layout laterally as shown in the attached sketch and photo.

The bottom of each leg has been drilled to accept a 6 mm coach bolt. The coach bolt allows you to level your layout on uneven floors at home or at exhibitions. A 150 mm square of thin plywood placed beneath each leg as shown in Basic Skills Module Number Four "Layout Framing" allows you to level your layout without marring the floor coverings.



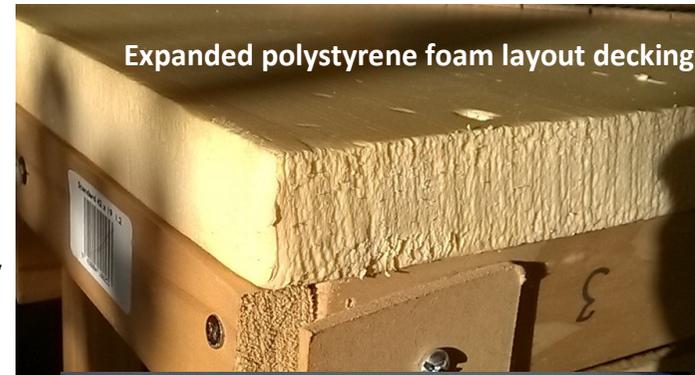
Flooring protection piece

## Decking

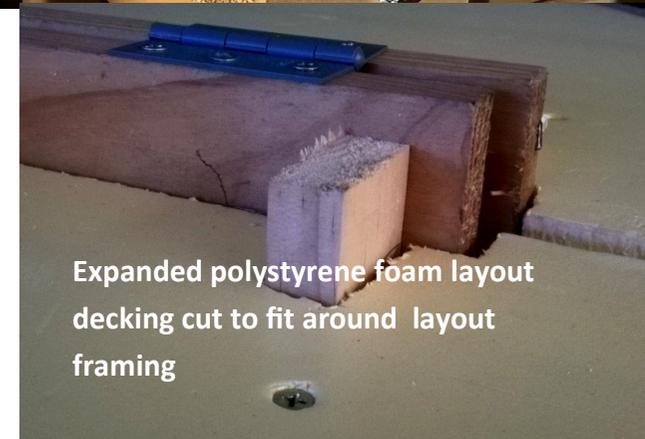
I originally planned to use chip board ribbon roadbed on "Leaffield" Trials showed the full width roadbed looked out of place on such a small layout. In addition to looking out of place the ribbon roadbed was not amenable to changes in track layout. A solid top on your first layout allows you scope to change your mind on your track arrangement without a major exercise in carpentry.

To support the track I've tried expanded foam decking. I've selected 30 mm thick polystyrene insulation foam. The blurb on the label on the sheet states it is an ideal basis for a model railway. This product is readily available from Bunnings. I've secured the foam decking to the layout framing with 8 gauge 50 mm long bugle head self drilling screws.

I cut the foam with a keyhole saw to fit around the layout framing hinge mountings as shown in the attached photo.



Expanded polystyrene foam layout decking



Expanded polystyrene foam layout decking cut to fit around layout framing

## Hinged frame joint

My version of Leaffield folds for transport. Mounting the hinges above the top surface of the layout frame allows for fixed scenery when the folded layout is transported.

The hinges were originally mounted on top of lengths of 68 mm by 19 mm pine



screwed to 42 mm by 19 mm timbers screwed to the frame panel side member and cross members. The hinge mountings leave a gap between the frame panels. This gap allows installation of a back scene or view block at a later stage of construction of the layout.

After exhibiting the partially completed layout at the 2015 Perth Model Train Show it became apparent the hinge mountings were too low to allow reasonable scenery on both halves of the folding layout. I raised the hinge line by 68 mm. the hinge mounting boards are now



secured to the layout framing by lengths of 68 mm by 19 mm pine

## Tribute to Sir Terry Pratchett OBE

Rod Tonkin

Sir Terry Pratchett OBE creator of the “Disc World” novels, the inspiration of my Ank-Morpork and Uberwald model railway died this year from the effects of Alzheimer’s disease. To commemorate his life and works my OO scale model of BR 40141 has been named “Sir Terry Pratchett OBE” and carries his coat of arms. The British Railways 40 class diesel would I feel be at home on the disc world.

I chose my model of split head code box 40141 as it was reasonably clean and as yet unnamed. The name plates for 40141 were built up in Excel using yellow lettering and border on a black background. I used 11 point Calibri Bold type. After some trial and error I printed the name plates 50% full size. This size reduction gave me reasonable sized readable name plates. Sir Terry’s official coat of arms (granted by the Royal College of Heralds) was downloaded from the internet and inserted into an Excel spreadsheet. The size of the image was adjusted until it fitted into an array of cells. A black border around the image provided a cutting out guide after printing.



The name plates and coats of arms were printed using an ink jet printer on 80 grams per square metre paper (photo copier paper). Once the ink was dry the printed name plates and coats of arms were sealed both sides with acrylic matte medium and allowed to cure. The name plates and coats of arms were secured to the model with acrylic matte medium

Ex British Railways “Sir Terry Pratchett OBE” 40141 is now in service on my preserved British railway hauling train loads of railway enthusiasts riding in vacuum braked, steam heated British Railways Mk1 coaches.

# Achievement Program update

Ladies and Gentlemen and others, since my last report I have had the honour of confirming four more MMRs in our Region.

Two of these are the first MMRs in South Australia.

Peter Jackson MMR #563 - Division Six - Adelaide

Bob Best MMR #564 – Division Seven – Blaxland

Rev Dr Vern Cracknell MMR #567 – Division Six– Adelaide

David Latham MMR #568 – Division Seven – Kangaroo Point

Congratulations to all – you can see which AP Certs they received and view their work on the NMRA Web Site <http://www.nmra.org.au/region/MMRs.html>.

A new assistant AP manager has been appointed for Division Seven – Kelly Loyd MMR #482. He will be “leaning on” those of you with 5 or 6 certificates to get your 7<sup>th</sup> and MMR certs.

The web site is currently up to date – only 2 more APs from Div 7 to be added.

<http://www.nmra.org.au/awards/awards.html>

**Gerry Hopkins MMR #177**



**Gerry presenting  
David with his  
MMR Plaque**



**Gerry recently travelled to South Australia to present Peter and Vern with their MMR plaques**

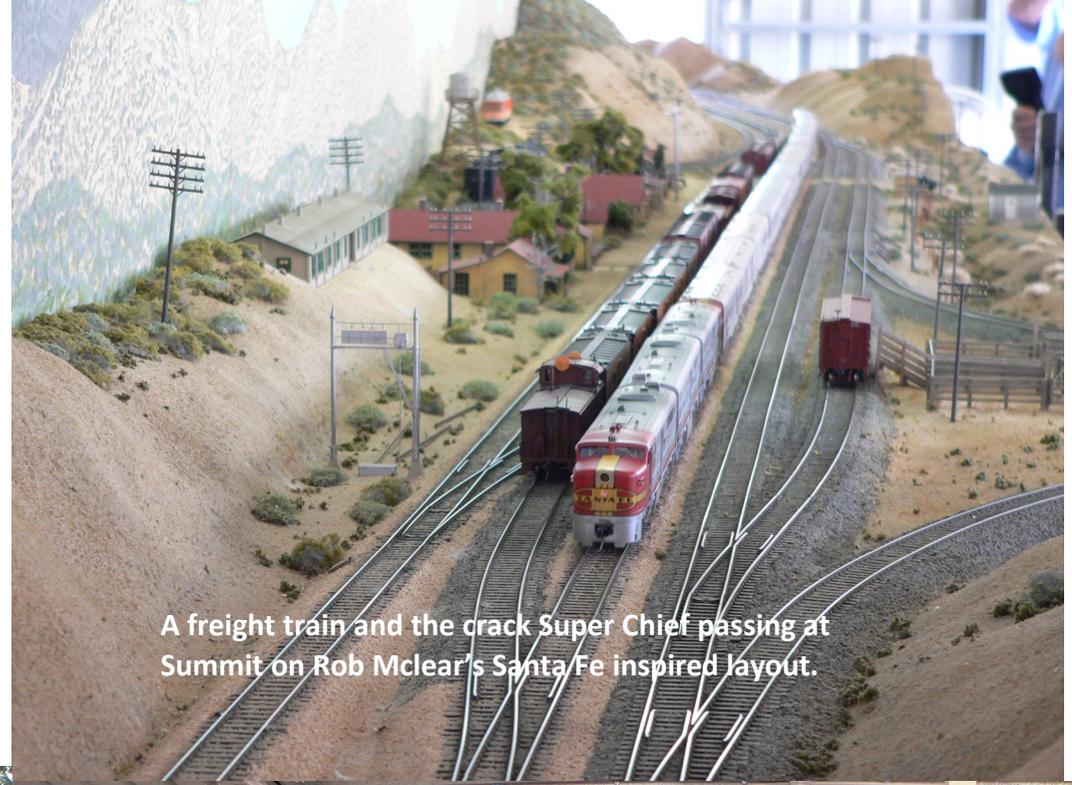
# Division One Highlights

## Visit to Rob Mclear's

Those who went out to Rob Mclear's Kingaroy property were certainly in for a great day. Rob and Jan's place is some distance from our usual haunts but the drive out was interesting and pleasurable and their property was restful and those running trains were enthusiastic in their praise of the smoothness of Rob's track work. The Santa Fe Cajon Pass layout and its features are very well done. What it's going to be like in its next phase will be worth a further visit

To put the 'icing on the cake' Rob and Jan's hospitality will fire up everyone the next time we are invited. I cannot convey how the bush setting and pleasant temperature inspired attendees to enjoy the day.

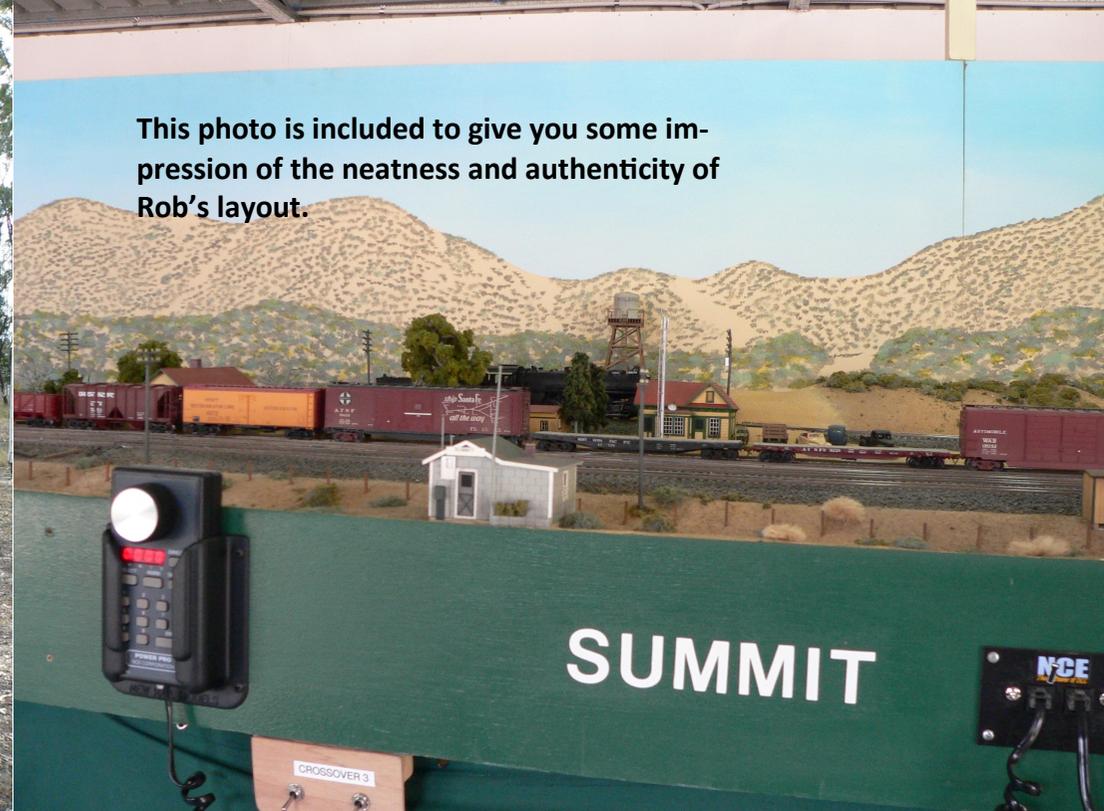
After the usual MR talk, a great way to learn from others, we headed back to our respective homes and I feel sure those who attended are looking forward to our next visit to see how much progress has been made on the multi-level layout that Rob intends to build.



A freight train and the crack Super Chief passing at Summit on Rob Mclear's Santa Fe inspired layout.



The smell of the BBQ soon got everyone out of the train room for lunch



This photo is included to give you some impression of the neatness and authenticity of Rob's layout.

# Division Four Highlights

The September Division Four meeting was held in the north-wilds of Perth at Rod Tonkin's place in Kingsley.

Members were able to see progress on Rod's layout. The brewery at Simonton is now well advanced but as yet none of their products are available for division members to sample.

Alan gave us his favourable impressions of this year's Region Convention. Peter is waiting on the decals to letter his G gauge 4-6-0. Les is still working his way through the overhaul of his layout.

Rod's scratch built malt silo for the brewery on his layout.



ble prices. Our leader acquired yet another BR 40 class. Lunch was a sausage in a bun from Western Australian Model Railway Club's sausage sizzle washed down with a refreshing

cold soft drink. We manned a static display in the heritage building of our modelling and demonstrated our OO scale radio controlled diesel locomotive. This was well received by onlookers. The radio controlled locomotive was especially well received by the kids.

Division Four demonstrated battery powered radio controlled 16.5 mm gauge models at AMRA's Western Australian Branch's open day Model Rail in November. Comments we received show there is considerable interest in radio control for small scale models. To prove the models were self contained, one of the models was demonstrated operating on plastic track.

Our November meeting was held at AMRA's Western Australian Branch's Club rooms. Peter gave us an entertaining account of his trip in the Ghan from Darwin to Adelaide. Alan was a little put out by Peter's tee shirt celebrating a certain AFL teams recent exploits. Rod showed us the static model of BR 70000 he had just acquired (is his modelling moving further to the dark side?)



Alan demonstrating radio controlled OO scale locomotive at RailFest

our OO scale locomotive at RailFest

Rail Heritage WA's Restored WAGR 2-Do-2 XA class diesel locomotive 1405 "Warengia"



Rod's BR 70000, how long will it stay clean?

We held our October meeting at Rail Heritage WA's Railfest. They proudly displayed progress on restoring XA class 1405 "Warengia" by running up the engine, without starting a grass fire as these locomotives were prone to do.

The traders stalls at Railfest allowed some of us to acquire yet more rolling stock at reasonable



Alan and Peter discussing that tee shirt



Les Enjoying a cuppa

## Division Six Highlights



Division six members watching the Rev Dr crafting a figure using transformer wire and DAS



The stages of producing a figure



A scene from Rev Dr Vern Cracknell MMR's Kangaroo and Cockatoo Railway



Rev Dr Vern Cracknell MMR #567 crafting the armature for a figure from copper wire

# Division Seven

Ken and Jenny Scales hosted the August meeting on a pleasant Saturday afternoon on 8th August. Ken had his HO scale Santa Fe layout operating. Ken also had his On30 layout set up in the garage as a static display for Division members to inspect.



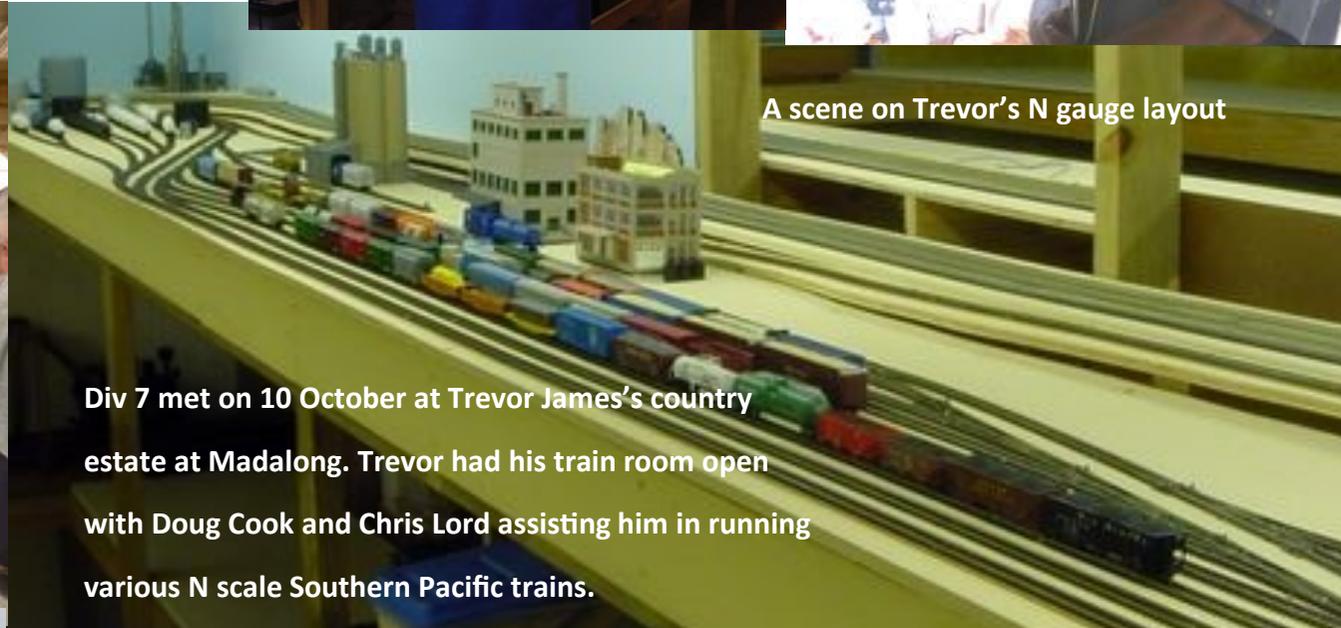
Our Host Trevor James in his layout room



Division Superintendent Les Fowler addressing the October meeting



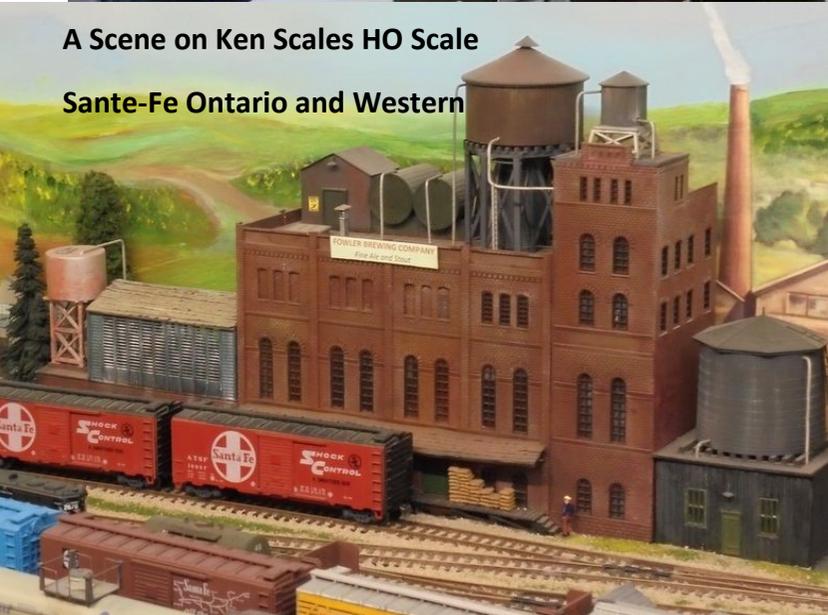
Ken Scales MMR greeting guests at the August Division Seven Meeting



A scene on Trevor's N gauge layout

Div 7 met on 10 October at Trevor James's country estate at Madalong. Trevor had his train room open with Doug Cook and Chris Lord assisting him in running various N scale Southern Pacific trains.

A Scene on Ken Scales HO Scale Sante-Fe Ontario and Western



Another view of Trevor's Layout



Fellowship at a Division meeting, the cornerstone of NMRA Australasian Region



On Sunday 8<sup>th</sup> November we were invited to the home of Geoff & Sue Langridge in the quiet suburb of Ambervale for our NMRA DIV 7 meeting.

The weather was perfect as was the company. Although Geoff does not have a layout, he does have a large decal making machine. A demonstration was given to the guests.



In the business part of the meeting, our intrepid leader, Les, gave us information on next year's convention which will be held in the western suburbs during September.



At this time, our Regional AP chairman Gerry Hopkins FNMRA presented Steve Chapman with his AP Certificate. David Latham was also presented with his seventh AP certificate – this qualified him for Master Model Railroader. Our host and hostess were thanked by Les and given a plaque to commemorate the day.



Donald Davis's photo of preserved NKP 324 Alco RSD5



Donald Davis's photo of preserved  
Prima built S.P. GS4 4-8-4 number 4449  
undergoing some workshop attention

## Narrow Gauge SIG

David O'Hearn hosted the Narrow Gauge SIG on Saturday 29 August 2015. There were 13 people who attended a BBQ starting at 12 noon with another 5 people joining the group for the 2 pm meeting.

A number of people brought interesting items for "show and tell" and some of these are shown in the following photos. We also had visits from Bill Fowler and Sowerby Smith who are both working on On30 models.



**Gary Norwood's kit-bashed HO n30 MOW car**



**Sowerby Smith's Skeleton Log Car in On30**

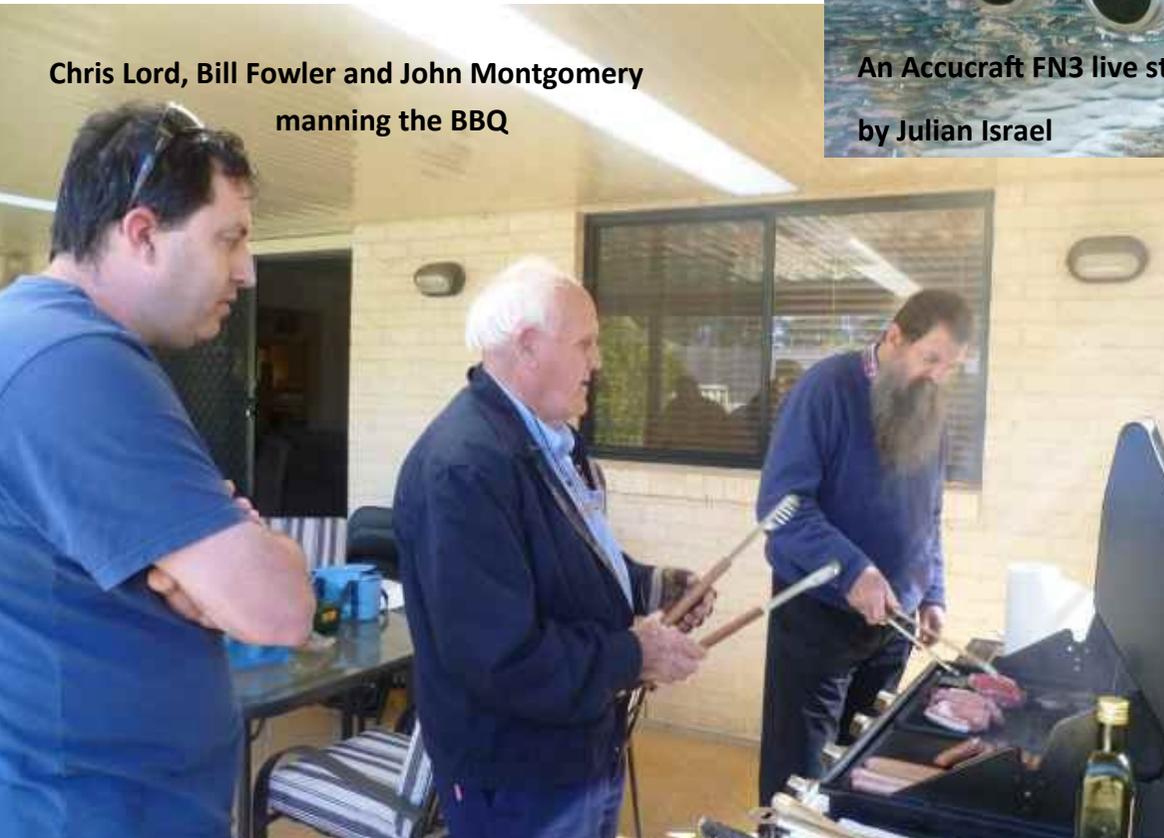


**An Accucraft FN3 live steam loco owned by Julian Israel**



**A nice building scratch built by Ray Walter**

**Chris Lord, Bill Fowler and John Montgomery manning the BBQ**



# Narrow Gauge Sig Meeting

## November 2015

Stephen Reynolds

Dark clouds and a few light showers could do nothing to deter the 16 attendees from a very enjoyable day at the most recent Narrow Gauge SIG meeting held at the abode of John and Natalie Montgomery in outer Sydney, Those who remembered to bring their meat along enjoyed a nice BBQ, accompanied by a wholesome salad provided by Natalie, John (I think) cut up the onions.



16 members were in attendance and the Show and Tell was well supported. These included Greg Hildey with the side of a Car Barn that was very well finished but so far has consumed an unbelievable amount of scale timber and no doubt will consume a lot more before it is finished. Also a flat wagon with a pipe load as well as an old La Bell kit of a timber coach, both very nice models. Chris Lord produce a print-



out of a very unusual guards van believed to be a Tasman prototype perhaps from the ABT Railway.

Ken Scales has modified a toy truck into a timber jinker as well as showing two background models of a drill press and lathe to go in a shed on his saw mill complex.

John Meredith showed us two brass pullers he had turned up himself for removing the worm gear from motors and a wheel puller as well as a brass flywheel to go on a very small motor.

I brought along a BTS Company Cottage kit that is now complete and explained how I produce the weathering effect on the building.



Last but not least, new member Neal Munk showed off a work train comprising of a modified Bachmann Diesel and four small Backwoods Miniatures four wheel wagons all finished off to a very high standard.



After all this we ventured into John's garage where he is constructing a very nice On30 layout and ran a few items of rolling stock. We were also able to see how John had incorporated the saw mill complex from the Red Stag layout into his layout.

All photos by the author except where noted

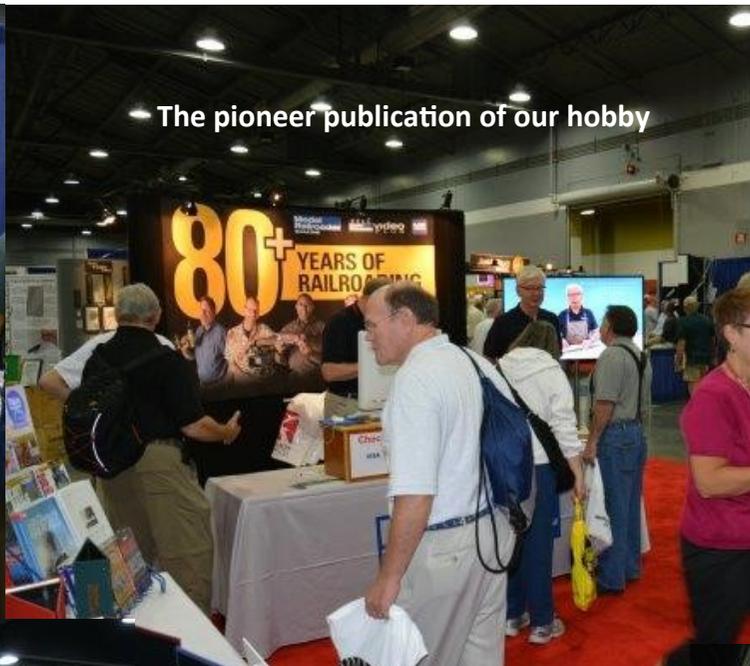


# National Model Railroad Show Portland 2015 Trade displays

Photos by Arthur Hayes



The new face of model railway magazines



The pioneer publication of our hobby



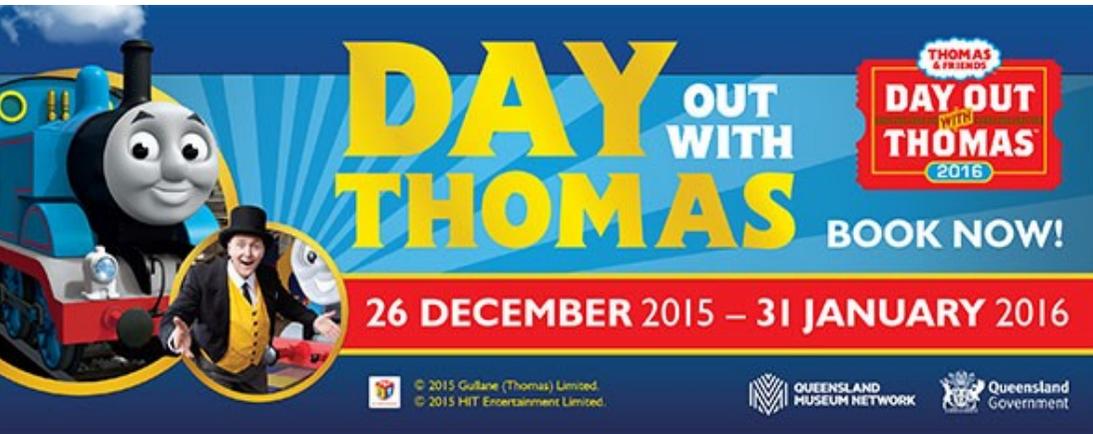
The Empire strikes back



The usual suspects



# Upcoming Events



## The Miniature Train Club – Gold Coast

**(100% NMRA Club)**

is pleased to advise the 7th Annual Miniature

Trains on the Coast – Model Train and Hobby show is on in 2016.

The Venue is the as last year – Carrara Indoor Sports Centre

Broadbeach-Nerang Road, Carrara.

The Dates – Saturday 25th and Sunday 26th June, 201

## AMRA Western Australia Branch

40th Annual Model Railway Exhibition 4th, 5th and 6th Jun 2016

At the Royal Agricultural Society Showgrounds Maylands WA

Opening times 10.00 am to 4.00 pm

Paid parking on site



## Darling Downs Model Railway Club Inc.

**(100% NMRA Club)**



Model Trains at the Toowoomba Farmers Market

We are pleased to announce that we will be opening our Model Railway Museum & Display Centre during the Farmers Market Days in the Toowoomba Showgrounds.

Opening times will be 9am to 12noon

The Farmers Markets are a monthly event, generally on the last Saturday of the month, links to their sites and information are shown below.

Our operating displays are sure to intrigue with layouts in N and HO/OO scales operating, displays showing how to build your own model railroad, FREE Magazines, including the latest copies of Model Railways in Australia, you can see the beginnings of the clubs large permanent HO/OO Scale layout, colouring in for the children, a U-Drive HO Scale layout just for the kids and constant screening of railway subjects on a big screen TV.

Toowoomba Farmers' Market contact details

E | [info@toowoombafarmersmarket.com.au](mailto:info@toowoombafarmersmarket.com.au)

W | [www.toowoombafarmersmarket.com.au](http://www.toowoombafarmersmarket.com.au)

FB | [www.facebook.com/Toowoombafarmersmarket](http://www.facebook.com/Toowoombafarmersmarket)

**This space is available for you to publicize your event. exhibition or open day. Please send details of your event to the editor for inclusion in future editions of MainLine.**

**Freight Australia fuel tender**



Pacific National/ National Rail usually used two 4,000 horse power NR's on freights across the Nullarbor. Freight Australia typically usually used three 3,000 horse power "G" class on similar sized trains. Occasionally their train was headed up by their sole 4,000 horse power "V" class locomotive V544.

All photos by the editor.

### **Prototype Observations**

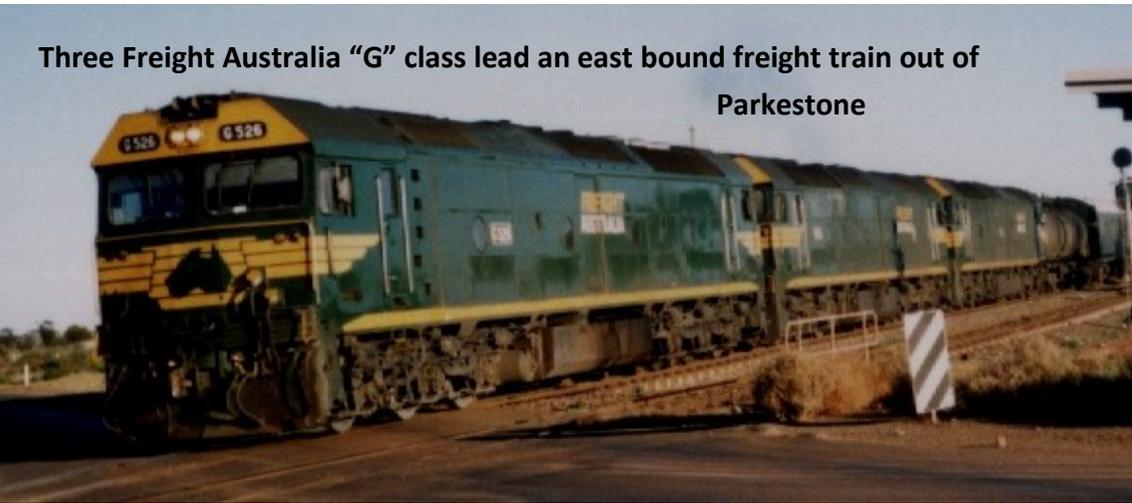
The SCT trains operated by Freight Australia through Kalgoorlie in 2003 provided a spot of contrast to the seemingly endless succession of NR/PN trains.

Freight Australia's SCT trains did not need to refuel at Parkestone. Their trains carried a locomotive fuel tanker attached immediately behind the train locomotives. Fuel transfer pumps transferred fuel from the tanker to the locomotive fuel tanks as required. The SCT trains did stop at Parkestone for freezer van inspections. This stop allowed the three man train crew to stretch their legs before commencing the run into Perth.

Trains requiring more than twelve hours for the run from Cook to Parkestone required a three man crew. One of the crew had to ride in the crew coach attached to the train behind the locomotives at all times to ensure they were rested before their next stint in the lead locomotive cab.



**The pride of Freight Australia's roster "V" class V544**



**Three Freight Australia "G" class lead an east bound freight train out of Parkestone**



**Freight Australia's crew car "Croissant"**