



# Western Lines



The Journal of Australasian Region  
Division Four Vol 2 No 3

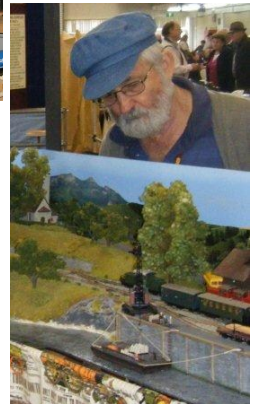


# What is Western Lines?

Western Lines is the Newsletter of NMRA Australasian Region, Division Four. It will report on our meetings, planned meetings, members modelling efforts and local railway happenings.

## Division Four Team

- Rod Tonkin Divisional Superintendent and Western Lines Editor
- Phil Knife Achievement Program Divisional Manager
- Alan Burrough Division Secretary and assistant Western Lines Editor
- Peter Scarfe Division Treasurer



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**Cover photo;** A north bound three car set slowing to pick up passengers at Greenwood, my local railway station in the middle of the Mitchell Freeway on Easter Monday this year.

For meeting addresses please contact Rod Tonkin at [rjtonkin@iinet.net.au](mailto:rjtonkin@iinet.net.au)

## Editorial Mumbblings

We welcome Phil Knife MMR who has taken over the reigns of the Achievement Program for Division Four. This issue sees the beginning of our Divisional project layout “Western Lines”

## Who are we and what do we do?

We are the members of NMRA Australasian Region, Division Four. We live in Western Australia. The land of giant iron ore trains and an extensive open access railway system operating on standard gauge, narrow gauge and dual gauge track.

We meet monthly to share our hobby experiences. We range from keen scratch builders, to open the box enthusiasts. Our layouts range in size from HO scale layout taking up rooms of the house to a HO scale layout in a walk in wardrobe.

Like the trains in our back yard our tastes in modelling vary. We model in N, HO and OO scales, The prototypes we follow are mainly North American with some local prototypes and just a touch of British Railways.

Our meetings include running days and operating sessions on members’ layouts, modelling technique demonstra-

tions and workshops and visits to kindred groups.

## Future meetings

We usually meet at 2 pm on the last Sunday of the month. Future meetings are

- 27th July Rod Tonkin  
Working session on our project layout “Western Lines”
- 31st August Peter Scrafe  
Tractive effort trials using our test track.
- 28th September AMRA WA  
Bring a train, run it and tell us about it and how you modelled it.

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

# Recent Meetings

## April 2014

The April meeting was held at Rod Tonkin's after heavy rain showers. (The first rain this month)

We checked out the NMRA banner to be used on Frank's layout at the June Model Railway Exhibition. It was trial assembled and dismantled without incident and we judged it ready to use at the show.

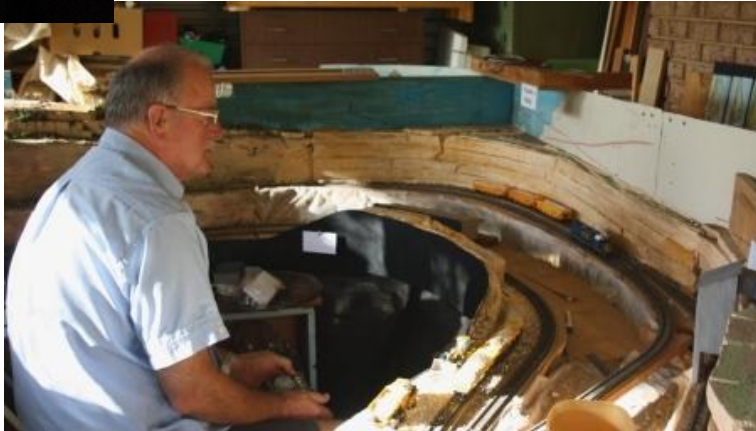
We were able to watch Rod's BR rolling stock operating in the moonlight on his layout in the wardrobe, Wombat Gully as shown in the photo at the right.



The photo at the left taken by Peter Jackson the superintendent of Division Six on a recent trip to WA shows just how cozy Rod's Wombat Gully layout really is.

The operating session on Rod's Martindale Creek outdoors layout followed afternoon tea. The layout performed well despite the change in the weather usually responsible for awakening the

gremlins. The photo shows Alan at the controls of branch line local train number 101 working the gravel loading facility at Brooke's Siding.



# May 2014

The April meeting was held after a week of heavy (for Perth) rain at Peter Scarfe's. Our numbers were slightly down as our meeting was a week before the AMRA Model Train Show.

We finalized support for Frank and Garth's Exhibit at the AMRA Show on the following weekend.



Rod showed us the OO scale British Railways Mk1 SK corridor second coach, magazine and section of the track plan making up issue one of the Model Railway Village part works series. The coach was generally agreed to be a good buy especially at \$8.00 a pop. Rod advised us he had bought five of them..

The coach-a model of the most common of the Mk1 coaches has been supplied un lettered. This makes it easier for the purchaser to number their coach/coaches as required.

The manufacturer has taken a liberty with the underframe. The model has a solid fish belly underframe. Not the angle iron truss underframe used on the British Railways Mk1 coaches. This is only visible on the model if it is viewed at eye level.

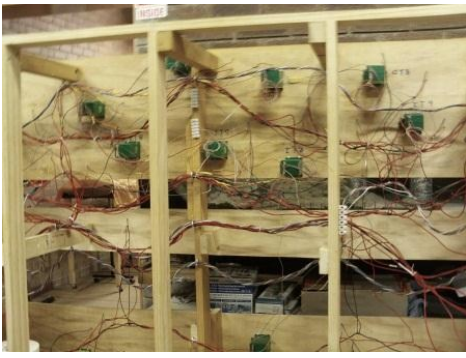
The model lacks one prototype feature. The Eastern and Midland regions of British Railways operated these coaches in the maroon colour scheme the model is delivered in. These regions had arm rests on the three abreast seats.

A neat feature of the model is the coupler mounting. The coupler mounting is guided by the bogie as it swings. The coupler extends as the bogie pivots to maintain the vehicle spacing regardless of curve radius.

**June 2014** The June meeting was held under grey skies at the AMRA WA Branch Clubrooms. Our host Alan Burrough is in charge of AMRA's "Valentine Run" HO Scale North American layout. After a short meeting bringing members up to date on Regional affairs and the very effective June regional committee meeting telephone hook up, we enjoyed afternoon tea



We were able to inspect the two new modules of the "Valentine Run" almost ready for installation. The photos show Alan and Peter in-



specting the river module and Alan's wiring under the other

module.

The theme of the meeting was bring a train tell us its background and run it on the "Valentine Run." Alan ran an iron ore train hauled by a B & O EM-1 2-8-8-4. These handsome locomotives were delivered to the B & O in 1944/45 in lieu of the diesel locomotives they requested by the War Production Board. Though intended for heavy coal trains they were used on passenger trains until 7625 derailed in passenger service killing the driver in 1947. They reverted to coal train service until retirement in 1957. While the "Valentine Run" is a north American style layout, consid-

eration is given to us back sliders modelling pommie trains. The photos show the staging yard side of the "Valentine Run", Rod's parcels train on the main line and the slight mishap to Alan's iron ore train caused by his 4-8-4 tail ending it. The mishap is the subject of an inquiry.



# “Western Lines”

## The model railway with a future:

### Concept and Design

Designing “Western Lines” is a straightforward process. You need to select the type of trains you want to operate, select the curve radius they require to operate reliably, determine how much space you have for your layout and design a track arrangement to make good use of the space you have with the curve radius you have selected.

### Selecting your theme

Building “Western Lines” or something similar will help you to develop the basic skills and give you the experience you’ll need to successfully build and operate a larger layout in the future.

The first step in designing a layout as discussed in NMRA AR Basic Skills Module Three “Layout Planning” is selecting your prototype, era and locality. Selecting a theme for your layout will guide you in the selection of your rolling stock. The rolling stock you select will determine the curve radius of your layout.

I’ve become partial to British preserved Railways. These preserved secondary lines have limited platform lengths. The limited platform length results in large locomotives hauling modest length passenger trains. This is an ideal basis for a small model railway.

I particularly like the early British Railways 1-Co-Co-1 wheel arrangement passenger diesel electric locomotives such as 40141 shown in the attached photo. The real BR 40 class needed a minimum curve radius of four and a half chains. In OO scale this is around 1,200 mm radius. For most of us a curve of this radius is of academic interest only.



## Selecting your curve radius

Selecting the curve radius for your layout is a bit like the chicken and egg riddle. Your choice of rolling stock determines the curve radius you need to operate the models. The space you have for your layout limits the style of layout you can build using the curve radius your intended models require.

“Western Lines” has to be transported to an event in one trip in my car. The size of Western Lines is dictated by the size of my car. The largest object I can transport is a rectangular box 1,200 mm long by 600 mm wide by 400 mm tall riding on the back seat. A folded up layout fitting into this transport limitation unfolds into a layout 1,200 mm square.

Fitting a reasonably useful OO scale layout into a space 1,200 mm square rules out using the BR 40 class’s OO scale prototypical 1,200 mm radius curves.

Fortunately for us modellers, both Hornby and Bachmann’s design engineers have been able to design OO scale models of BR’s 40 class capable of reliably negotiating rather sharper curves than the real thing. They have achieved this without visually impairing the appearance of the models as displayed by the photo below of Bachmann’s OO scale model of the BR 40 class rounding the minimum radius curve recommended by the manufacturer.



The major manufacturers of OO scale

British Railways rolling stock recommend using Hornby or PECO Number Two curves as your minimum radius curves, for main line rolling stock. (These 438 mm radius curves will also reliably operate models of most reasonable sized HO scale diesel locomotives and freight cars.)

OO scale models of large BR rolling stock do suffer from body overhang negotiating these curves. While this is unsightly as the photo of Hornby built BR 40152 demonstrates, the models reliably negotiate these curves.





In contrast to models of large rolling stock, as the attached photo shows models of typical British Railways goods wagons are right at home on number two radius curves.



## Track Plan Design

With the curve radius selected, it only remains to see what sort of a layout you can build in the space available. A 1,200 mm square layout in 16.5 mm gauge is a track planning challenge. The concept of the layout design square as a guide to layout design is described in Basic Skills Module Three. For “Western Lines” 438 mm minimum radius curves the length of the side of the track planning square is 555 mm. The 1,200 mm square layout space we have in track planning squares is just over two squares long by two squares wide. Referring to Basic Skills Module Three the only practicable option for a two square by two square layout space is a continuous run oval.

While an oval track plan may appear to provide minimal operating opportunities, they are a great track arrangement for learning to operate your trains as described in NMRA AR Basic Skills Module One.

The track plan for “Western Lines” is based on using Hornby or Peco set track and point work. Basic Skills Module Five “Track Laying” recommends using set track curves for curve radii less than 600 mm in 16.5 mm gauge.

The crossing loop and siding shown on the track arrangement mock up considerably increase the layouts operational potential. The crossing loop and siding allows for two train operation or a goods train working the siding. The number of sets of points on “Western Lines” and potential two train operation fulfils the track work and operation requirements for NMRA’s Achievement Program “Golden Spike” award as described in Basic Skills Module Ten.



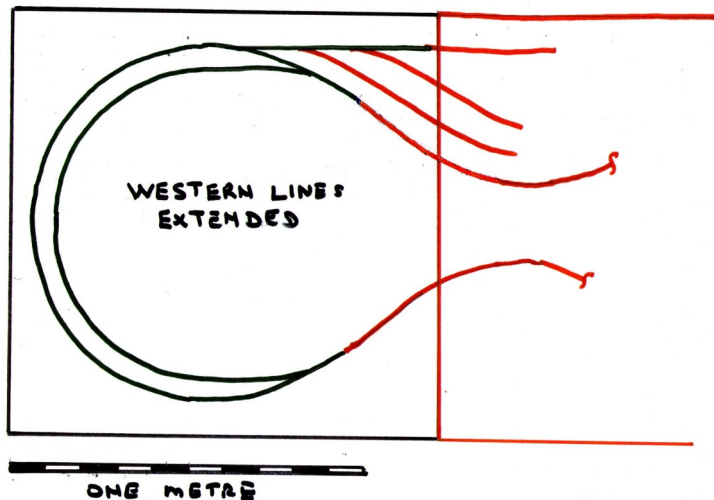
The track arrangement mock photo up shows “Western Lines” has an oval of 438 mm radius curved track with an outer crossing loop of 504 mm radius curved track and a siding off the crossing loop. This arrangement has a couple of advantages visually and operationally. The points at each end of the crossing loop are at an angle to the edge of the layout. This leads the eye away from the edge of the layout and makes the layout appear larger. Placing the crossing loop outside the main line has the advantage of increasing the length of the crossing loop.

The 504 mm radius curved outside crossing loop as the photo shows can hold a train of a reasonable sized OO scale locomotive and five or six British Railways coaches. This



is a respectable length train even on a large layout.

While “Western Lines” is a very small layout, it can have a future. The attached sketch shows how Western Lines might look as one end of a larger layout. Extending “Western Lines” takes advantage of the full sized train length capacity of the original crossing loop.





## Member's modelling

This year Frank Godde and Garth Caesar represented Division Four at the AMRA WA Branch model railway exhibition with their "G gauge in a box" layout "Knott's Lumber." This twelve metre by six metre layout consists of scenic sections in boxes connected by non scenic track sections supported on trestles.



# Prototype happenings

Narrabri in north west New South Wales was all mechanically signalled in the mid 1970's. The photos show the Narrabri Junction lever frame, the Narrabri station distant signal and the wrought iron lattice post Narrabri station home signal.



Sheep transport by rail was rare by the mid 1970's but cattle shipment by rail was still a regular occurrence. The photos are the Narrabri sale yard cattle loading chute and the railways stockyard sheep loading chutes in late 1974.

