

Main Line

Winter 2011
Volume 28 No2

National Model Railroad
Association Inc.
Australasian Region



**DC is still alive
and well!!**

Features:

The Santa Fe and Southern Pacific in N Scale
Sounds made by older diesel engines
Building and finishing large and small layouts
Building wooden laser cut structures
Craig's Crossing
Car Cards, Waybills and Switch Lists
The Allegheny Midland - Book Review
Divisional Reports

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Australasian Regional Directory

www.nmra.org.au – NMRA Inc. PO Box 25 Pymble NSW 2073

Regional Committee

President	David Howarth MMR (02) 9498 4995	president@nmra.org.au
Vice President	Erik Bennett (02) 9997 7971	vicepresident@nmra.org.au
Secretary	Kelly Loyd (02) 4956 5793	secretary@nmra.org.au
Treasurer	James Wyatt (02) 4751 1596	treasure@nmra.org.au
Pacific District Director	Peter Jensen (02) 4024 1903	director@nmra.org.au
Member	Phillip Anderson (02) 9879 0307	phillip@nmra.org.au
Member	Rowan Mangion 0416 113 588	rowan@nmra.org.au
Member	Paul Marrant (02) 4959 6683	paul@nmra.org.au
Public Officer	Rob Peterson 0408 682 336	publicofficer@nmra.org.au

Superintendents

Division1 Queensland	Glenn Stevens (07) 3207 2442	div1sup@nmra.org.au
Division 2 ACT	Viv Brice (02)6254 8204	div2sup@nmra.org.au
Division 3 Vic/Tas	Grant McAdam (03) 9578 8685	div3sup@nmra.org.au
Division 4 WA	Alan Burrough (08) 9364 6527	div4sup@nmra.org.au
Division 5 New Zealand	Kelvin Sherson (04) 234 8577	div5sup@nmra.org.au
Division 6 SA	Geoff Chatwin 0414 702 755	div6sup@nmra.org.au
Division 7 NSW	Erik Bennett (02) 9997 7971	div7sup@nmra.org.au
Division 8 Nth Rivers	Ian Phemister (02) 6658 2626	div8sup@nmra.org.au
Division 9 mid North Coast	Mike Bartlett (02) 6553 6227	div9sup@nmra.org.au

Regional Volunteers

A.P. Manager	Gerry Hopkins MMR (02) 4329 0242	ap@nmra.org.au
A.P. Asst. Manager, Vic	Laurie Green MMR (03) 9744 5188	apvicevic@nmra.org.au
A.P. Asst. Manager, S.A.	Ray Brownbill (08) 8389 1045	apvicesa@nmra.org.au
A.P. Asst. Manager, Qld Nth	Graham Emery (07) 3409 4784	apviceqldnth@nmra.org.au
A.P. Asst. Manager, Qld Sth	Martyn Jenkins (07) 5563 7554	apviceqldsth@nmra.org.au
A.P. Asst. Manager, W.A.	Phil Knife MMR (08) 9459 4506	apvicewa@nmra.org.au
A.P. Asst. Manager, ACT	John Prattis (02) 6291 7898	apviceact@nmra.org.au
Librarian	Paul Marrant (02) 4959 6683	librarian@nmra.org.au
Contest Chairman	Gerry Hopkins MMR (02) 4329 0242	contest@nmra.org.au
Editor –MainLine	Geoff Horne (02) 4954 7632	editor@nmra.org.au
Web Master	Wayne Eagle (02) 9627 9892	webmaster@nmra.org.au
Web Updates	Gerry Hopkins MMR (02) 4329 0242	updates@nmra.org.au
Education Chairman	Gerry Hopkins MMR (02) 4329 0242	education@nmra.org.au
Membership	Denise Bennett, (02) 9997 7971	membership@nmra.org.au

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Article Submissions: The Editor welcomes any train related articles, photos, drawings, cartoons, letters to the Editor and other related material.

Any submission can be delivered by email, or posted. It is preferred that any submissions be made by using a computer, however, type-written is acceptable. Articles can be submitted in any file format.

Publication of articles submitted are at the discretion of the Editor. The opinions expressed in MainLine are those of the author and the NMRA does not necessarily endorse them.

Cut-off dates for article submissions:

- * Spring 2011 12th August
- * Summer 2011 11th November

The Editor
Mainline
29 Kenley Crescent
Macquarie Hills, NSW 2285
Email: editor@nmra.org.au
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Advancing the global model railroading community through, advocacy, standards, education and social interaction.

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Photo Credits

Front Cover:

*A pair of Santa Fe locomotives ease over a steel girder bridge on Doug Cook's N Scale empire:
Photo by Geoff Horne*

Centrefold:

Left side:

With quality scenery such as this it is very difficult to pick the scale at all:

Right side:

The only hint to DC control with the track diagram and the depth of scenery so hard to replicate in the larger scales.

Photos by Geoff Horne

Back Cover:

Long sweeping curves a feature to please the eye of any modeller as well as the odd townships along the mainline.

Photos by Geoff Horne



The Computer Keyboard

with

Editor - Geoff Horne

The number of articles in the in -tray is very, very low at present so how about having a go at writing something if you think that it will be of interest to the membership .

Photographs are always welcome as well, but make sure that you include the name of the photographer and a very brief description.

With not much to say this time, I am including a few photographs that I took of some of the trains that were running at the recent Maitland SteamFest as well as the odd Coalie that were very active all weekend.

This is the advantage of four mainlines and an abundance of vantage spots.



4 x 48s heading to Port Waratah

42111 excursion to Newcastle



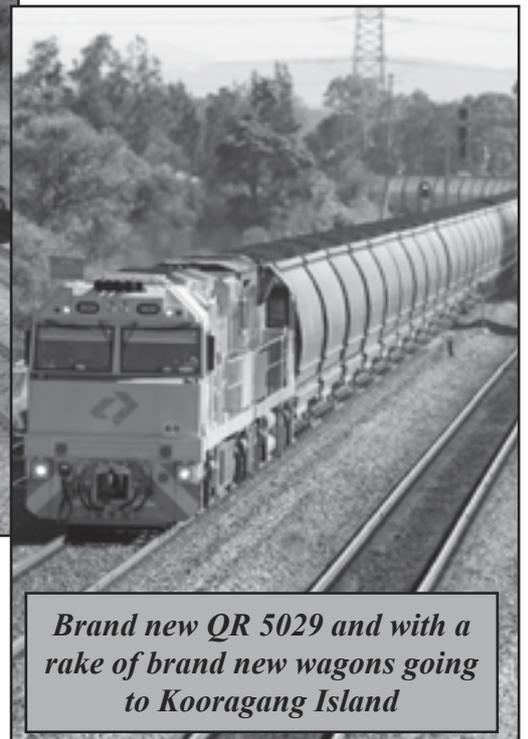
*What are the chances of these numbers together?
3265 Right and 3526 Left*



Tiger Moth racing the steamers



Brand new QR 5029 and with a rake of brand new wagons going to Kooragang Island





I am sure, like me, you go through periods of varying intensities of modelling. At times we spend good periods of time and energy, and produce a lot of good models. At other times we are distracted by the real world.

Since our last edition of MainLine, I have found myself tied up with part-time professional work, a fascinating two week visit to Abu Dhabi in the United Arab Emirates to visit my daughter and her family, and my wife Yvonne and I have been spending much time looking for a new place to call home, with more space to build a new O Scale layout! All very worthwhile activities, but not very productive as far as model making goes.

Notwithstanding the above, you might not be aware, but I achieved NMRA Master Model Railroader status since I last wrote, having been presented with my certificate # 454 by Gerry Hopkins, our Achievement Program Manager. Needless to say I am proud of this achievement. More importantly, I found the exercise very enjoyable, and it made me learn to be a better modeller and at times got me out of my "comfort zone", which is a good thing. I have still a few more categories to attempt, which I will try to do over the next few years. I commend the program to you all, and encourage you to give it a go. I am sure you will find it as rewarding as I did.

I have suggested to the Regional Committee that we bring together all the Divisional Superintendents, together with Regional Committee to discuss, review and propose new initiatives for our Association for the coming years. This is the first time we have sought to bring all these Regional leaders together. Our first

From the CAB

with

David Howarth MMR - President NMRA AR

meeting will be held in Sydney in October 2011. The cost to the Region will be minimal, but the returns great.

Members should be aware that the owners of Muskrat Ramble have decided, for various reasons, not to donate the layout to the NMRA Model Railroad Museum Display in Sacramento, and hence the Region will now, not be footing the transportation costs.

The attached photograph shows one of my wonderful O Scale RDC-2 Budd Car models made by Sunset Models. I wanted to add a sound decoder to this for DCC running. In real life, the cars are driven by two 275hp two stroke diesel engines. After some searching, I was helped by Gary Spencer-Salt of



The Model Railroad Craftsman, whose shop is in Blacktown, NSW. Gary is doing some interesting work adding sounds to Loksound decoders. He added the appropriate diesel sounds to a 3 ampere decoder which is suitable for the larger scale models. It sounds terrific on the test bed, and now all I have to do is install the decoder. So I had better find time away from "real life" activities, and get on with more modeling.

Until next time,

David

Report from the PACIFIC DISTRICT DIRECTOR

Sacramento Convention

What a roll up for the Sacramento Convention, the unconventional convention. At this, 6 weeks out, there are 47 members and partners from Australia and New Zealand making the trek to the US. This will indeed be a massive turnout from down under.

For those going, remember that there will be a get together at 6.00 pm on the Sunday. Look on the convention notice boards and the agenda for the location. With the large turnout, we have had to change the venue.

There is still time to register. This will be the largest convention since St Louis in 2002.

Board of Director's Meeting

For those attending the convention, if you want something to do on the Friday and Saturday before the convention, you are welcome to attend the NMRA Board of Director's meeting. All members can attend these meetings. Come along and see the NMRA in action.

Pacific District Director Election

I am pleased to announce that we have several very capable candidates for next year's election for the Pacific District Director. This election will be held in Feb / March 2012 next year for the new Director to take up office in July 2012. At this election, you will also be voting for the President and vice Presidents of the organisation.

It is hard to believe that my two terms of (6 years) will be coming to an end with this election. Having

just bought a new house, with a railway room already finished; I look forward to re-engaging in the great hobby of ours by building a new layout.

Cheers ... happy modelling

Peter Jensen

Pacific District Director



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Just because you can't make it to a national convention doesn't mean you have to miss out. Right now the NMRA's Kalmbach Memorial Library has over 50 DVDs of clinics presented at national conventions from 2002 to 2010. Each is available for NMRA members to borrow for the cost of processing and postage.

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EXTRA 2011 WEST

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2011 NMRA CONVENTION SACRAMENTO, CA

DIVISIONAL CALENDAR

Queensland

16th July	Graham Emery	20/21 August	Visit To Warick
17th September	Justin Walker	8/9 October	NMRA Regional Convention, Melbourne
15 October	Martyn Jenkins	19 November	Glen Stevens
17 December	Division One Christmas Party		

Canberra

4 Jun	Viv Brice	30 July	Ken Macleay
2 Jul	John Bullen	24 Sep	John Gillies
27 Aug	Rob Anderson	22 Oct	David O'Hearn
Oct 8/9	Regional Convention, Noble Park, Melbourne	10 Dec	Steve O'Brien
19 Nov	Brad Hinton		

Victoria

Jun 19	TBA	Jul 17	Gavin & Louise Hince,	Clifton Hill	
Aug 14	Laurie & Rosemary Green	Sunbury	Sep 11	Bob & Myra Thornton	Hoppers Crossing
Oct 8-9	NMRA CONVENTION, Noble Park, Melbourne,		Nov 13	John Dennis	Mitcham

South Australia

04 Jun	Max Wright
06 Aug	Scott Taylor
01 Oct	Ian Wade
Oct 8/9	Regional Convention, Noble Park, Melbourne
03 Dec	Ray Brownbill

Sydney

Jun 11	Sam Mangion	164 Buff Point Road,	BUFF POINT	43992150
Jul 9	John Montgomery	12 Lindwall Place,	SHALVEY	9628 9921
Aug 13	<i>See NOTE below for change of venue</i>			(02) 9997 7971
Sep 10	Paul Marrant	23 Puntee Street,	KILABEN BAY	4959 6683
Oct 8/9	Regional Convention, Noble Park, Melbourne			
Oct 8	John Baker	54-60 Rosebery Road,	KELLYVILLE	9629 2349
Nov 12	Bob Best	34 Winnicoopa Rd,	BLAXLAND	4739 1953
Dec 10	TBA	TBA		

Division 7 August Meeting

The venue for the Division 7 August meeting has been changed and will now be held at the Hills Model Railway Society at their clubrooms in the grounds of the Masonic Schools Oval off Seven Hills Rd opposite Jasper Rd. Start time is 2pm.

The layouts on show and useable will be:

- Springfield Junction - HO DCC
- Iron Hill -HO DC
- Club N – N DC

Also on display will be the initial work on the club's new HO Australian based layout.

The large N-scale layout will be on show at the Marklin Exhibition at the Beecroft Community Centre. Members might like to double up their modelling enjoyment by visiting that exhibition on the way to the NMRA meeting. The club is keen for members to bring their engines and trains to run on the layout, so Show & Tell for this month can be your favourite loco(s).

SOUNDS MADE BY OLDER DIESEL LOCOMOTIVES

By Ken Scales MMR

This article is about understanding how diesel locomotives work and why they make the noises we try and replicate in our models. To understand the basics of older Diesel Locomotives it is probably best to look at their history. The first known diesel locomotive in the USA was produced by GE for the Jay Street Connecting Railroad in 1918. It had a 200 horsepower V8 engine but it was not a commercial success and was returned to GE shortly after delivery. The first successful production locos in the USA were small box cabs built in a joint production by GE, Ingersol Rand and Alco in 1924. It was not until 1928 that Alco in a joint venture with the New York Central railroad built the first successful road diesel which remained in service almost as built up to 1946. Even after that it was rebuilt and remained in service until 1953. Other loco manufacturers such as Baldwin built large diesel locomotives as early as 1924 but none were considered a commercial success.

The real change that made diesel electric propulsion so attractive was the use of a governor which allowed the locomotive to be controlled with a single throttle lever. The Electro-Motive Corporation had plans to build doodlebugs using GE electrical components and Winton Engines. A Swiss engineer working for GE by the name of Lemp developed a governor at the request of EMC to be used in Gasoline Electric Doodlebugs. Over time Winton developed distillate and finally diesel engines until both it and EMC became the EMD division of General Motors. EMD then went on to develop the most commercially successful early diesel electric locomotives which changed the way railways operated from that time on. Most older locomotives use either Woodward or GE governors. Both of these work in a similar way and they have a bearing on the overall sound made by the loco.

While modern locomotives use electronics to control both the diesel engine and the generator they still use the same basic components. If you are really interested in adding realistic sound to your locos it helps to know how it all works.

On most older US and Australian locos there is a single throttle which controls both the generator and diesel engine. It has an idle or off position and 8 running notches. The speed of the diesel engine increases as the throttle is advanced from notch 1 to 8.

The amount of electrical current produced is automatically controlled by the governor. The governor will determine this either by measuring the axle speed or the current running to the traction motors. It then changes the amount of current fed to the outside coils in the generator which controls how much current the generator will actually produce. This process is known as exciting the field coils. This as a consequence controls the speed of the traction

motors which drive the loco because it regulates the amount of electrical current they receive. There is also a reverser handle which has off, forward and reverse positions. This operates by reversing the polarity of the electrical current flowing to the traction motors

Most locos have a traction motor for each set of wheels. The current delivered to the traction motors is also dependant on how they are connected in to the generator. Most older locomotives start in what is known as series/parallel. This means that they are connected together in each bogie in series and the sets of traction motors in each bogie are connected together to the generator in parallel. This reduces the amount of power required from the generator when starting the train. As speed increases the electrical system changes the way in which the traction motors are connected. It also changes the way electricity is fed to the field coils in the traction motors in a process known as a field shunt. The locomotive performs a procedure known as "transition". As part of this process the traction motors are reconnected to the generator in parallel which requires a much higher current output from the generator. On most mainline freight locos there are 3 or four stages of transition. It is this procedure which we often try to replicate with our sound decoders because it changes the load and as a consequence the sound made by the diesel engine in the locomotive.

One of the main aims of transition is to protect the electrical system from back current produced when the traction motors act as generators. Many locomotives are fitted with dynamic brakes which use the traction motors to help slow the train. When these are applied the traction motors act as generators and the current is fed into resistance grids. This further protects the electrical system from back current and reduces the load on the brakes during long descents. Most of the grids are cooled by fans which produce a distinctive noise. This is another feature which we try and replicate with the sound units in our models.

The diesel engines used in older locomotive are generally fa2supercharged two strokes. On these engines air is forced into the cylinders through ports in the side by a mechanically driven supercharger. These ports in the side of the cylinders act as valves when the piston moves up and down. When fuel is injected and the engine fires the burnt gas is then forced out as the piston moves up and pushes it through exhaust valves in the top of the head. There are two strokes of the piston and one revolution of the crankshaft to complete a working cycle. Most early EMD units are supercharged two strokes. Around 1959 EMD began using turbochargers as well as superchargers. Eventually most EMD engines became turbo-supercharged two strokes.

The second are turbocharged four strokes. On these

engines air is forced into the cylinders through inlet valves in the top of the head. Fuel is injected and the engine fires forcing the piston down. As the piston moves up it pushes the burnt gas through exhaust valves in the top of the head. The burnt gas drives the blades of the turbocharger as it exits through the exhaust. There are four strokes of the piston and two revolutions of the crankshaft to complete a working cycle. Most Alco and GE units are turbocharged four strokes. Normally aspirated four stroke engines work in a

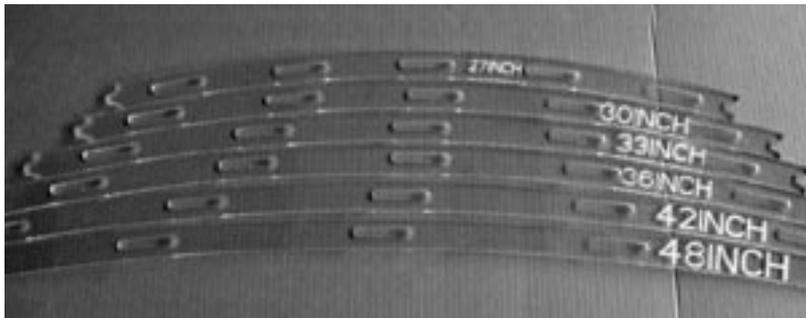
similar way except that the air is sucked into the engine by the effect of the piston moving down instead of being forced in by the turbocharger. Most Caterpillar engines are naturally aspirated four strokes.

Most of this information is very general and related to older US and Australian locomotives. Newer locomotives use electronic controls and alternating current and they are built to comply with stringent noise regulations. Many do not have transition. Consequently they sound very different.

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Many early EMD diesel engines were supercharged two strokes and their exhausts were more difficult to silence because they did not tolerate high backpressure from mufflers. Alcos which were turbocharged four strokes were also noisy but not for the same reasons. Two stroke and four stroke engines usually sound very different. The noise made by the superchargers and turbochargers adds even more distinctive sounds

to different locos. Combined with noisy exhausts and lack of sound proofing material in the loco bodies, older locos often have a far more distinctive sound than their more modern counterparts. The sound decoders made for early EMD and ALCO locomotives make far more distinctive noises than the newer locomotives because their 12 inch to the foot cousins did the same.

Building Finished Layouts Large and Small

By Ken Scales MMR

The best strategy for building a successful finished layout is to follow the mantra of the late Frank Elliston. He always said that a model railway layout is a stage on which our models perform. This is also a reminder that the layout you build is your layout and should do what you want. It should also incorporate the type of scenery that you enjoy watching your trains run through. Do not be too influenced by friendly advice or magazine articles. When you build it you have to live with it and like it. More importantly you have to watch your rolling stock run on it so there are some very important decisions you have to make before you start.

Layouts can be divided into three basic types

- Exhibition Layouts (e.g. Former NMRA layout "Sweetgrass")
- Scenic Layouts (e.g. Paul Morrants "Just Logging")
- Operational layouts (e.g. Gerry Hopkins "Great Falls Subdivision")

A layout can be a mixture of these but it is very difficult to build one layout that does all three well. For this reason you have to make a conscious decision as to what your layout is intended to achieve before you start.

The next decisions you have to make are

- Minimum curve radius
- Maximum grade
- Length of freight sidings
- Length of passing sidings
- Length of passenger train handling tracks (including stations)

This will be influenced by what you want to do with it, what you want to run on it and the size of your layout room. It is difficult to build a serious operational layout to run a fleet of articulated steam engines and DD40X diesel locos unless you have a huge area and virtually unlimited time and money. The point to make here is that a decision has to be made at the beginning, not halfway through when you start purchasing locos that are not going to suit what you have already built. This is often how modelers pull layouts apart six times before any real progress is made and often end up with a pile of timber or a plywood pacific. It can be very expensive because once you purchase

layout items and change your mind it usually creates a whole lot of bargains for your fellow modelers.

It is better to acquire a reasonable proportion of your rolling stock before you start building a serious layout. At least buy enough representatives of each type so you can do proper testing at each stage. You cannot just lay 60 points and 300 feet of track put in six gradients and expect everything to run correctly. It does not happen. You should be able to test a reasonable percentage of your rolling stock progressively as track is laid and wired. The same is true even for a small flat shelf layout where the track is tight and sidings have to be almost exact lengths.

The next most important decisions are

- DC or DCC
- Brand, Code and type of track
- Method of construction

DC or DCC should be taken into consideration when doing a track plan. DC layouts need special areas to isolate locos and sometimes a whole train. This effects how you design your point work as well as electrical blocks. If you have a huge collection of locos and like to watch them run around DC is probably a better choice. However you should provide large areas to store them on the layout so that each change of loco does not involve an 0-5-0 switching move. Storage areas should be able to electrically isolate locos.

DCC is more flexible but reverse loops should if possible be long enough to accommodate a whole train so that metal wheels do not confuse automatic reversers. Locos do not have to be stored in specific locations and the issues of switching with leading and trailing points can be addressed using an extra loco.

The code of track should suit the type of rolling stock. Old rolling stock often will not run on track smaller than Code 75. Newer rolling stock does not run all that well on Code 100 track particularly if you want to run sound equipped locos. Despite the arguments to the contrary there is DCC friendly track. Any disruption to the signal caused by the track will cause the loco to operate erratically. I have seen this happen on a large heavy loco with clean wheels, clean track and 20 wheels picking up current. Type of track matters. It is too late discovering this after you have spent huge amounts of money on the wrong track and built half a layout. It

really is a case that you have to get it right the first time. Planning the type of construction is really the easy part. There is no right or wrong method. It has to be strong, and it has to support the track and scenery. It may have to support your weight during construction. Type of materials used depends on the location. Basic rules are do not use chipboard or MDF where there is moisture such as a garage. If it is inside a bedroom use what you like. Do not use plywood for a backdrop unless it is very smooth furniture grade or you are going to totally cover it with paper. It will always look rough and soak up enormous amounts of paint. One of the simplest methods of building backdrops is to use pre-painted internal hollow core doors. You can put legs on the end where the frame timber is located and put them around the room before the rest of the layout construction is commenced. They can be joined at the back with a strip of 90mm by 20mm pine and a screw driven into the framed sections at the bottoms and tops of the doors every 100mm to form a strong tight joint. Joints can be filled with spackfiller which is easily sanded flat. You can buy these doors from around \$30 already undercoated and because they require no framing and very little paint they work out quite cheap. They also save huge amounts of time and are freestanding so they simplify layout construction.

If you want to finish it within your own lifetime it is desirable to pick a simple construction method and use a battery drill and chipboard screws. You can use any drill from 10 volts upward and preferably have a spare battery. You can buy a countersink drill bit that drills the hole and countersink section in one operation. If you have a lot of timber to cut a \$50 dropsaw will save hours and cut timber straight with minimum effort. It also allows you to make a jig that will cut lengths of timber exactly the same length with little effort. My favorite method now is to use simple box frames made from 20mm by 90mm pine. You can cover or partly cover these with plywood, MDF or pine planks. My curved sections are made from 9mm plywood. My decks and straight elevated track sections are made from pine planks.. Bunnings sell a range of these 20mm thick in cut lengths ranging in width from 70mm to 290mm wide. They are sold in the hardware section and are a fraction of the price you pay for the same timber by the metre in the timber section.

The three most important things to consider when building a layout are planning, planning and planning. If you really want to finish even a small layout you

must plan everything meticulously. My advice if you are going to have stations and industries is to buy the kits before you start the layout. As soon as you have a reasonably finished track plan buy all the kits for important industries and stations. Put the main walls of the buildings together with blue tack so they can be used as a guide to setting out track and scenery. If you are going to scratch build them or use master kits that take months to finish use plastic kits as temporary structures.

If you build your layout like a three dimensional picture you can save hundreds of hours work. My suggestion is put the backdrops in first. A plain blue board with clouds added before anything else is done. Paint or glue on detailed scenery backdrops. I have built numerous layouts both with and without scenic backdrops. I would never build one again without a detailed scenic backdrop. Build the frame and track bed then lay sections of track in place together with main walls of buildings. This will firstly give you an idea of how it will look and secondly show how the scenery can be constructed. One of the hardest things to do in model railroading is trying to scenic an area where there is an almost vertical section of scenery required up against the track. This method will prevent you building a layout with great running qualities that cannot be successfully scenicked.

Lighting should be put in as early as possible and always before scenery. Lighting changes the colors of the materials used to make the scenery so it must be done at the start. My favorite color for front panels and valances is black. I have tried all colors but this seems to give the best results because it frames your layout like a picture frame and does not compete with colors used in the scenery.

The most important rules are

- Have everything you need before starting each project on the layout
- Finish each major task before starting the next.
- Set up tasks so that progress can be made with small investments in time
- Make major tasks achievable within a set timeframe by using temporary structures if necessary
- Do not get sidelined and start building something such as a loco that will take six months to complete in the middle of a major task on the layout. Finish the layout task first.
- Do proper cost estimates to make sure you can afford to finish what you start.

Change of Gauge hits NSW again!!

Bob Best has a problem with short arms and his N Scale so he is moving to HO. On the door closing after his NMRA hosting 12/11/2011 the wreckers move in so ALL MUST GO!! If something on his layout has taken your eye, make an offer to hold it.

Pay on the day or before.

Contact Bob : 0407413049

Firstly make sure the parts are all there and work out the best place to start assembly. Look carefully at the plans. With most structures you start with the walls. Make sure you have everything ready to support what you are gluing before actually applying the glue. Do not cut pieces until you are ready to use them because the guide numbers are often on the piece of timber that will be left behind. Look at the kit and decide if it would be easier to paint individual parts or sub-assemblies before gluing

Decide on type of glue. I recommend Simply Glues Rapibond which is a fast setting PVA and Sellys 5 minute Araldite. Rapibond is good for most joints where you do not need full strength within 24 hours. Rapibond seems to be the best quick drying glue for wood available from local hobby shops. You can also use ordinary PVA wood glue where you have lots of time for joints to set. If the joint is going to be under a lot of pressure I use 5 minute Sellys Araldite in the small tubes which you can buy at the supermarket for about \$4. I use Sellys because it is predictable and the small tubes stay fresh. Mix Araldite on a small piece of cardboard with a toothpick and apply with needle applicator. You can make a needle applicator by pushing the blunt end of a needle into a small piece of balsa which then becomes a handle. Apply a minimal amount of glue with the needle and push pieces together carefully. Use a fresh toothpick to remove any unwanted glue that oozes from joints before it dries.

Do not assume that it does not need reinforcing just because it is a kit. Timber structures need to be reinforced both vertically and horizontally to prevent them warping as the humidity and temperature change. With wood structures you need to work out how to reinforce the structure before cutting out the windows and doors. Most of the structures I have built have the outer walls assembled first. Depending on the type of structure you may have to paint and/or install windows before the walls are glued together or the roof is fitted. When adding the reinforcing you have to leave enough room to fit windows and doors and also in the corners to join the walls.

There are two techniques which may help get really good results with fine wood laser kits. Firstly when you are cutting parts out of a flat section of wood hold it up to the light to see where the timber has to be cut to release the laser cut parts from the main piece of wood. Carefully cut the tabs in-between parts with a straight edge blade. Use a single side razor blade to get a thinner cleaner cut. These are very accurate kits. Generally you should avoid using a hobby knife to cut out parts. The bevel on the knife will bevel the timber and spoil the fit. If the parts are very thin and fragile you can colour them by rubbing dry coloured

chalk powder into the wood rather than painting. Paint containing solvents or water may warp delicate parts. Sand off any irregularities in the parts and test fit before gluing. Fine fingernail sanding sticks are ideal for this task.

I glue most structures on a flat sheet of thick glass that the glue will not stick to and use a square to make sure the corners are at right angles. I also use very heavy small machined steel blocks to hold side of buildings in place while glue dries. This ensures walls are vertical and the square ensures walls are square. If the basic structure is square and the walls are vertical the rest of the project is all downhill

You can use a minimal amount of rapibond on the actual joins and later reinforce the building on the inside with 5 minute Araldite where it cannot be seen. In most cases it may be preferable to assemble the walls of buildings and airbrush them before fitting windows doors and roofs.

Unless you are modelling dust and decay by staining timber it is generally better to airbrush as much as you can. Tamiya paint works very well on fine timber if airbrushed. Use the Tamiya or Simply Glues Y6B thinner to get the best finish

These are highly detailed models and generally need fine smoothly applied paint to look their best. You can airbrush small parts by using bluetack to hold them to a board. Do not paint windows and doors with a brush unless you have to. Many such as Grantline are very fine and the paint is too thick. Airbrushed Tamiya is thin and great for windows and doors.



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VISA

MASTERCARD

Santa Fe & Southern Pacific

My N Scale Empire by Doug Cook

Photos by Geoff Home

First a little history.

I have been involved in N Scale since the very early days from around about 1966. From then to now I have seen an incredible improvement in the quality, detail and the operating ability of the equipment available to today's modellers.

The Santa Fe and Southern Pacific is a freelance layout and is my very loose interpretation of the west and mid-west of the United States and is set in the period between 1980 and 1996.

It is a linear walk around layout with a single track main line of approximately 182 feet in length with 7 crossing loops which have minimum lengths of 6 ft 6 in. The majority of the motive power used are of Santa Fe prototype and the majority of the towns and locations are named after relatives and good friends.

I started building the layout in the early nineteen eighties and occupying an area roughly 9 ft x 12 ft and based on plan number 82 in the Kalmbach book of 101 track plans. In the intervening years since, the area has twice been extended and the layout extended four times and has reached the point where there is nothing of the original layout in existence. The layout now occupies an area of 25 ft x 16 ft.

The baseboard for approximately 90% of the layout is constructed from 1/2" Caneite on top of 1/2" plywood and supported by standard L girders which are themselves supported by 2 x 1 wooden brackets cantilevered off the wall meaning that there are no legs to support the layout. The rest of the layout is made of 1/2" caneite on top of 1/2" chipboard supported by a box frame made of wood and attached to the wall by metal L brackets.

The track plan for the layout now is a combination of many pieces picked from studying hundreds and hundreds of track plans in swags of model railroading magazines over many years. I have incorporated into the track plan plenty of industries for switching which is one aspect of operations that I really enjoy. I have been extremely lucky with my track plan because when I finally settled on the plan, I had no idea of operations let alone operating the layout with a group of like minded modellers, but when I decided to go down this path the plan met most of the criteria for operations.

The minimum radius used for the curves is 12 inches but is used in only a couple of locations, all of the

other curves are made from the largest radii that can be accommodated in that location. The majority of the track used is Atlas code 80 flex track and all of the turnouts are Peco also in code 80. The track is weathered using a mix of 50/50 rust and roof brown and applied with a 00 brush. The main line is ballasted with a 50/50 of Woodland Scenics fine buff and grey ballast. The sidings are ballasted with Woodland Scenics fine cinders or dark grey or a mixture of both and all ballast is held in place with a 50/50 mix of PVA glue and water and a few drops of dish washing detergent added to the mix.

The scenery is made from using the usual methods, ie – hard shell with casting plaster, rock moulds and hand carving which is then coloured with washes of cheap earth coloured acrylic paint. The ground cover used is mainly Woodland Scenics but I also use very fine gravel and dirt that I have picked up at various locations in my travels around the state. The ground cover is held in place by the same mixture that I use to hold the ballast in place. Trees are a mixture of home made and commercial items. Structures are a combination of straight kits, kit bashed (which I really like doing) and if I cannot find an appropriate kit for my needs I will scratch build the building using what ever materials will do the job. The backdrop is the very handy work of my good friend and fellow modeller Grant Hunt, who also is the brains behind the development and refining of the car card system which we use for operations on the layout.

Now to the electrical system used to operate the layout. To the consternation of many and the constant banter of others, the layout is controlled by standard DC cab control with the electrical blocks controlled by rotary switches. I have four RCS (Radio Control Systems) radio throttles that can operate trains anywhere on the entire layout. There is a PowerLine radio throttle to operate the paper mill branch. There are three other tethered throttles which control separate yard locations. All of the turnouts are hand thrown except for five in Gard Yard which have point motors attached and are wired to a matrix so that the turnouts for individual tracks can be lined up simply by using one push button.

The locomotives used on the layout are a mixture of many manufacturers, namely, Kato, Atlas, Life Like, Intermountain and Athearn. The rolling stock used comes from a mix of companies namely, Atlas, Micro-



Trains, Intermountain, Red Caboose, LBF, Athearn, Exact Rail and BLMA.

In summary a few thoughts and a little friendly advice to fellow modellers who are contemplating the construction of a layout. When building the base board do a quality job and don't take any shortcuts (it is better to overbuild). With trackwork, take your time and check every joint as you go and make sure that everything is working correctly. Patience and care taken when laying track will pay big dividends in the future when operating the layout with no or very few de-railments.

None of the techniques or methods that I have used during the constructing and operating the layout is ground breaking or earth shattering new technology. They are just things that I have picked up over many

years of reading model railroad magazines, going to clinics at conventions, looking at other peoples layouts, talking to people and looking at how things are done in the real world. Don't be worried about having a go at something and maybe making a mistake, just remember that anyone who has not made a mistake has probably not made anything.

Model Railroading is just a hobby and what ever aspect of the hobby that you are involved in, you should be having fun so it's as simple as that. I sure know that I have had hours and years of fun in reaching this stage.

Happy model railroading all.





INTRODUCTION

Craig's crossing came from a need to be able to run trains at home. For some years now I had been restricted to running trains on club layouts or on our exhibition layout (Intercontinental) at exhibitions. As I was being transformed from an analogue operator to digital the new loco acquisitions were Digital with sound and I did want to run them at home.

What was needed was a simple layout, had to be double track and long enough so a reasonable train, an AD60 Garratt with twelve coal wagons, was not chasing its own guards van. Where in our humble home could one build a layout of this size as I felt an area of 4mts x 4 mtrs would be required.

Located under the pergola, in the back yard was a shrubbery, approximate area was 4mtrs x 3.5 mtrs, may just be big enough. Hold on this is a HO layout two problems arose – can you build a HO layout outdoors, in the Gold Coast – What does the Controller of land allocation and usage say about a model railway outside, considering most of the habitable area within the house was taken over with trains and the shrubbery was under here direct control. By earning Brownie points, begging, pleading and paying great homage to her she did relent and granted permission – as long as I did all the work. The first problem of running HO outdoors did take some in depth consideration. I could not recall this being highlighted as a popular set-up location for HO/OO, in Australia, with in the many articles I have read and layouts I have visited throughout the years. But, in England, I recalled articles in British Model Railway Magazines where this is not an uncommon occurrence. So if the Brits can do it – so can we.

DESIGN

The layout was designed on a CAD programme, mainly to ensure that the radii was not too small. The other advantage of CAD programmes is it tells you how much track would be required. Each loop was to take one pack of Flexi track. A lengthy passing loop for each track and 6 points (turnouts) was all that was required. I was reluctant to lay the track directly on the ground, getting a bit too old to bend over all the time. Elevate the track was the obvious solution.

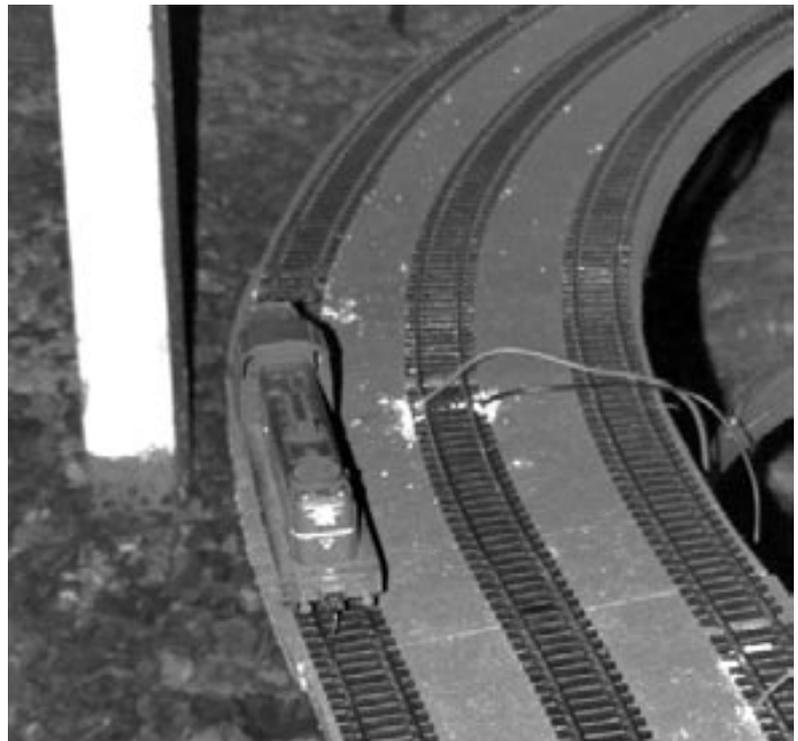
Structural 5 ply was chosen to mount the track onto. The track bed would be elevated about 600 mm off the ground, using 40mm x 40mm square section Aluminium, as legs. A special machined aluminium adaptor plate would be secured to the underside of the



ply and the aluminium square section legs would sit secure within the adaptor plate.

CONSTRUCTION

The ply was obtained in 1200 x 2400 sheets (about 3) and the track bed was marked out on the sheets then cut by jigsaw. Light sanding of the edges, two coats of fencing paint, as a sealer and three coats of an acrylic exterior house paint, to totally seal the timber, were applied. The timber was then laid onto the site, to see if it actually met up, it did. The location of the legs were then decided on, in all thirteen legs



were required. The special adaptor plate was then screw fixed to the underneath of the track bed, predominantly where sectors of the track bed joined. The legs were driven into the ground and levelled off

using string lines etc. The track bed was then fitted atop the legs.

TRACK

For economy and as I always use Peco track, two circuits of flexitrack were fixed to the track bed. Peco Medium Radius Points were inserted where required. The members of Miniature Train Club – Gold Coast helped immensely in the laying. The major change to tracklaying was that we decided to predrill the track sleepers on the outside of the track, on both sides, for track pins. This we felt would not only more securely fix the track to the track bed but would also keep the track work flat throughout its operational life.

WIRING

As it was decided that the track was to be controlled digitally a single Fig 8 cable was run under the track bed. As flexitrack was to be used twin cable connectors were fitted through the Fig 8 and secured to the underneath of the track bed and track feeds were taken to each piece of track, ensuring continuity of supply.

The four Passing Loop points were to be operated remotely through a Digitrax DS 64 Stationary Decoder. The cabling from each point motor was run back to the DS 64.

The DS 64 and all wiring terminate in a weatherproof box which has a Digitrax UR 90 LocoNet Infrared Receiver mounted on the cover panel.

To commence running all one has to do is position the Zephyr, connect the transformer, connect the Zephyr to the weatherproof box and all is go.

GENERAL

Craigs Crossing has now been operational for over a year and everything works, still. You can run HO/OO outdoors in Australia – even the Gold Coast.

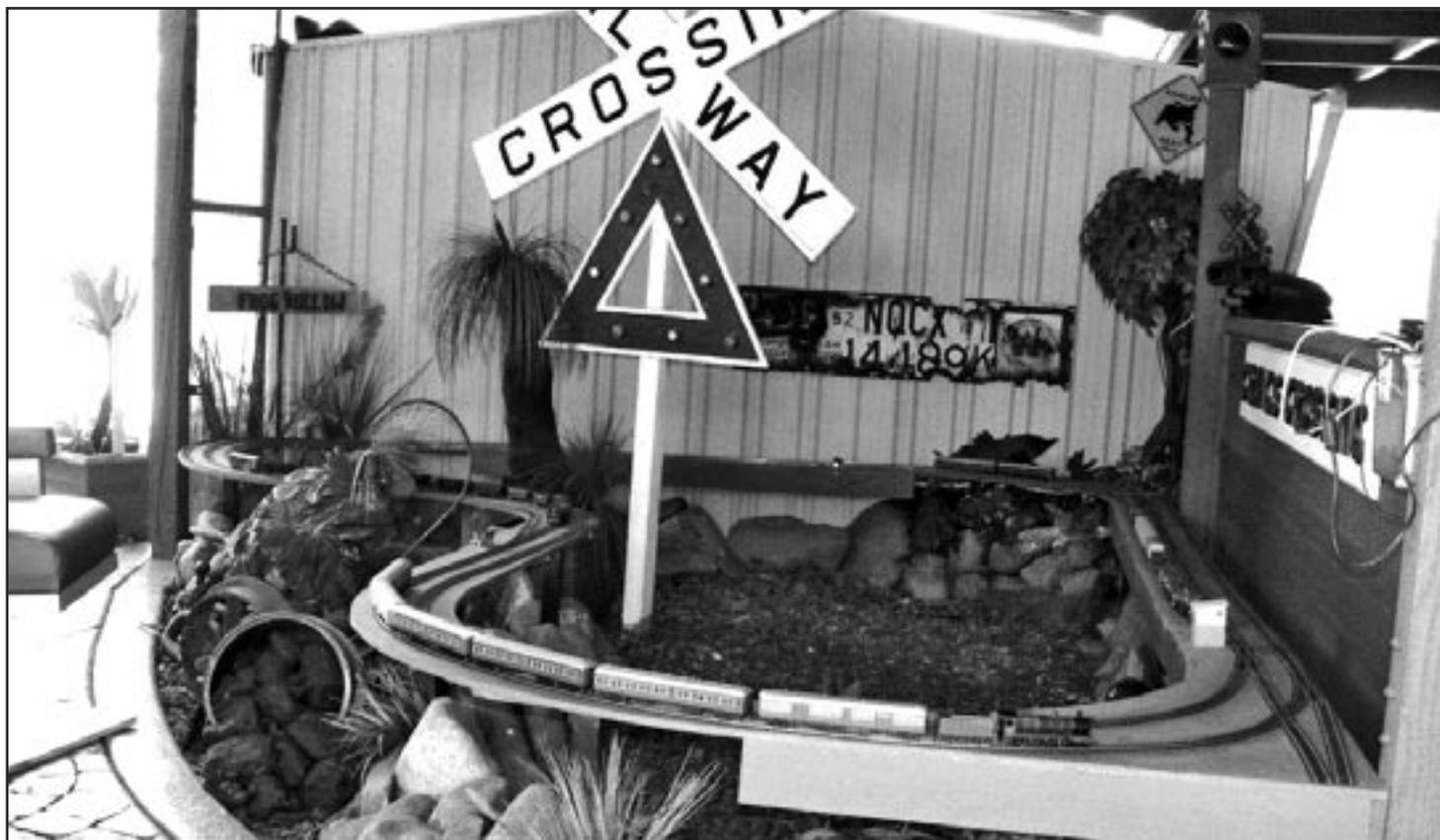
ACKNOWLEDGEMENTS

Naturally one is still paying homage to the Controller of land allocation and usage. To members of the Miniature Train Club-Gold Coast Inc. In particular for electrical – James Lampard, Martyn Jenkins and Den Candlin. For Trackwork – Phill Mooney, Les Corkett, Roc Wall and Rob Purdie.

Craig Thistlethwaite

Member – Miniature Train Club – Gold Coast Inc.

NMRA Member No. 700350-0A



I do not use car cards on my current layout but I have run several systems on previous layouts. I will probably go back to them for peddler freights when I complete a small extension I am currently working on. This article is very general and designed to take the confusion out of what they represent in regard to operation on MODEL railroads. They are not for all modelers or every layout but they can bring a new dimension to the hobby. This article is intended as an introduction to car cards and it may not accurately reflect practice on some prototype railroads because they vary to a large degree.

In the USA cars from one railroad may travel over several railroads before they reach their destination. They may even be reused to carry freight for other railroads before they eventually return home. The waybills and cards used by many model railroaders in the US actually represent the waybills that are used on most US railroads. A bill of lading is prepared when goods are received from the shipper at the freight depot. There are four copies of this document and one copy becomes the waybill for the freight. This travels with the freight when it is loaded into the car and should end up with the conductor of the train when the car is attached. It maybe held at times in a pocket on the side of the car.

On the NSW system the paperwork was different and would take a long time to describe. However the closest thing to car cards on the NSW system was the slips that were kept in the pockets on the sides of NSW wagons on peddler freights. These were handled in a similar way by the Guards on NSW freight trains. At one point in time NSW Guards carried a memo book which recorded details of loads delays and all details relevant to running the train. In NSW nearly all passenger and freight trains ran to a working timetable. Some US systems followed this system while on others only passenger trains ran to a timetable and all freight trains ran as extras. Block trains generally did not have waybills either in the US or Australia and ran as either timetable trains or extras.

This is a very brief article designed to take some of the confusion that seems to follow car cards. Most of the car cards used on NMRA layouts in this country are based on the commercial cards currently sold (although not designed) by Micromart in the USA. I have used these cards and they work well.

There are other more complex systems than the card and pockets we usually see locally. Several layouts back I ran a system I developed myself from a series of

Car Cards, Waybills and Switch lists

By Ken Scales MMR

The waybill slip inside the car card on model railroads represents the waybill used on the prototype. The car card identifies the type and number of the car and the railroad which owns it. The main system used for the waybills uses a small double sided card with a number in the top right hand corner. It identifies where the load is to go. There is a space for 4 locations on each card. The top and bottom locations are reversed so that the card is the right way up when you put it in the pocket on the car card. The cards should follow the cars around the layout and be kept in storage pocket near the current location of the car. When you deliver a car to a location you should turn the waybill to the next number on the top right hand corner before you put the card in the storage pocket.

On real railroads the waybill is clipped to a switch list kept by the conductor. Model railroads that use this system should also give operators a switch list. The driver is also given a train order if the train is an extra or even if he is operating from a timetable and it is a regular service. You should not clip a card with a loco number to a number of car cards point to a location and let the operator try and work out what happens. This would be like giving a real loco driver a list of the cars attached to his loco and pointing West. If you are using cards there should be a set of directions for the driver indicating where he has to travel and a set of instructions to indicate how cars are to be switched. On most model railroads this can simply be a small slip for both with or without cards.

articles in Model Railroader. I had several large engine depots and only a small number of switching locations. The card system used numbers on top of freight cars so that they could be seen when tightly packed in the yards. There were motive power cards kept at loco depots and operators had to work out how much horsepower was needed for their train before selecting motive power. Car cards also had speed restrictions for cars with older bogie types. Switchers could only pull several cars and passenger trains required passenger engines. There were situation cards for defective locos, derailments requiring breakdown cranes and so on.

The main thing to remember is that the card with the pocket represents the car and the slip inside represents the load and where it has to go. There should also a switch list giving instructions on how cars are to be switched and some form of train order or timetable indicating where the driver has to go.

Generally all operations in yards should be controlled by the yardmaster and all other movements usually require a direction from a dispatcher. It may require a simple set of employee rules to make all this work effectively.

This may sound like a lot of paperwork but most of it only has to be done once. Having a good operating session with a like minded group of model railroaders can be one of the most satisfying parts of the hobby. A well run operation enhanced by using car cards may take this to a whole new level.

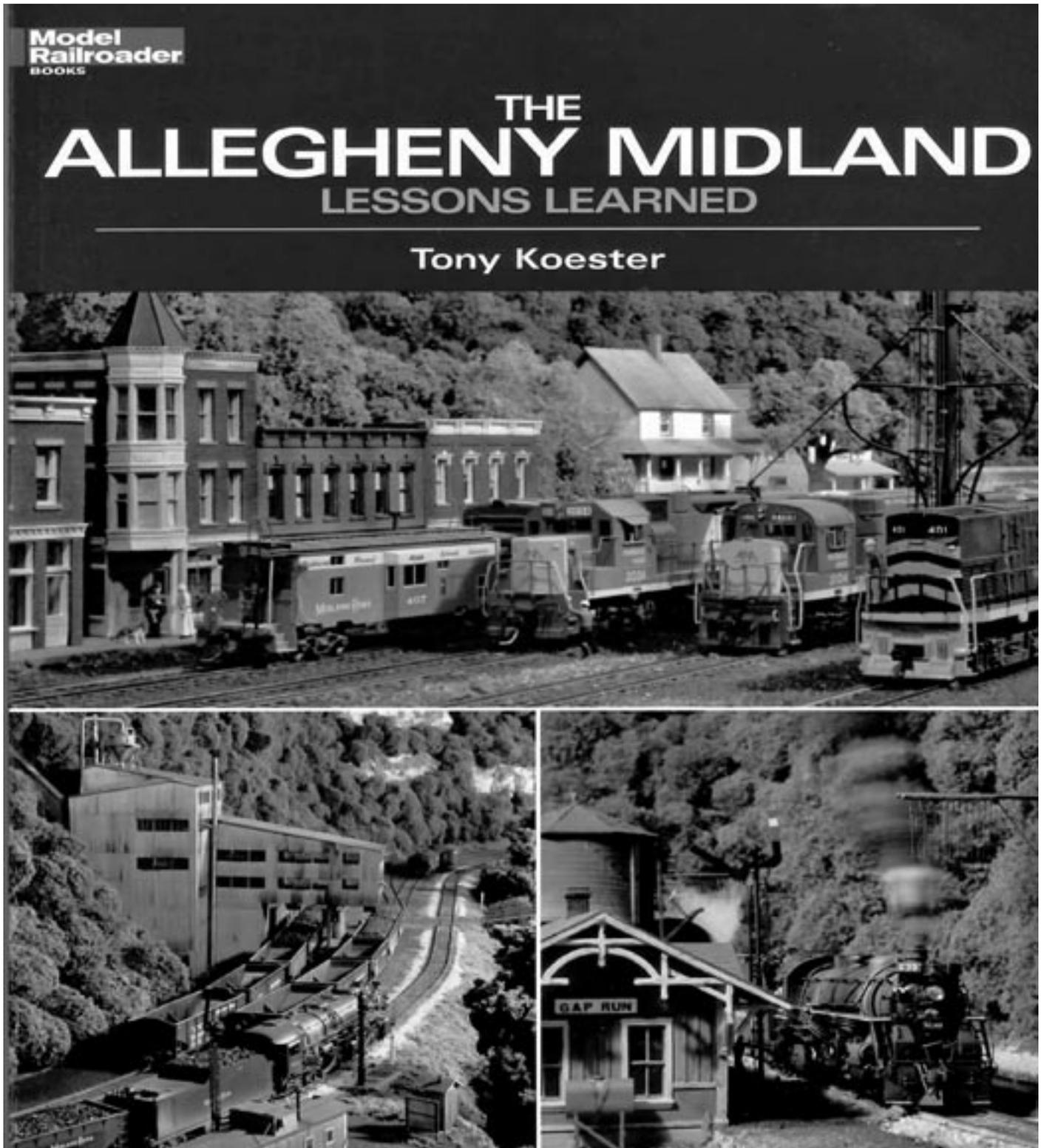
BOOK REVIEW

by David Howarth MMR

The ALLEGHENY MIDLAND

Lessons Learned

by Tony Koester



Published 2010 by Kalmbach Books

Price US\$21.95

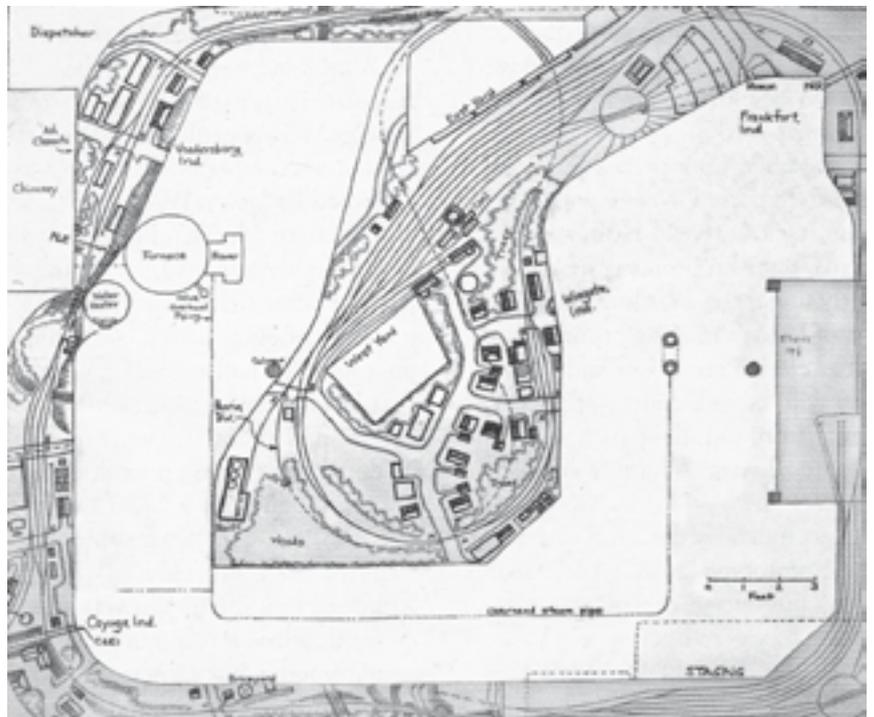
Kalmbach Books have through the years provided the railroad modeller with a fine collection of informative books. This 95 page book is no exception.

Tony Koester tells the story of a layout that he built, the Allegheny Midland, and the lessons he learned from its design and construction, during the 25 years he had the railroad in his basement. As the name implies the layout was designed as an Appalachian coal hauler, which will be appreciated by those who model Eastern Roads. The beauty of this book is that

Tony tells it “warts and all”. So if he made some mistakes he explains them, with the wish that the reader will not repeat these mistakes.

The book is in full colour, and has many photographs and diagrams, primarily of the layout both during construction and once completed. Most pages have more photos with good captions than text, which for me is good, as a “picture tells a thousand words”

Tony Koester takes his research very seriously, and he explains how he developed the concept for Allegheny Midland with field trips through the Appalachian coalfields. He has also used the ideas developed by others to assist during his planning phase. Detailed discussions on the design standards to be used on the layout are given, which prompts the modeller to consider similar issues when thinking about his or her new layout. Tony goes into the correct locomotive selection for the period being



modeled, as well as placing the layout in a plausible location in the “real world”

The chapter on making the track plan a reality on

bench work is a step by step illustration of the process of bench work construction, together with ideas on how to fit out your railroad room. This is followed by a chapter on the details of track laying and DCC wiring. The Author prompts the reader to think about the geology of the region being modeled to ensure the scenery adds to the plausibility of the layout’s location. The correct selection of structures reinforces this concept.

The book concludes with suggestions for operating layouts and future expansions of the layout if required.

This is an excellent book showing the process of layout construction from concept to reality. You might not agree with everything the Author proposes, but he at least makes you think about issues. I commend the book to you.

David Howarth MMR

3 May 2011

Scans from original book supplied by Kalmbach Books

Hobby

Lessons learned from a landmark model railroad

Tony Koester's HO scale Allegheny Midland was a revolutionary model railroad from its development in the early 1970s until its demise in 2000. A pioneer of freelanced prototype modeling, it was the subject of countless magazine articles and columns. In *The Allegheny Midland: Lessons Learned*, the author reviews the history of this inspirational and influential layout and discusses ideas and features that worked – and some that didn't. Koester explains how the Allegheny Midland came to be, which prototype railroads influenced its planning and design, and how the layout – and the hobby itself – evolved throughout the model railroad's 25 years of existence.

This book provides tips on:

- Choosing an era for your layout
- Fitting a model railroad into the real world
- Providing sufficient staging tracks
- Creating believable locomotive rosters
- Realistically operating a model railroad
- Adding “signature” scenes and structures

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Australasian Divisional Reports

Division 2 ACT

Our November meeting was hosted by David O'Hearn and his theme was to tell us all about his experiences at the NMRA Convention in Hartford, Connecticut. He had had some doubts about the value but once he got there, he was most impressed and is now saving up to go the another one. At the Convention in Hartford, David met experts in many fields amongst modellers and dealers, he saw layouts, attended clinics, attended a train show (full of useful trade stands), and grabbed a few bargains. A highlight was a layout tour of George Sellios' fabled Franklin & South Manchester. David also showed us a commercial for handling plywood tht's definitely worth another look – see www.youtube.com/watch?v=TwC7zJrzSw8.

Stephen O'Brien hosted our final meeting of the year. Rob Nesbit talked about all the kits he has on his shelves and has yet to build. However, he gave us all pause for thought when he told us that whenever he builds one of these kits, the odds are London to a brick that a beautifully detailed Ready-to-Run version will be announced within days (or at least weeks)! I think most of us are probably in a similar situation—I know I am. John Gillies showed us a pair of Athearn SD40-2s, to show us the difference in detail and quality between an old "blue box" model and one of today's, which compared very favourably with a super-detailed "blue box" version by Stephen. Stephen's theme was his progress on building his switching layout, getting help from the books by Lance Mindheim.

2011 started well with our first meeting at John Prattis' home. He showed us his new shed where he will create his model railroading magnum opus. While he still has a long way to go, the shed is coming on well, air conditioned (when John can find the controller) and with a lot of the insulation now fitted. John's theme for the day was his visit to the Giant's Causeway in Ireland and the pictures he took of the narrow gauge railway there. Unfortunately, there was only one locomotive to be seen, so John made up for that by photographing that one from almost every possible angle. However we all noticed that he failed to get a shot from underneath.

Our February meeting at Malcolm Risby's place attracted the biggest crowd since our mighty record of 25 at Cootamundra 6 years ago - no less than 23 turned up. Mal's theme for the day was his visit to a variety of layouts following a model railroading Convention in Houston last year, including layouts

of ...Craig Raymond, Gil Freitag, Gordon Bliss and Jason Smith. All of them were fascinating in their superb craftsmanship and detail and they were all worthy showpieces for the Convention. At least one of them has been featured in Great Model Railroads.

A real pleasure for me as Div. Supt. was to present some awards, as follows: Jess Brisbane – Association Volunteer, John Geremin – Model Railroad Engineer, Electrical, David Low – Master Builder, Scenery AND Master Builder, Prototype Models, and finally John Prattis – Association Volunteer.

A cosy gathering of 9 (including two cats) fronted up at Jess Brisbane's on 19 March. John Prattis stated that he has been investigating the possibility of having Gerry Hopkins visit us for a weekend to perform some judging and assessing of various members modelling efforts. This would be a very welcome event, especially now that several members are working hard towards various Achievement Program awards. Stephe Jitts has several structures and rolling stock ready for judging. He is prepared to offer Gerry Hopkins accommodation if Gerry would like to come down from Sydney for a day or two at his convenience to inspect Stephe's models. No commitment from Gerry yet, however it is currently under his consideration. Possibly other ACT members may have models ready to be judged and may wish to take advantage of such a visit. Portable models could be taken to Stephe's place at Yass while non-portable models (eg layouts ready for Golden Spike Award) could be visited by Gerry. Jess Brisbane and Wal Pywell have layouts nearing that stage.

A dozen showed up at the Pywell residence for our April meeting and it was with great delight that Tony Payne appeared, fighting fit after his saga with heart problems, an allergic reaction to the hospital antiseptic chlorhexidine and a hospital caused infection. Once again, I was delighted to be able to present some awards, as follows: Stephe Jitts – Golden Spike and Model Railroad Engineer, Electrical an then Ross Balderson – Golden Spike, Master Builder, Structures, Master Builder, Prototype Models and Master Builder, Scenery. Ross' awards come largely from his incredible N scale model of Sydney Central station, now on display in Central. Wal, our host, then gave us a discourse on how he controls his layout's points and signals, all by relatively simple electrical logic circuits. This led to a hearty debate on the pros and cons of this method versus several other methods used by members present.

Division 3 Victoria / Tasmania

General

Your reporter has been absent quite a lot his year, enjoying working in a number of Pacific Island Countries. He has not been available for the April, May and June meetings, but hopes to resume reporting in the 2nd half of the year. All the meetings have been quite enjoyable and a wonderful opportunity for like minded souls to share in the joys of model railways. The Sandown Exhibition, The Narrow Gauge Convention in Brisbane, and Hobson's Bay exhibition in Melbourne have finished at the time of writing. Your reporter enjoyed the Hobson Bay show, and in particular the Nowa layout in N-scale which had a replica of the trestle bridge and terminus. Those interested in Australian outline or meeting lots of vendors, Hobson's bay is a must.

Grant, as always, kept the formalities to a minimum, reminding us of up and coming shows and events, and importantly, that Division 3 will host the NMRA Victorian Convention on the 8-9 October 2011 at Carwatha College, Noble Park, Victoria. We have received advice that there will be another Southern Forest Narrow Gauge Meet scheduled for Sunday 18th March 2012 to be held in the Gemco Theatre, Emerald, Victoria. An inspection of the Belgrave workshops and a dinner train is planned for the Saturday. The next Australian Narrow Gauge Convention will be held in Melbourne in 2013. Grant finished off with thank you plaques presented to all our hosts.

December 2010

Twenty-seven members and guests attended the meeting at the home of Grant McAdam, our illustrious Superintendent. Believe it or not, Grant does have a layout at home; Pelican Bay, a shunting layout. In addition a young Lucas Woodward brought along his layout with Thomas and friends in a plastic version of a Brio style track-plan providing guests with two layouts to admire; one for the very young and one for the young at heart,.

Members often bring their spouses and partners to Grant's Christmas meeting, with the drawcard being Grant's exceptionally fine array of sweets including his infamous muffins. In the autumn 2011 edition of Mainline (Vol 28 No.1) there was a photo essay, in lieu of a report, for the December 2010 meeting.

January 2011 – There was no meeting

February 2011

Fourteen members and guest arrived at the home of Paul & Kath Ritchie located in the City of Ballarat, west of Melbourne, and enjoyed a warm and pleasant

day. Paul models USA mainline and industrial railways in S and HO scales, and is an avid scratch and kit builder. His new favourite toy is a Broadway Limited class GS-4 in Southern Pacific livery. This is a streamlined Northern (4-8-4) type locomotive. The prototype was built by the Lima Locomotive works, (ref: Wikipedia – 'Southern Pacific class GS-4').

For those requiring N-scale or HOn30 motorised chassis, KATO Portram motors are available as spare parts from dealers in Japan. Rod Hutchinson had one on display which may prove useful for those seeking a very tiny chassis.

As always reading material was in abundance and models for display included;

Laurie Green – "Harry's Shop" scratch built in 1/24 scale;

Peter MacDonald – 00n3 Isle of Man Coaches;

Rod Hutchinson - HO Garage laser cut by Banta, HOn30 link & pin couplers by Modellwagen Spezialkrafte of Japan, N-scale Portram Power Bogie (#14802D1G) by Kato;

Paul Ritchie – Wild West Mine and Mill (HO & S), Broadway Ltd (HO) GS-4 locomotive.

March 2011

A pleasant day following a wet night saw eight members and guests attended the home of Graeme & Sue Taylor at Chirnside Park, east of Melbourne. This venue was a last minute change and this may have contributed to the low numbers. Graeme is developing a mainline and logging layout in HO, within a purpose built loft in his house. The layout is at mock-up stage.

Grant McAdam – O scale Queensland Cottage, scratch built;

Geoff Truman – BGB HO VR J class kit (in bits)

Laurie Green – HO scale pre-production station and outbuildings card kits from Outback Models.

Rod Hutchinson,

Mooroolbark, Victoria.



2011 Rod Hutchinson I



2011 Rod Hutchinson Photo



2011 Rod Hutchinson Photo



Division 4 Western Australia

January meeting

The meeting was held at AMRA WA Branch's Club rooms. Eight members and one visitor made the trek out to Bayswater. We were able to see the progress on AMRA WA Branch's exhibition layouts for the 2011 June Model Railway Exhibition. Of special interest was the U drive layout featuring early 1960's Triang TT rolling stock.

Frank showed us progress on his current projects and how his exhibition layout for this year's June Model Railway Exhibition is progressing. Alan showed us the "How To" railway modelling books he has recently purchased. Rod showed us how he improved the appearance of some gondolas by adding loads



that ballasted the models up to the RP20.1 weight.

Members then had the pleasure of running their trains on AMRA's layouts.

February meeting

Effectively the February Division Four meeting spanned the whole week end. Our Northern Territory member Martin Canteros

Paz was able to visit Perth for the several days. Division members showed Martin our layouts, Perth's hobby shops and prototype railway sights.

The formal meeting was held on the Sunday at Peter Scarfe's. Six members attended. Peter Cameron was welcomed to our group. The division members' club shirt to be worn on outings and at exhibitions was agreed on; the cost of the shirts would be borne by individual members.

March meeting

The formal meeting was held on the Sunday at Garth Caesar's. Six members attended and presented their latest acquisitions and layout progress reports.

Members were able to inspect the progress of Garth's garden layout since our last visit. We were very impressed by the curved wooden trestle, the huge (compared to our HO locos) Mikado, the size of the existing system and the plans for its future expansion. Garth acknowledged Frank's assistance in the construction of the trestle.

April Meeting

The April 2011 division four meeting was held on



the 25th of April. The long Easter/ANZAC day break meant many regular meeting attendees were unable to attend. On a beautiful autumn afternoon we managed three members, our Divisional Superintendent Alan Burrough, Peter Scarfe and host Rod Tonkin.

Our major discussion was manning our display at the upcoming AMRA Model Railway Exhibition. The decision reluctantly was made to defer exhibiting Rod's Free-Mo modules until next year's exhibition due to a lack of members able to man the exhibit over the three day exhibition.

Peter displayed the cast plaster fishing boats he has purchased for a maritime scene on his layout, the parts he has bought to detail this scene and the plans for the all timber truss bridge kit he is building for his layout. Alan offered a brochure showing the digital gradient meter he had purchased. Rod presented a book on the history of Lionel trains and some British Railways rolling stock kits he has been building as part of his recuperation from his operation. Rod indicated he is not crossing over to the dark side; his reason for building British outline kits was there weren't any American ones readily available.

We were able to inspect Rod's partially built Free-mo modules. He will give an in-depth presentation on Free-mo modules at a meeting later in the year. His lovely wife Pauline kept us well supplied with tea, coffee, hot chocolate and muffins through the afternoon. Members were delighted to see Rod's progress since his op and wished him a continued speedy recovery.

Division 6 South Australia

April Meeting

The division gathered at Ron Solly's residence at Evanston Gardens for its April meeting. Members eagerly await their visit to Ron's to see whether there is new layout, or merely whether there are major or minor changes to the old. Just who was that fellow outside the carport with the bookies bag and stand?

Unlike previous years nothing too drastic with just a new peninsula added.

Ron's layout, the Deviant and Submissive...er sorry the Devan and Summerset Railway is a British OO scale layout based on the GWR/WR region of the UK. It features handmade points and runs flawlessly.

The Divisional Superintendent welcomed our latest member, Derek Stubbs, to the organisation and then updated the members with the Muskrat Ramble

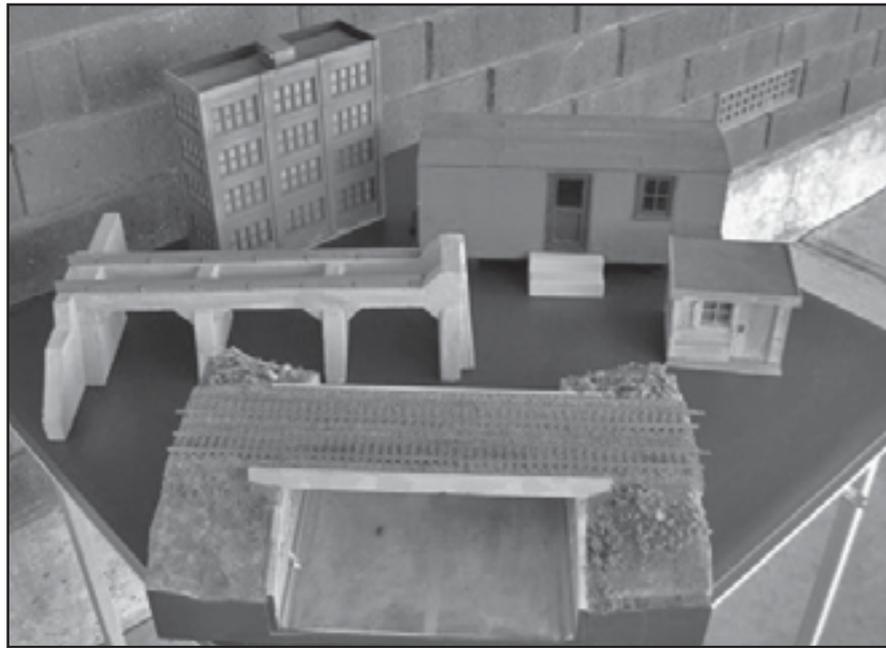
outcome. Considerable discussion followed about the matter.

This was followed by Ray Brownbill acting as the exhibition manager outlining to the meeting our participation in the forthcoming Adelaide Exhibition.

We will continue to build the modules at the exhibition which was very popular last year. This year will feature a corner module. There was discussion about publicity material to attract new members however; most members felt the object was to provide information about modelling rather than being a straight out recruitment drive. Ray invited members to indicate their willingness to work on the stand by completing the necessary paper work.

At the closing of the "formal" part of the meeting the Divisional Superintendent congratulated Bev

Bevan on her attainment of a Bachelor of Nursing and her subsequent registration as a RN. The members



warmly congratulated her with an around of applause.

The members then adjourned to Ron's railway room to enjoy the refreshments provided by Carole, and to mingle whilst watching trains run flawlessly. A number members were noted taking photographs to ensure they can capture history while it lasts.

The photo is of scratchbuilt buildings by Div 6 member Scott Taylor & an examined by AP Chair Div 6 Ray Brownbill today towards Scotts' AP certificate. Photo taken by myself at the Div 6 meeting held today - Sat April 2.

HO Scale Double track road Overpass; G scale Coal dump for Coal Merchant, HO scale Warehouse low relief, G Scale old Box car converted to ways and works office, and small yard office.

Division 7 NSW

February Meeting

Saturday the 12th dawned cloudy and threatening but 61 members and visitors braved the elements and visited Warren Wormald's layout at Regentville near Penrith. Warren is a New York Central modeller and his layout is in an early stage of construction, but he had trains running.

Gerry Hopkins gave an excellent clinic on the use, handling and soldering of very small LEDs. Because the tiny size of LEDs makes it hard to see what is going on in a clinic situation, he used large pieces of MDF, cut to the shape of the rear of a loco tender to show onlookers what he was doing on the bench. He used similarly sized mock-up LEDs to show what he was doing while he actually fitted LEDs on the workbench.

David Howarth recently completed the requirements for Master Model Railroader and was presented with his MMR certificate. A big congratulation to David.

A number of members brought along Show & Tell items, but the heavens opened and it rained solidly, so they didn't get the chance to talk about them. Instead, we partook of a fine afternoon tea presented by Warren's sister, Elaine, helped by the ladies. In particular, thanks to Natalie Oliver for making lots of sandwiches.

Thanks Warren for an enjoyable afternoon.

Erik Bennett

March Meeting

Doug Cook's N-scale layout started life over 26 years ago and is about 75% finished although there is work done on just about all sections of the layout. Doug originally built a one foot shelf section along one wall of a closed-in room under the house and learned the layout ropes. Then, with a focus on well laid track and ballast, he has expanded the shelf concept to produce a single track layout with 7 major crossing loops. The layout is of L-girder construction and stretches 185' around the walls and around several of the house piers. The 75% completed portion is finished to a high standard of scenery and industry.

On the day, long Santa Fe trains (with a smattering of Southern Pacific) crawled smoothly along the DC track and you could tell that Doug's investment in well laid track has paid off. Doug and his mates have operating sessions about once a month, resulting in the Chief Dispatcher AP award for Doug, who is heading for his MMR. As well as Chief Dispatcher, he has Electrical, and Civil Engineer and is working on his Scenery award.

Fifty five members and visitors attended on the day and a good time was had by all, both in the train room and in the backyard gas-bagging.

Thanks to Doug and Marlana for your hospitality and excellent afternoon tea.

Erik Bennett



April Meeting

In April we went to Castle Hill for a first visit to the home Kay & Eddie Gallier. The layout is called Victoria Mountain and is in HO. Part of the layout has been on display at exhibitions but is now part of the permanent home layout.

The original part of the layout is highly detailed and is “sort of” Mt Victoria in the Blue Mountains. The lighting for this section runs on a cycle of day/night with all buildings illuminated, the results of the automation are very effective.

The new part of the layout is more “inner” Sydney and terminates in Darling Harbour - complete with working mono rail. Plans are in place to continue the layout out to the



“tablelands” of NSW and have a complete rural scene.

The weather was great, the company sociable and the food very tasty and most importantly nobody ventured into the pool – voluntarily or by accident. Sowerby ran the “official” “part of the afternoon as our Div Super was looking for mummies under pyramids.

The layout can be seen at http://www.nmra.org.au/Layout_Tours/Gallier/index.html

Thanks to Eddie & Kay for

allowing us to visit their layout.

Gerry Hopkins MMR

Photos Geoff Horne



Div 8 Northern Rivers

It has been a very busy quarter for club members. There has been a great deal of activity amongst members working toward qualification for their OPSIG (Operational Special Interest) awards.

Over the last few months there have been several day long sessions at the club rooms. These sessions were split into morning and afternoon operating sessions. They have been very well supported by members who are eager to gain more knowledge and expertise in prototypical operations on Somerton their digital layout. The leading lights in this effort have been Chris Minahan and Damien George, but of course they are not able to do everything themselves, so there has been an eager group of members willing to master the arts of Train Controller/Dispatcher and Yard Master.

Needless to say the first couple of sessions could only be described as chaos, however this situation has changed dramatically to one where a great deal of confidence and blossoming expertise is becoming apparent in all areas of running. Many members have observed that it makes one realise just how difficult it must be to run the real thing effectively.

The last member's layout visit to Mike Peters on the 30th of May was utilised for an OPSIG day. Mike has a very impressive layout housed in a large shed and a stationary railway coach. It looks very authentic because Mike has dressed the shed up to look like a railway station. I think I would be correct in saying that the day surpassed all expectations for enjoyment and the gaining of operational knowledge.

Members are enjoying an organised programme of member layout visits and so far this year they have visited the personal layouts of Mike Bartlett, Noel Sawyer, Mike Peters and Chris Minahan. Over the next couple of months, visits will be made to Kevin Rasmussen and Graham Stallard. These visits reinforce the growing acknowledgement of the wealth of modelling expertise there is out there.

The club has been privileged to have a couple of demonstration visits from Gerry Hopkins in the last few months. In his last visit he concentrated on the fitting of DCC chips to locos and their programming and he also went on to show members just some of the amazing applications of digital technology in our hobby with the ability to fit tiny lights for various uses on locos and rolling stock. He also he showed some of the many other effects which can be fitted to improve the feeling of reality in the running and appearance of every sphere of railway modelling. All the members agree we are lucky to be able to avail ourselves of Gerry's skills and advice.

Work is continuing on the Somerton layout both on the operating areas and scenery and industrial areas. Chris, Damien and Martin have been concentrating on getting the signals and points working at 100 percent efficiency. There was for some time an ongoing problem with keeping the track properly clean, but after a lot of research and trial and error Martin appears to have solved the problem. Meanwhile Sterling and other members are working on building the industrial area and this will include an Oil Terminal, Flour Mill and Freight terminal. In fact the Freight Terminal is a remarkable model by Mike Peters of the Rail Freight depot which now houses the club rooms. Work is also continuing on the Coal Mine and Timber Mill areas and both these are very good examples of modelling thanks to Gordon and Kevin.

We have also been privileged to enjoy two visits from the Port Macquarie club members in recent months. It is always very good to get different opinions on how to solve mutual problems. And also there has been several new members join since Christmas and it bodes well for the clubs future to see young members coming into the hobby.

Ted Wheeler

Publicity Officer

Taiwan Sub Division

By Ivan Yih (Divisional Superintendent)

One of our members has scratchbuilt a HOe Narrow Gauge railcar recently. The railcar ran up the Ali mountain in the 1970's in the southern part of Taiwan.



This photo below was taken on recent group trip to Hualian TRA maintenance facility in the Eastern part of Taiwan in March.

The Eastern section of Taiwan has a lot of Diesel locomotives and railcars that have a long operating history and were built by GE in a Japanese railway factory in the 1950's.

Some of our members wanted to collect the railcar details to build HO scale models of them in the near future. This was the reason we made this trip in March.

In June we plan to visit the thermal power plant in Linkou. This power plant uses coal to generate power, but the bad news is that they want to terminate all railway transportation at the end of this year, so we want to collect as much information about the coal transportation and prepare to make a model of this branch line in the future.



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