

# MainLine

Winter 2005  
Volume 22 Number 2  
www.nmra.org.au

## TOM'S HOBBIES Huge July Warehouse Clearance Sale

### American Rolling Stock

#### Walthers Kits

Reg	Sale
Russell Snowplough	\$24.00 \$15.00
Double Door Auto Box Car	\$19.50 \$12.00
Bay Window Caboose	\$29.00 \$15.00
PS-2CD Covered Hopper	\$34.00 \$20.00
53' Thrall Gondola	\$24.00 \$15.00
36' Hopper Car	\$15.00 \$5.00
Scale Test Car	\$16.00 \$10.00
Slag Car	\$34.95 \$25.00
85' Amfleet Food Services	\$39.50 \$15.00
70' Cryogenic Reefer	\$19.50 \$10.00
Jordan Spreader	\$42.50 \$25.00
5 Unit All Purpose Spine Car	\$69.00 \$30.00
89' TOFC Flat Car	\$25.00 \$15.00
75' Depressed Center Flat	\$28.00 \$15.00
Steel Coke Cars 3 Pack	\$57.00 \$30.00
36' Corn Syrup Tank 3 Pack	\$35.00 \$15.00
Work Train #1 6 Car set	\$79.00 \$30.00
Work Train #2 5 Car set	\$79.00 \$30.00
100Ton Quad Hopper 6 Pack	\$130.00 \$70.00

#### Walthers Ready to Run

Reg	Sale
60' Material Car 2 Pack	\$89.00 \$40.00
61' Wood Chip Car 3 Pack	\$69.00 \$30.00
72' Center Beam Flat 3 Pack	\$69.00 \$30.00
45' Logging Flat Car 3 Pack	\$59.00 \$30.00
63' Pulpwood Car 3 Pack	\$49.00 \$30.00
86' HI-Cube Box Car	\$39.95 \$25.00
81' 4 Truck Depressed Flat	\$49.95 \$35.00
66' Heavy Duty 4 Truck Flat	\$49.95 \$35.00
PS 60' Auto Boxcar D Door	\$29.95 \$20.00
Greenville 7,000cf Woodchip	\$32.95 \$20.00
40' Ormer Aggregate Car	\$24.00 \$18.00
UTLX 16,000g Funnel Tank	\$33.00 \$25.00
Thrall Door Box Car	\$39.95 \$25.00
National 6200 Pellet Car	\$39.00 \$20.00
72' Center Beam Flat Car	\$31.00 \$20.00
60' Material Handling Car	\$49.00 \$20.00
63' Pulpwood Car	\$30.00 \$15.00
75' Autotrain Auto Carrier	\$49.50 \$30.00
33,000 Gallon LPG Tank Car	\$46.50 \$30.00
60' Gunderson Box 2 pack	\$99.00 \$50.00
UTLX 23,000g Tank 2 pack	\$79.00 \$50.00
Cushion Coil Car 2 pack	\$73.00 \$50.00
50' Smooth side Box 2pk	\$52.95 \$35.00
C-30-1 Wood Caboose 2pk	\$75.00 \$50.00
50' REA Express Reefer 2pk	\$96.50 \$65.00
25' Wood Caboose 2 pack	\$95.90 \$60.00
American Crane Powered	\$57.00 \$35.00
American Crane Unpowered	\$44.00 \$25.00
UTLX 23,000g Funnel Flow	\$38.00 \$25.00
50' Airside Hopper 2 pack	\$63.50 \$40.00
Greenville 100T Hopper 2pk	\$59.95 \$40.00
40' Ormer Aggregate 3pk	\$79.95 \$45.00
CA-1 Wood Caboose	\$39.95 \$25.00
C-30-1 Wood Caboose	\$39.95 \$25.00
Front Runner	\$18.00 \$10.00
50' REA Express Reefer	\$48.00 \$30.00
50' Exterior Post Box Car	\$25.00 \$15.00
50' Airside Covered Hopper	\$31.95 \$20.00
41' Ballast Hopper	\$19.00 \$10.00
PS 86' HI Cube Box Car 2pk	\$79.90 \$50.00
PS DD Commuter Cab Car	\$59.00 \$30.00
Amtrak Superliner Diner	\$55.00 \$30.00
85' Amfleet Food Services	\$39.95 \$20.00
85' Budd 10-6 Sleeper	\$67.00 \$35.00
85' Budd 24-8 Slumbercoach	\$69.00 \$35.00
85' Superliner Lounge Car	\$55.00 \$30.00
85' Superliner Transition	\$55.00 \$30.00
85' Budd Lounge	\$55.00 \$35.00
63' Budd RPO	\$69.00 \$35.00
PS STD 442 Sleeper	\$52.00 \$35.00
85' Amfleet Coach	\$39.00 \$20.00
85' Amfleet Viewliner	\$35.00 \$20.00
85' Superliner Coach/Bagg	\$55.00 \$30.00
73' Budd Baggage Car	\$67.00 \$35.00
PS 10-6 Sleeper	\$53.00 \$35.00
85' Budd Grill Diner	\$67.00 \$35.00
85' Budd Lounge	\$65.00 \$35.00
85' Budd 52 Seat Coach	\$69.00 \$35.00
85' Budd 46 Seat Coach	\$67.00 \$35.00
Train Line Caboose	\$25.00 \$12.00



Kato Kits

Reg	Sale
ACF 70Ton Covered Hopper 3pk	\$79.50 \$40.00
Corrugated Business Cars	\$65.00 \$50.00



Con Cor Kits

80' Material Handling cars 3pk	\$63.00 \$30.00
--------------------------------	-----------------



Proto 2000 Kits

Reg	Sale
50' Automobile Box Car	\$14.00 \$10.00
Mather 40' Single Deck Stock	\$14.00 \$10.00
8,000 Gallon Riveted Tank Car	\$16.50 \$10.00
52'6" Drop End Mill Gondola	\$14.00 \$10.00
4427 PS2-CD Covered Hopper	\$33.80 \$20.00
50Ton War Emergency Hopper	\$32.00 \$20.00
10,000 Gallon Type 21 Tank	\$20.00 \$10.00
Mather 40' Box Car	\$32.00 \$20.00



Proto 1000 Ready to Run

Reg	Sale
50' High Roof Box Car	\$12.50 \$10.00
60' Thrall Door Box Car	\$12.50 \$10.00



Accurail Kits

Reg	Sale
BF-Level Open Auto Rack	\$32.00 \$20.00
TRI-Level Open Auto Rack	\$32.00 \$20.00
89' Flat Car with 2 Trailers	\$49.00 \$30.00
USRA PBL Sheath Box Car	\$24.00 \$10.00
Canton Twin Hopper	\$21.95 \$10.00
40' AAR Steel Box Car	\$20.00 \$10.00
USRA 55 Ton Hopper	\$22.00 \$10.00
40' Wood Reefer	\$24.00 \$10.00
PS-1 Steel Box Car	\$22.00 \$10.00
ACF 3 Bay Centerflow Hopper	\$25.00 \$15.00
45' Highway Trailer	\$14.00 \$5.00

### BRANCHLINE TRAINS

Branchline Kits

Reg	Sale
50' PS1 Box Car	\$32.95 \$10.00
ACF Covered Hopper	\$32.95 \$10.00
40' PS1 Box Car	\$32.95 \$10.00
Chemical Tank Car	\$32.95 \$10.00
2 Bay Hopper	\$32.95 \$10.00
Single Dome Tank Car	\$32.95 \$10.00
50' SD Box Car	\$32.95 \$10.00
Airside Covered Hopper	\$32.95 \$10.00

### Branchline Blueprint Series Kits

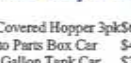
Reg	Sale
50' Single Door Box Car 4 Pack	\$95.00 \$50.00
40' AAR Box Car 7 Door 4pk	\$95.00 \$50.00
40' AAR Box Car 8 Door 4pk	\$95.00 \$50.00

### Rivarossi Ready to Run

Reg	Sale
Reefer Car	\$29.00 \$15.00
Gondola Car	\$19.00 \$10.00
Caboose	\$29.00 \$15.00
Boom Car	\$33.30 \$20.00
Metal Box	\$29.95 \$15.00
Tank car	\$20.00 \$10.00
Hopper Car	\$20.00 \$10.00

### Rivarossi Coaches Ready to Run

Reg	Sale
1920s Coach	\$49.50 \$25.00
1920s Sleeper	\$49.50 \$25.00
1920s Observation	\$49.50 \$25.00
1920s Diner	\$49.50 \$25.00
1920s Pullman	\$49.50 \$25.00
1920s Combine	\$49.50 \$25.00
1930s Diner	\$49.50 \$25.00
1930s SS Baggage	\$49.50 \$25.00
1930s Roomette	\$49.50 \$25.00
1930s Coach	\$49.50 \$25.00
1930s Tail Car	\$49.50 \$25.00
1930s Baggage	\$49.50 \$25.00
60' HWT Pass Car 4 car set	\$269.00 \$200.00
UP Smoothside 4 car set	\$229.00 \$180.00



Atlas Ready to Run

Reg	Sale
PS-2 2 Bay Covered Hopper 3pk	\$69.00 \$35.00
ACF 60' Auto Parts Box Car	\$45.00 \$35.00
ACF 33,000 Gallon Tank Car	\$29.95 \$20.00
ACF Pressure Center Flow	\$61.95 \$40.00
ACF 3 Bay Cylindrical Hopper	\$32.50 \$20.00
Extended Vision Caboose	\$39.50 \$25.00
2 Bay Offset side Hopper	\$23.50 \$15.00
Evans Double Plug Door Box	\$27.00 \$20.00
50' Precision Design Box Car	\$47.00 \$30.00
GSC Pulpwood Flat Car	\$37.00 \$20.00
STD Cupola Caboose	\$53.00 \$35.00
17,360 Gallon Tank Car	\$48.00 \$35.00



Inter Mountain Kits

Reg	Sale
ACF Type 27 8,000g Tank Car	\$29.00 \$10.00
10,000 Gallon Tank Car	\$29.00 \$10.00
60' Wood Deck Flat Car	\$36.00 \$25.00
PS-1 50' SD Box Car	\$28.00 \$10.00
12 Panel 40' Box Car	\$32.00 \$10.00
3 Bay Covered Hopper	\$26.00 \$10.00
Steel Sided Ice Bunker	\$29.00 \$10.00
4750cuft 3 Bay Covered Hopper	\$27.00 \$10.00

### Inter Mountain Ready to Run

Reg	Sale
4750 cu ft Ribbed Side Hopper	\$40.00 \$20.00
8,000 Gallon Tank Car	\$63.00 \$30.00
10,000 Gallon Tank Car	\$63.00 \$30.00
3 Bay Covered Hopper	\$63.00 \$30.00
USRA Composite Drop Gondola	\$61.50 \$30.00
60' PS-1 Box Car	\$66.50 \$30.00
ACF 4650 cu ft 3 Bay Hopper	\$63.00 \$30.00

### American Locomotives



Athem

GP40-2	\$50.00
C449-W	\$50.00
AMD103	\$50.00
GP50	\$50.00
GP38-2	\$50.00
GP60	\$50.00
GP35	\$50.00
U36C	\$50.00
SD45	\$50.00
SD40-2	\$50.00
SW7	\$50.00



Proto 2000 Super Sale

E6 A unit	\$80ea or 2 for \$150
E7 A unit	\$80ea or 2 for \$150
PA1	\$80ea or 2 for \$150
GP9PH2	\$100ea or 2 for \$180
GP7	\$100ea or 2 for \$180
SD60M	\$110ea or 2 for \$200
SW8-900/600	\$99ea or 2 for \$180
GP18	\$99ea or 2 for \$180
SD50	\$110ea or 2 for \$200
SD45	\$110ea or 2 for \$200
GP38-2	\$100ea or 2 for \$180
GP60	\$120ea or 2 for \$200
S1	\$99ea or 2 for \$180
SD9	\$120ea or 2 for \$200
BL2	\$80ea or 2 for \$140
SD7	\$110ea or 2 for \$190
GP7PH2	\$120ea or 2 for \$200
SD60	\$100ea or 2 for \$180
GP20	\$100ea or 2 for \$180
GP30	\$100ea or 2 for \$180



Atlas

C30-7	\$99.00
U33C	\$99.00
U36C	\$99.00
U23B	\$99.00
S1	\$99.00
GP7	\$120.00
AEM-7	\$150.00
Dash 8-40B DCC	\$199.00
GP38 DCC	\$199.00
GP40 DCC	\$199.00
SD35 DCC	\$199.00
SDP35 DCC	\$199.00



Kato

SD70MAC	\$219.00 \$189.00
GP35	\$229.00 \$150.00
SD40-2	\$189.00 \$150.00
SD38-2	\$195.00 \$180.00
SD45	\$239.00 \$150.00
RS-2	\$223.00 \$150.00
SD40-2	\$219.00 \$150.00

### Sound Corner



Broadway Limited Sound/DCC

SD40-2 DCC/Sound	\$455.00 \$399.00
NW2 DCC/Sound	\$295.00 \$280.00
SW7 DCC/Sound	\$295.00 \$280.00
E6 DCC/Sound	\$439.00 \$399.00
RSD15 DCC/Sound	\$420.00 \$399.00
Cab Forward DCC/Sound	\$780.00 \$699.00
MIB DCC/Sound	\$595.00 \$450.00
Ningara DCC/Sound	\$520.00 \$499.00



Atlas Sound/DCC

Dash 8-40CW DCC/Sound	\$385.00 \$370.00
SD24 DCC/Sound	\$395.00 \$380.00
SD26 SCC/Sound	\$395.00 \$380.00



Proto 2000 Sound/DCC

U28B DCC/Sound	\$420.00 \$399.00
USRA 2-8-2 DCC/Sound	\$520.00 \$499.00

### TOM'S HOBBIES 1001 VICTORIA ROAD WEST RYDE, 2114

Phone (02) 9809-0530  
Fax (02) 9809-0650  
Email [tomshobbys@pacific.net.au](mailto:tomshobbys@pacific.net.au)  
Web site Address  
[home.pacific.net.au/~tomshobbys](http://home.pacific.net.au/~tomshobbys)

Store Hours  
Mon-Fri 8.30am - 5.00pm  
Thursday 8.30am - 5.00pm  
Saturday 8.30am - 3.30pm

Mail Orders Welcome  
Bankcard, Visa, MasterCard,  
Money Order, Cheque  
Postage NSW, VIC, SA, QLD \$7.50  
TAS, WA, NT, \$8.50  
Postage Includes Received Delivery  
Insurance If required  
Up to \$300 value \$3,  
Then \$1. per \$100 value



(PRICES SUBJECT TO CHANGE WITHOUT NOTICE)

Items available until sold out  
On Sale for the month of  
JULY 2005 Only  
Sale Prices Apply To Old Stocks Only  
You Must Bring or Mention This Advert  
before Purchase to Receive these Specials  
Specials available to advert holders only



## Gerry(atric) Ramblings

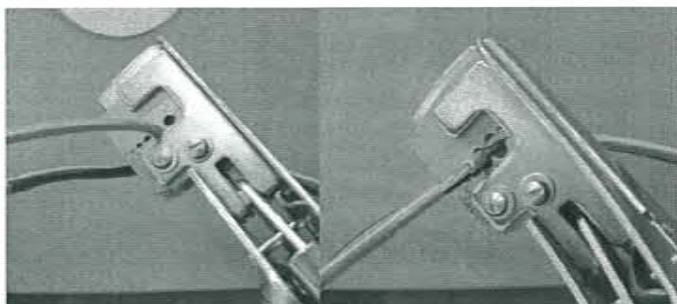
Well, as I write (?) this, it's a beautiful winter's day here on the Central Coast of NSW. The sun is shining and the temp outside is only 31C. Last weekend I had a few friends up for the NMRA monthly meeting, as it is two years since the last meeting there were a few questions on how and why I had done this or that. As a follow on, I thought I would use the questions as a starting point for this ramble.

**Bench work and scenery.** The bench work is mostly 2 x 3 from Hardware House – it is cheaper than 2x1 and 3x1. There are two screws per join but no glue – easier to make small changes. The majority of the scenery is a mix of card strip and gutter guard (\$2 for 15m in Woolies). These are glued in place with hot melt glue, the cheapest around. I get it from the local Chinese \$2 shop. I was asked why not a good quality glue that lasts longer, the answer, it only has to last a few days – until the plaster dries, then it can be left or torn out.

Over the frame is glued cheesecloth (or Chucks super wipes) then plaster mix is painted over the cloth. The plaster does not drip through the cloth – surface tension of the liquid.

**Tool Time.** I was asked how I did a few things and my explanation mentioned a few tools. I had to show or demonstrate the use of a few tools.

Wire strippers are shown in photo 1.



I use these to strip the wires that are in place, as shown in photo 2. The price, but not quality, varies around the shops. Example \$29.95 at Dickies, \$26.95 at Jaycar, \$9.95 at Big W, \$5.00 at "\$2 shop" and \$3.95 at Super Cheap Auto.

### FOR SALE

For medical reasons I must dispose of a large number of "0" Gauge items consisting of Slaters, 7H, Peco, Cooper Craft, Leeds Model Craft, Three Aitch, Bachmann "B" Set, goods and passenger stock. Three locos (one a Pannier Kit) Peco Track and points, (some new and some hardly used)

For list, send a stamped, self addressed bus' size envelope to  
**Mack.**

**3 Lawver Cres.  
Lake Munmorah  
NSW 2259**

**Nibbler (Photo 3)** is used for cutting square holes in plastic or metal. In my train room it is used for cutting the window and door openings in styrene walls – on the models. Just mark the outline of the window, make a hole big enough for the head of the tool and nibble out to the lines. The tool is \$7.95 in Dickies.



**Power Tools.** The main tool is a GMC 14.4 drill/driver. It cost \$69 and came with two batteries back in mid 2001. The batteries are now starting to loose a bit of umf over time, this is normal with nicads. I do have a Riobi that cost \$59 two years earlier, it came with one battery that has died. To replace the battery is \$69!

When I started the layout in mid 2001 I also bought a GMC bench saw and a Riobi compound saw. These are both still going strong.

**Track Cleaning.** The track gets a clean about once a year. The surface of the track has never been scratched or gouged by a track rubber so it does not collect or attract dirt.

I use a piece of 1/4" cork with a drop of CRC 2-26 on the surface and gently rub along the top of the rail. If somebody tells you that the track rubber does not scratch, you can test it yourself – go out to **their** car and remove that bit of bird dropping from the roof or that insect mark from the front.

CRC 2-26 is plastic safe but 3-26 is not. There are a number of web sites that have the safety data sheets for these products so don't take my word for it. **Gerry Hopkins MMR**

**John GEREMIN**, authorised BLI dealer in Aust.

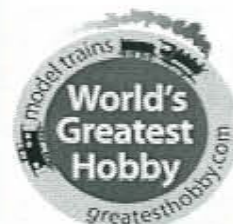
BLI with QSI SOUND. N & W class A, 2-6-6-4, \$650.  
PRR M1a or M1b now \$450, PRR Silver GG1, \$330.  
[special NMRA member prices]

Lionel HO DieCast, Challenger UP #3976 \$750.

Lionel HO DieCast, Challenger UP #3985 \$825.

Sunset BRASS, 2-8-0 PRR H8, \$495 (trade-in)

Phone/fax: 02 – 9758 5686 or 0427 10 20 60 or  
visit <http://home.iprimus.com.au/geremin/>  
and check BLI or TC-9P for current stocks and ordering info.



## CONTENTS

Winter 2005

Volume 22 Number 2

[www.nmra.org.au/mainline](http://www.nmra.org.au/mainline)

NMRA

21 YEARS IN

AUSTRALASIAN REGION.

### Feature Articles

- 2 Gerry(atric) Ramblings.
- 13 The 7th Narrow Gauge Convention.
- 16 Operations on the 'Milwaukee Road - Kansas City Subdivision'.
- 22 Feature Picture.
- 24 Concocting Conifers.
- 31 The Seventh Narrow Gauge Convention Albury.
- 35 DCC Decoders.

### Regular Articles

- 4 Division Meetings Schedule for 2005.
- 5 President's Report.
- 6 From the Editor.  
Vale: John O'Callaghan.
- 7 Meet the Member. (Ray Brownbill)
- 8 Region Roundup.
- 30 New Products.  
Exhibition Calendar.
- 40 Video Library Index.
- 41 New Member List.
- 42 Advertising Directory.
- 43 Region Directory.

### ON THIS COVER:

R. S. Smith and Sons Manufacturing Co, a beautifully scratch built factory by Geoff Nott seen here on his new Leigh Creek Modular Railroad.

Photo Gerry Hopkins

**CENTRE PICTURE SPREAD:** (Page 22 & 23)

Brute Horsepower awaiting dispatchers orders. Two Veranda Turbines No 71 and No 75 ready to depart the yard on Sowerby Smith's Layout.

Photo Sowerby Smith

*Our next issue will be available from September 10th 2005.*



# Schedule of Divisional Meetings for 2005

## Division 1 Queensland

Division Superintendent Glen Stevens.

For details of Queensland meetings and venue addresses, please contact Glenn Stevens.  
Meetings start at 1.30pm unless advised otherwise.

(07) 3207-2442

July 2nd.	Toowoomba Double Header Mark Ward "OMA Belt Lines" & DDMRC Running Day		
September 10th.	Ian Wellings.	38 Talara St,	Currimundi "Great Northern RR"
November 5th.	Graham Emery.	3 Tukkeri St,	Macleay Is "Union Pacific RR"
December 11th.	Division 1 Christmas Picnic.		

## Division 2 Canberra

Division Superintendent Viv Brice.

For details of Canberra meetings and venue addresses, please contact Viv Brice.

July 2nd.	John Bullen.
July 30th.	TBA.
August 27th.	TBA.
September 17 / 18th.	Convention.
September 24th.	John Gillies.
October 22nd.	Rob Anderson.
November 19th.	David Service.

## Division 3 Victoria

Division Superintendent Grant McAdam.

All meetings start 11.30am Sunday.

July 17th.	Barry Pate.	17 Nokuna Court,	Greensborough.	(03) 9434-3101
August 21st.	Bob Backway.	4 Tor Road,	Belgrave Heights.	(03) 9754-6502
September 18th.	Rod Hutchinson.	40 Erskine Ridge,	Mooroolbark.	(03) 9726-6187
October 9th.	Gavin Hince. (MMR)	25 Dwyer Street,	Clifton Hill.	(03) 9489-4527
November 13th.	John Dennis.	62 Owen Street,	Mitcham.	(03) 9874-1684
December 4th.	Grant M <sup>c</sup> Adam.	194 Booran Road,	Ormond.	(03) 9578-8685

## Division 6 South Australia

Division Superintendent Ron Solly.

Meetings held Saturdays 1.30pm Please advise the host on the Wednesday prior to the meeting if you are attending.

July 23rd.	Bob Bevan.	(08) 8349-5229
September 3rd.	Trevor Triplow.	(08) 8270-5507
November 12th.	Ray Brownbill.	(08) 8389-1045

## Division 7 New South Wales

Division Superintendent Phillip Anderson.

Sydney meetings organiser Divisional Superintendent Phillip Anderson (02) 9879-4307.  
Meetings start 2.00pm Saturday unless indicated otherwise.

July 16th.	Sowerby Smith.	174 Fullers Road,	Chatswood.	(02) 9411-5726
August 13th.	Mod Sig Group.	54 - 60 Roseberry Road,	Kellyville.	(02) 9871-4157
September 10th.	TBA.			
October 15th.	Bob Best.	34 Winnicoopa Road,	Blaxland.	(02) 4739-1953
November 12th.	John Baker.	54 - 60 Rosebery Road,	Kellyville.	(02) 9629-2349
December 10th.	Christmas Party.	Uniting Church,	Baulkham Hills.	



MainLine

Official Publication of the  
Australasian Region  
of the

## NATIONAL MODEL RAILROAD ASSOCIATION

Registered at Australia Post  
Publication No PP241613/00080

Editor / Publisher David Jupp  
Assistant John Saxon

### ARTICLE SUBMISSIONS:

*MainLine* welcomes articles, photographs, drawings, cartoons, letters to the editor and other related material as contributions to the mutual enjoyment of the hobby by the membership. Material should have wide appeal and preferably be sent by email or post to the editor. Articles may be submitted on either 3.5 inch floppy or CD in any Windows format. Preferably include hard copy of your contribution. Sharp photos, may be submitted for inclusion. Type written articles are also welcome. The NMRA accepts no responsibility for the accuracy of articles, which are published in good faith and at all times deemed the opinion of the author. Publication of any article shall be at the discretion of the editor.

The Editor MainLine  
90 Grange Road  
Glenhaven NSW 2156

editor@nmra.org.au

**ADVERTISING:** Rear page, full page, half and quarter page space is available at attractive rates. Contact the editor for information. Rates are for one year. Magazine is published quarterly. Advertising contained in the *MainLine* in no way constitutes endorsement or guarantee of product by the NMRA. The NMRA reserves the right to reject or refuse advertising for any reason and it is the responsibility of an accepted advertiser to comply with regulations associated with the Trade Practices Act.

Local Membership fee of \$55.00 includes a posted quarterly publication of *MainLine* Magazine. Additional Fee for US Scale Rails Magazine posted monthly \$45.00 All fees are payable in Australian Dollars to Denise Bennett, Membership Officer.

Please note that fees must be received by the 8th of the due month in order to maintain continuity of Scale Rails delivery.

Send address changes to  
Denise Bennett  
33 Kanook Avenue  
Bayview NSW 2104  
memberships@nmra.org.au  
(02 9997-7971)

Australasian Region  
National Model Railroad Association  
PO Box 382  
Forestville NSW 2087

www.nmra.org.au

© NMRA Australasian Region.

# President's Report

## President's Report to the 2004 AGM on 16 April 2005.

During 2004 several important Divisional milestones occurred:

- The ACT and NSW were made separate Divisions and a NSW Division Superintendent, John Baker was appointed. Phillip Anderson has now taken on this role from John.
- The South Australian Division under the leadership of Division Superintendent, Ron Solly, has again become active and increased its membership by around 300% from 8 to 26 members.
- The Northern Rivers Division was established based in the Coffs Harbour area with Ian Phemister as the Division Superintendent. This keen group has built a large modular layout and exhibited it several times in that area.

The advertisers help the Region by supporting the *MainLine* so please support them.



### Video and DVD Library

popular with members - continues to grow through funds from the Region and generous donations of tapes and DVDs by members and friends. Thank you to David Latham, our Region Librarian, who ensures that all the Divisions around Australia have access to the videos and DVD's.

**Region Website** and member email list, used by over two thirds of our members is an important communication and publicity tool. Thank you to Gerry Hopkins for maintaining the content of the website and Wayne Eagle for hosting the Region website.

**Achievement Program:** This continues to be well supported by members. Many of these awards have been for volunteer positions members have held in the Region, as well as awards for modelling categories. Well done members and thank you to Gerry Hopkins, Achievement Program Chairperson.

**Region Trustee:** Thanks to David North, for his work on the NMRA Board in America on behalf of all NMRA members and for also representing our Region's interests.

**The Australasian Region** functions well because of the members and partners who generously make available their homes and layouts for member meetings and members who volunteer their time and talents for the benefit of all of us. My thanks once again to my fellow Board members, the Division Superintendents and volunteers listed in the Region Directory at the back of the *Mainline* magazine, for their support during 2004.

**Region Convention** was held on the October long weekend in Sydney. This allowed interstate members the opportunity to visit the AMRA exhibition at Liverpool and attend the Region Convention. Thank you to the Convention Chairperson, Peter Jensen, the members who presented clinics and all who contributed and attended.

**Special Interest Groups - SIG's** - continue to fill an important role that allows members to come together to enjoy specific areas of interest eg the Narrow Gauge SIG and HO Module SIG. As part of the Region they have access to the Region public liability insurance and Region website.

**Membership** continued to grow during 2004. The year started with around 300 members and by years end was 334, a 10% increase. Well done to all members whose open and friendly attitude to newcomers and a willingness to share their knowledge encourages visitors to become members. Thank you to Toni Saxon, for looking after the membership administration.

**Mainline** - our Region publication - continued its high standard under the Editor, David Jupp. Thank you to the members who provide articles and reports.

Allan Garbutt





### From the Editor:

There is no doubt that winter is the perfect time to spend lots of hours working on the railroad. It's also a great time to catch up on reading your favourite magazines including I hope, MainLine. This is where the lecture begins.

Unfortunately, article contributions are few and far between and in order to give

a balanced and bulging magazine, that means a lot of research and articles from yours truly. Whilst this may accelerate my possible presentation of an AP Author award, I do not want this publication to be known as MainLine according to DJ. We all have ability to contribute something and your special way of making scenery or that hot tip, maybe just what someone else has been puzzling over for some time. Belonging to the NMRA is not just about what you want to get out of it. Remember, it is quite true that the more effort you put into something, the more you get back, particularly in satisfaction. This also, is true of NMRA membership. So please, I could do with some help. End of lecture. It is without doubt that Broadway Limited have changed mass produced models especially for HO scale since they

entered the scene just a few short years ago. Although there have been a few hiccups with delivery schedules and of late some frustrating QA problems, there is no doubt that their introduction of sound has almost progressed the modeller to now expect sound as a matter of course. So following in the footsteps of Oriental Brass Imports Chairman turned BLI, it is extremely interesting and pleasing that the President of Overland Brass Imports, Brian Marsh has announced 'Tower 55' his injected plastic model company. The list of 'first' locomotives is impressive and for those that love the UP, then I don't think you will be disappointed. Three unit turbines generally only have been available in brass and these are number 3 on the list for production, possibly by the end of 2005, and with sound too. Other locos proposed are the big power diesel modern fleet that Overland are synonymous with. Check out the web site at [www.tower55products.com](http://www.tower55products.com)

**In the recent Trustee election, David North was returned to the position now holding the title of Pacific District Director. This position will become the subject of another election next year. The new At-Large Worldwide Director position was won by Tony Koester. Congratulations to David and Tony.**

*David Jupp*

## VALE

### John O'Callaghan.

NMRA MEMBER, NEW ZEALAND DIVISION 5

John didn't just play trains. His model railways were always much more than just a collection of model engines, rolling stock, track and buildings. John was a skilled modeller who made sure that everything on his model railway was exactly right to create an almost perfect three dimensional miniature of a real American railroad.

Once John got into railway modelling, like everything he did, he did it well. He was always prepared to embrace new technology and was one of the first modellers in New Zealand to use Digital Control.

John was the Secretary of the Wainuiomata Model Railway Club in the late 70s and under John's direction, the club members built a modular layout used on meeting nights and also taken to various exhibitions and model railway conventions.

John drove the fund-raising and establishment for new Clubrooms, now the home of the Hutt Valley Model Railway Club. A few years ago, in recognition of John's services he was presented with Life Membership of the club, a well deserved honour.

John was a Rotarian and highly respected member of the business community. He was one of those folk who work quietly away in the background helping people and being very modest about his contribution; all while maintaining a great sense of humour.

In the family of model railway people John was held in very high regard. But John had another family first and foremost; to Marie and your family, our thoughts are with you all.

Thanks John O for the all that you did for our hobby and thanks for all the jokes.

Jeff Driver

## Meet the Member

Ray Brownbill, Forreston, Adelaide Hills, South Australia



Ray lives in Forreston in the Adelaide Hills, an hour drive north east of Adelaide, married with a teenage daughter.

In my early days my father had a Hornby Dublo 3 rail layout, and being a youngster of 3 or 4 years old, Hands Off was the order of the day. We lived in Glenhantly, a SE suburb of Melbourne and lived near the railway station. Glenhantly was one of the few places in Melbourne where the railway and tram actually crossed at road level, and I spent many of my younger days there in the signal box on the station.

As time went by, my parents moved to Ormond, next suburb to Glenhantly, and my father and myself started to do additions to his 8' x 5' layout. We then changed from Hornby to Marklin in the late 50's as my uncle had a Marklin layout. In the early sixties, with money from my paper round, I would head into the city to the Model Dockyard, to purchase new railway models. Mid 60's after starting work, I dabbled in 'O', 'N', then back to HO/Hon3 American.

I joined AMRA Victorian Branch in 1971 and exhibited my modular layout, the Wild Creek Railroad at several AMRA exhibitions in the mid 70's at Camberwell Civic Centre. Late 70's I became President of AMRA Vic Branch for a few years. Towards the end of 1978 I built a 19'x 24' room attached to my garage at started to construct my empire "Wild Creek Railroad". Many modelers over the next few years viewed my layout in construction

In 1981, I joined NMRA and in 83 I toured the US for just under 3 months staying with modelers, who I had exchanged passes with. While in the states I went to the NMRA National Convention in Winnipeg, and again meet many modelers who I still correspond with.

In 84, I moved to Adelaide and meet Gael, my wife to be. John Saxon wrote to me and asked if I would like to start a division in SA. I accepted and became Director for SA, WA and NT. I was living in the southern suburbs and wrote to the NMRA members and arranged a meeting of which 4 members turned

up. I this stage I did not have a layout and we just discussed the organization. After 4 years of director it was time to let someone else take over the reins.

In 1989 we moved to the hills, Adelaide Hills that is, and had another NMRA get together. In 1992 we moved onto the property we now have and started planning a new railroad room. This took some 8 years, and during this time I was modeling and painting on a portable table in the lounge on the cold nights.

2000 saw the 30'x 20' shed constructed, lined, insulated and the crew room carpeted. In 2001 the new layout was started, and many late nights as I started building my frame and laying track. Then in late 2002 I made the decision to go DCC, and elected to go Lenz Digital. The layout has now only a small section of track to be laid in the Wild Creek yard, [making 5 points at the present], and timetable sessions will be then initiated. The Wild Creek trestle from my Melbourne layout was again installed into a layout. Minimal scenery has been done and there will be concentrated effort during this winter.

2003 saw NMRA SA division reborn and I have helped Ron Solly to get the division going again, and has hosted several NMRA meetings in the last 2 years. Last year saw the President, Allan Garbutt and Trustee, David North visit with the Associations "Sweetgrass" layout for AMRE train show and were guests here in Forreston. I also had the privilege to venture to Sydney for the Convention and enjoyed myself, renewing acquaintances and viewing the Central coast layouts.

Wild Creek is a Class 2 railroad in the 1989/1990 eras. It is a bridging railroad in the Rockies between Salt Lake City and Sacramento, and has a branch to SP and another to ATSF. This allows me to run SP, Cotton Belt and ATSF locos. Shortly a web site will be constructed to show the world, the "Wild Creek Railroad"

Among my other interests, I am involved with the SA Country Fire Service as a Deputy Group Officer for our area, and also on the State Incident Management team. I have been sent interstate on a number of occasions and spent New Year 2001/2 in Sydney during the Christmas 2001 Fires. I was lucky enough to be our Regions representative to march for the SA CFS in the Sydney ticker-tape parade in 2002. My most recent deployment was to the Pt Lincoln fire early in January this year where I was the night time Incident Controller. Also I am growing just under 700 olive trees on our 23-acre property, shared with my daughter's horses.

So if you are coming to Adelaide, send an email and make a time to visit, you will be made most welcome.



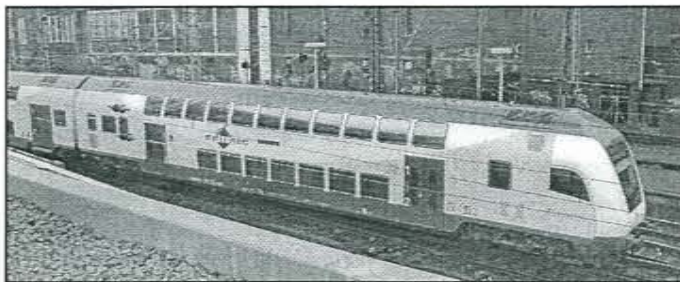
# Region Roundup

Division 1 Queensland Glenn Stevens

No reports available.

Division 2 Canberra Viv Brice

The ACT's *February* meeting was hosted by myself. At the end of 2004, I had spent two months in Hamburg on business and so my theme was some observations of German railways. Hamburg is in the north of Germany on the river Elbe and is Germany's second largest city, after Berlin, with 1.8 million people. It is a major port and transportation hub, with main transport lines leading north to Denmark and Scandinavia, north-east to Rostok and the Baltic coast, west to Bremen and the Netherlands, and south to the rest of Germany. My accommodation in Hamburg meant that I had to commute daily to the office on the S-Bahn (Schnell Bahn or suburban rail services) or the U-Bahn (Unter Bahn or underground railway, although for the journey's that I regularly took, the S-Bahn spent more time underground than the U-Bahn). These trains were clean, quick, frequent and usually well-filled. My main impressions of the inter-city trains in all their various forms was that they were also frequent, clean and well-filled. I was not prepared to see so many trains in push-pull mode, with a driving car at one end and a locomotive at the other. This happened on the R-Bahn (Regional Bahn or local passenger services) and on many inter-city trains. There were also a large number of double deck trains on both local and inter-city service, but none on the Hamburg suburban services. The loading gauge and mainline curvature must both be fairly generous – passenger cars are long, 26 metres (86 feet) and very close coupled. While most main lines are electrified, many R-Bahn routes are not and diesels were fairly common, usually in push-pull mode.



Driving trailer of an hourly Hamburg-Bremen stopping service

Our *March* meeting was at the home of John Prattis. John's theme for the meeting was Sydney Station Number Two which is the theme of an exhibition layout that's being built at the present time in conjunction with two other fellows. This station existed between 1875-1884 and was replaced by Sydney Station Number Three, or Central Station as it's now known. The layout is being built by the early NSW modelling group and has required considerable research using available

books and publications, Australian Railway Historical Society NSW Division records and the NSW State Archives. Every available photo has been scoured for information to aid construction of the layout and the buildings. The layout is scheduled to make its first public appearance at the Malkara exhibition in Canberra in August this year. Construction of the layout has begun with the open framework and baseboards completed. The layout comprises three sections and laying of the code 70 Peco trackwork has been completed and three major building mockups were used to show the relationship between the trackwork and the buildings. All turnouts will be operated with Peco switch machines. The station's model is being built at present with others to follow, including the mortuary station. Modelling such an early period does have some difficulties, including reduced availability of locomotives and rolling stock. Some white metal kits are available from a range of manufacturers and "The Old Buggers" line of goods and passenger equipment provides a good starting point for building trains. In addition to these kits, additional types of rolling stock are being built by kit-bashing these kits and scratch-building. An extensive collection of exquisitely built models was on display to prove it can be done. Jess Brisbane brought her scratch-built enclosed O scale water tank. It's very realistic and features considerable styrene construction, including individual shingles on the roof. Stephen O'Brien brought a Con-Cor Pullman-Standard 3 bay covered hopper car he's detailed with Intermountain ladders, wire grab irons and a Plano running board, painted and decaled for the Norfolk & Western (of course). A very nice freight car.

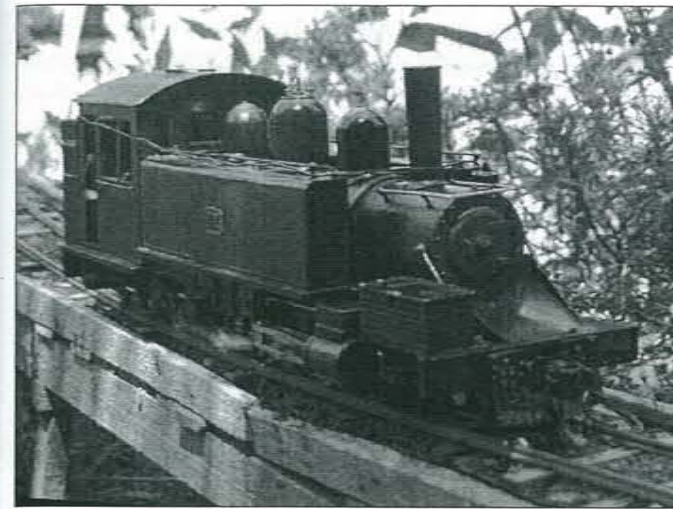
In *April*, we met at Jess Brisbane's where Jess gave us a run-down on the recent Narrow Gauge convention. We also saw some pictures she had taken of exhibits at the convention showing a very high standard of modelling.

Tony Payne hosted our *May* meeting. Tony gave us a demonstration of making fir trees using the sisal string and twisted wire method, where the string is laid in bunches between the legs of a folded length of wire and then the wire is twisted using a drill or similar power tool. With a bit of judicious trimming, some white glue and a few dips into fine ground cover or similar, a very realistic fir tree is produced in a very short time.

I brought along a birthday present, a new Intermountain Pennsy P85 coach. It has excellent detail, including wire grabs, Kadee couplers, an effective coloured interior and correct underfloor equipage, and it is weighted to the NMRA standard – a must for any Pennsy modeller of the fifties!

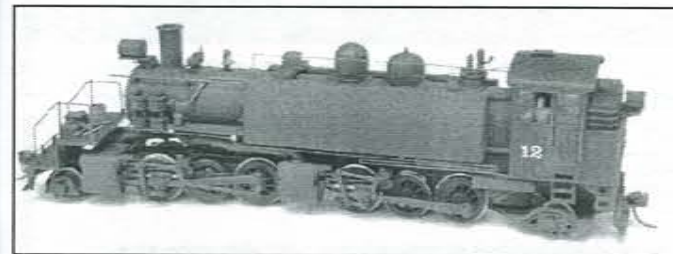
Division 3 Rod Hutchinson  
Victoria

The resurrected *January* Meeting was held after many years of absence on Sunday 23<sup>rd</sup> January 2005 at the home of Peter Keddie in Torquay on the Surf Coast of Victoria. The weather was warm to hot with a burning sun tempered by a sea breeze which made for a pleasant and enjoyable day. A group of fifteen members and four or so spouses signed the attendance



Peter Keddie's Live Steam NA

book. A number of show and tell items appeared with the biggest being Laurie Green's "Sam's Salvage" diorama, a diesel loco and ore car all in 1/4" scale and samples of his resin parts, moulds and dies. Dan Pickard and Paul Ritchie brought some a model of his Pacific Electric Box Motor and the current addition of 1/64 Modelling Guide. Grant McAdam brought a street scene in 1/4" scale being built as a wedding gift and a copy of the recent Light Iron Digest. Peter McDonald brought a SEM streamlined S Class and didn't bring an NA.



Bob Jensen had a modified Mantua 2-6-6-2 Mallet. (See pic above) Alistair Keddie operates a HO Victorian layout running on DCC. Rod Hutchinson showed some samples of deer buck tail, moose and deer hair, and duck bottom feathers. The animal hair makes realistic reeds and tall grass and the duck bottom feathers make small bushes. Rod has since found kangaroo hair is suitable for tall grass and reeds. These products can be found selling for fly tying in fly fishing shops. The meeting took place outside under a shady tarp, surrounded by Peter's garden layout featuring a live steam NA. Peter and son Alistair demonstrated the principles of plastic injection moulding with a home made machine. The machine produced boxes suitable for electronic kit construction. Grant updated us on the planning of the 7<sup>th</sup> Narrow Gauge Convention which is proceeding well. The guest speaker is

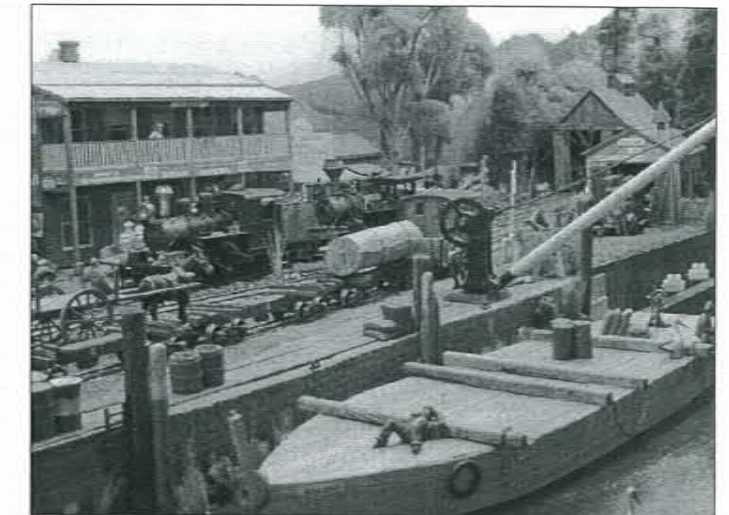


Alistair Keddie CC Class Workshop

Charlie Getz, not Bob Brown as previously advertised. A flyer for the Victorian "Railway Prototype Modelers' Meet" was handed out and may be found at <http://users.tpg.com.au/bhutchin/HobbyPages/Images/PrototypeModelersMeet.jpg>. Grant McAdam thanked the host and hostess for opening up their home. Rod Hutchinson presented the club movie library with a 2<sup>nd</sup> DVD containing footage of Logging Tramways in Victoria.

The *April* meeting was held on Sunday 10<sup>th</sup> April 2005 at the home of June & Steve Cullen in Melton, west of Melbourne. A hot northerly wind persuaded everyone to stay hydrated. A group of twenty-three members and three or so spouses signed the attendance book.

A number of show and tell items were on display with the highlight being Steve Cullen's new "Bellbird" layout. The layout was published in the October 2002 AMRM. Bellbird



Steve Cullen's Bellbird Layout

has been rebuilt and is now a delight to view and operate. A number of excellent models were presented with the show stolen by Dan Pickard's scratch built "Preston's Hardware" and Alan George's mine, both in O Scale. Michael Holian presented us with an O scale speeder and trailer whilst Paul Dundas displayed a Sierra-West blacksmith car and sled. Peter MacDonald showed of his O scale G42 kit and a HO version of the main chassis. Robert Powell brought along G scale Lynton & Barnstaple and D&RGW boxcars. Peter MacDonald and Gavin Hince proudly ran their Bachmann, On30 scale B Class Climax's, both which have undergone detailing. They can be seen along side the wharf at Bellbird. In all, three, B Class Climax's ran on Bellbird during the day. Laurie Green showed off Gwydir Valley Models sound and lighting modules. Ken Hughes brought along "Railways of Malta" and Grant McAdam, "Legends of Steam" and some O scale scratch built furniture.

Rod Hutchinson advised that Peter Evans author of "Rails to Rubicon" is happy to conduct a walk and talk through historic sawmill and tramway sites in Victoria. The guided tour will occur sometime in the 3<sup>rd</sup> or 4<sup>th</sup> quarter of 2005 and Rod will act as liaison with Peter. Insurance cover is through the LRRSA and a fee will be charged. Phil Badger is seeking expressions of interest in a HOn3/HOn30 version of G42. Rod Hutchinson presented the club with a third DVD on Narrow Gauge Railways. All participants were sheltered



from the hot north wind and welcomed the cool change that occurred during the afternoon. Grant McAdam thanked the host and hostess for opening up their home once again.

The **May** meeting of Division 3 was held on a glorious autumn day at the home of **Laurie and Roe Green** in Sunbury.

Laurie's is always a popular meeting with many people keen to see what he has been working on. Twenty five members were in attendance making it one of our better attended meetings in recent times.

There was a large array of items for display with reading material from Grant McAdam, Mario Rapinett, Laurie Green and Bob Jensen. Once again the models were dominated by O scale items. Grant McAdam had an assortment of castings of O scale furniture. There was a range of buildings: Kee's Laundry by Michael Holian, A.G. Henry's Machinery Supplies by Dan Pickard, Banta Model Works 'O' scale depot by Gavin Hince, supply shed by Steve Cullen and logging bunk houses and store by Laurie Green. Rolling stock was not ignored with Bob Powell bringing along an Isle of Mann Railway wagon in 1/4" scale. Smaller scales were not ignored with a 4mm LMS Garrat by Peter MacDonald and an HO Z19 Ezikit loco and tender from Bob Jensen.

Grant McAdam kept the formal meeting part relatively short. He reminded the members about the NMRA convention in September and told them about the exhibition in November. Grant also announced that the next Narrow Gauge Convention will be held over the Easter weekend in 2007 and called on the members present for their suggestions and any offers of help.

#### Division 6 South Australia

Ron Solly

Meeting of Mar 19, 2005 held at the home of Trevor Triplow started at 1.30PM on a fine day with nineteen members & visitors, & Trevor had a large scale tram running around the group adding a different approach to meetings & Ian Wade & Ken House had vehicles on display for Golden Spike considerations. The formal part was started with Ron advising that copies of the 2004 Convention CD were available for \$5 with \$1 of it being donated to the Region. The additional CD's were donated by Geoff Chatwin. The raffle was started with a Hobby Super Drill (Dremel style) being one prize & the other a \$25 gift Voucher from SA Hobbies in Adelaide, courtesy of Ian Wade. Ian will relay our thanks to SA Hobbies. The raffle will be drawn at the May meeting.

Our library is in two parts – magazines with David Lovering looking after this & he has got together various years in folders so that members may borrow them. Surplus copies are available at 20c each or \$2 for 12 - David will be advising members soon of what he has for borrowing as well as duplicates. Trevor has donated to our Division, copies of NMRA Bulletins of later years already in folders for members to borrow. The videos are now in the hands of Al Harris who also has spare copies of the Convention CD. Some members took advantage of posting in bulk the ballot for

NMRA Directors as organised by Ray & Ron. Ron then mentioned about the proposal of having a meeting at the National Rail Museum but when he indicated costs & that we would have to be there at the same time to enter & one member would have to be the co-ordinator/reporter for that day, no one showed any real interest.

The next meeting on May 21 has been moved from Ron Davey's home to Ron Solly's at Evanston Gardens due to lack of space & Bob Bevan will host the July meeting. A short discussion on proposals for 2006 hosting & dates resulted in Ian offering to host possibly two meetings at the DECCA rooms with Trevor, Ray, Ron & Bob for one each. The dates will be worked out in the next couple of months and presented to the members. Other members who would like to host a meeting to advise Ron by the end of March. Hosting meetings adds to points for AP Volunteers certificates.

The Achievement Program & specifically the Golden Spike award was given more airing by Ray & it seems more members are showing some interest in the certificates, etc. Ray took notes & photos of the vehicles displayed by Ian & Ken for part of the Golden Spike awards & Ian's layout will be given the examination/judging at the forthcoming SARMA exhibition at the end of April. It is hoped that any certificates can be presented at our Christmas meeting in November. The meeting was conducted in the Movie Theatre that Trevor has set up in his home complete with organist, moving curtains, jaffas & all things that the old theatres had. Trevor showed 2 films being railway orientated, one being SAR & one on USA narrow gauge & was finished with a Tom & Jerry cartoon. Trevor was presented with the plaque for hosting the meeting & the afternoon was rounded off with refreshments in the form of tea/coffee/ soft drinks & nibbles in which Trevor donated.

The afternoon wound up around 4.30PM.

#### Division 7 Sydney

David Jupp

Our **April** meeting, held at the ever popular Gerry Hopkins place incorporated the Annual General Meeting which was run by Allan. Held under the official rules, Allan chaired and presented his President's Report (You will find this on page 5 of this issue) followed by Treasurer Erik Bennett's report. With the official requirements out of the way, Gerry's layout attracted much attention with a demonstration of sound. MainLine editor requested help in the form of articles for the magazine with a great response from the Div 7 members. Once again a great selection of yummies from Lauris. Thanks to the Hopkins for their hospitality.

**May 14th** was meeting time at Stuart and Susan Sharp's residence in Earlwood. Stuart introduced a new format at the meeting with a layout handout and the meeting officially starting at 2 pm. His philosophy was that members should be on time and for those that are there are benefits. Stuart explained the ins and outs of his layout and the contribution made by Susan. We were all stunned that the bench work had been built by Susan as Stuart has suffered severe arthritis, limiting somewhat his hand and finger dexterity. A layout

never the less has been built based on Susan's home NYC. The system is under the control of Easy DCC and incorporates the latest in sound. Guest speaker Ron Cunningham was originally due to talk about his Eureka Models but he suddenly had to depart for China to approve the finals of his new creations. In his place Ray Pilgrim spoke about the new venture and showed models of the NSW 620 Rail Motors due for release shortly. Also gaining much interest were the detail drawings of the AD-60 Garratt due in September. This promises to be well worth the wait and an example of the detail was explained in the fact that 42 sprues from the detail of the AD-



Part of Stuart Sharp's partially scened layout

60. In comparison 6 or 7 are normal for a diesel loco. Sound from QSI is also offered without the US style bell. Despite the locos length it will negotiate 18" curves. The latest announcement is to be the 38 class mainline steam

loco and some wagons are also proposed. Public Officer Sowerby Smith also presented a couple of clinics on fitting Kadees to old Athearn rolling stock which were well received and John Geremin NSW BLI dealer explained some of the delays in Broadway Limited arrivals. Seems that QSI the sound supplier has a major shortage of silicon chips. It was also nice to see AR member Ted Roberts,



Stuart addresses the membership of approx 70



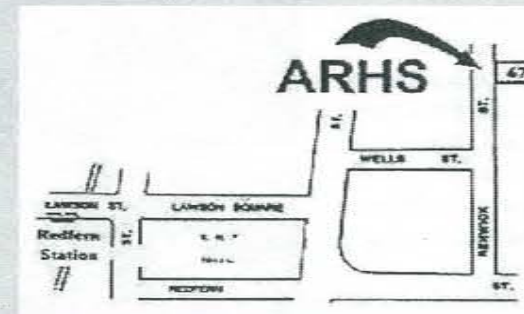
Ray Pilgrim addressing the members

Stuart's sound equipped Shay

## Try the ARHS first for Railway Books & Magazines

Australia's best selection of new books, magazines, CDs, videos and DVDs on Australian, North American, European and British railways and tramways.

ARHS/NSW Bookshop  
Open Mon – Fri  
11.00am – 5.00pm  
and Saturday  
9.30am – 3.30pm



67 Renwick Street.  
Redfern, NSW 2016  
Tel: (02) 9699-4595  
Fax: (02) 9699-1714

AUSTRALIAN RAILWAY HISTORICAL SOCIETY – New South Wales Division  
The ARHS Archives, at the same address are open for research on the first, second and third Tuesdays of each month also Saturdays 10.00am – 3.30pm

[www.arhsnsw.com.au](http://www.arhsnsw.com.au)

Secure on line shopping facility now available Mastercard, Visa, Bankcard and Amex accepted.  
Please Note: Tours of Sydney' St James Tunnels and Central Station are postponed indefinitely.



## Model Railroad Craftsman

Shop No. 2/21 Campbell Street, Blacktown, 2148.

Open Tuesday 10 am to 5 pm

Wednesday 10 am to 5 pm

Thursday 10 am to 8 pm

Saturday 9.30 am to 3.30 pm

Tele: 02-9831-8217 Fax: 02-9831-4132

email us at [mrc@zip.com.au](mailto:mrc@zip.com.au)

Mail orders to PO Box 4200, Marayong, 2148.

We accept - MasterCard, Visa, Bankcard and cheque

Walthers Cornerstone Kits - All kits 10% off [2 or more]

### Current package deals.

On30 Porter 0-4-0 + 3 'V' Dumps cars \$105.00

On30 Shay or Climax + Skeleton Cars + Combine \$499.00

BLI sound equipped On30 2-8-0 C16 + 3 coaches \$5500.00

BLI sound equipped E6 UP A-B + 8 coaches \$1125.00

Atlas SD 26 Union Pacific & ATSF Zebra \$440.00

Sound equipped DC & DCC locomotives from Atlas, Broadway Limited [BLI], Lifelike & Lionel are in stock.

Just arrived On30 Chivers 14 & 20 foot rolling stock kits.

Visit our web site or ring for details  
<http://www.zip.com.au/~mrc>

## N.C.E. Super SALE

NCE Pro 5A - \$685.00

NCE Pro Radio 5A - \$985.00

All NCE Pro feature a 5 amp booster, advanced user English interface, RS232 PC port and UPT plug point. The system support long addressing, advanced consisting and a 12 month Australian warranty

D13SR or D13SRJ \$23.50 ea

D13SR or SRJ Decoders 4 pack \$87.50 ea

D13SR Decoder 10 pack \$199.95

DA-SR Decoders 4 pack \$103.50

N12SR, D14SRP Decoders \$34.50 ea

P2KSR, N14SR Decoders \$34.50

N12A0 & A1 'N' scale plug & play \$34.50

Pro Throttle \$208.00, Knob Throttle \$117.00

EB3 Circuit Breaker \$65.00 - a full range of NCE product is available - ring for details

All items purchased thru the MRC or approved dealers are covered for warranty & service in Australia.

Ask before you buy.....!!!!!!

## Anton's Trains Order Service

\*The source for Oz Flock, Oz Kits, Oz Controllers & Power Plus transformers to power up all digital systems.

\*Lots of scenery materials & tree frames and foam

\*Ballast adhesive and latex rubber

\*Muscle motors, timers, train reversers, smoke units, CD units for points,

Peko metal point bases

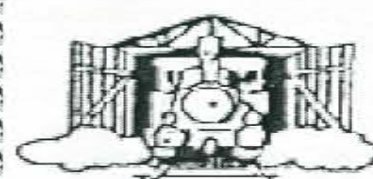
\*Hobby boards, and super stripwood choppers

\*Hobby drills and full range of drills discs saw blades, diamond cutting discs,

flex drive shafts and mini chucks

\*The complete UNEEK range of HO detailing parts in white metal.

\*Motorised and fully indexed turntables for Big Boy and Garratt.

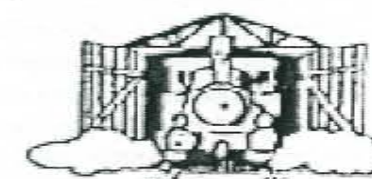


P.O. Box 236 Castle Hill 1765

Fax: (02) 9899 4484

Email: [bognar@bigpond.com](mailto:bognar@bigpond.com)

ABN 62 219 906 889



## Gwydir Valley Models

IRDOT  
Infrared Train Detectors

LIGHT WORKS  
NEON SIGNS

New, Animated Billboard and  
Vertical Multi-graphic Neon  
Signs



NEW

Golden White LEDs 3mm & 5mm as reviewed in RMC. \$5.50 pack of 2 with resistors.

Constant Brightness Directional Lighting Units supplied with pin connectors and 4 bulbs 1.5 volt 1.2mm dia. \$29.95

NEW - RUSTALL  
Rusts Anything \$38.50

Miniature Globes - Stony Canyon Scenics  
Heritage Billboard - Decals AR Kits  
Kappler Timber - Timber Veneers

P.O. Box 740 GLEN INNES NSW 2370  
Phone: 02 6732 5711 Fax: 02 6732 1731  
Email: [info@gwydirvalleymodels.com](mailto:info@gwydirvalleymodels.com)  
Web: [www.gwydirvalleymodels.com](http://www.gwydirvalleymodels.com)



## HOBBIES IN THE HILLS

Cnr. Windsor Road & Victoria Ave  
Castle Hill 2154

PHONE (02) 9899-5207

- Plastic Kits
- Slot Cars
- Model Railways
- Timber Ships
- Dolls Houses
- Radio Controlled cars
- Girls Crafts
- Paints
- Materials

Railway materials include, Trees, Glues, Paints, Xacto Knives and Blades, Perspex, WoodLand Scenics Materials

**Come visit us and have a look. Hobbies for the whole family.**



# Operations on the 'Milwaukee Road - Kansas City Subdivision'

By Kelly Loyd

## Background

I was a Tower Operator for the Chicago, Milwaukee, St. Paul and Pacific Railroad from 1980 to 1982. My first year with 'The Milwaukee Road' as we called it, was on the extra board. I worked one night a week at each of 3 towers/stations. I worked at West Wye Tower, Truman Drawbridge and Laredo Train order station. West Wye Tower was the farthest west (Timetable direction) from Chicago on the Kansas City line. It controlled a double-track wye, with trains arriving from the Truman Drawbridge on one leg and trains arriving from the Kansas City Southern on the other legs. The interlocking plant was made by Union Switch and Signal and was a direct wire control. It looked like a CTC panel without the 'code' buttons. The signals were target searchlights and electric motor switch machines actuated the switch points.

The Truman Drawbridge had a centre-span lift, which was controlled by the railroad operator and was interlocked with the train signals. There was double track on either side of the bridge, with single track over the span. The CTC machine at Truman Drawbridge was also made by US&S, and was a proper CTC machine, with remote control of 42 miles (67 kilometres) of double-track mainline.

I was qualified to operate the interlocking plant at West Wye Tower, the CTC panel at the Truman Bridge, the drawbridge controls and copy train orders at Laredo and West Wye train order stations.

## Building the Layout

I received approval and a space to build a model railroad in July of 2003 and I knew exactly what I wanted to build. I did not realize it at the time, but I was going to build a 4 by 8 layout that would be well suited for operations! The layout originally came from an Atlas plan book for their sectional track, which was designed by the legendary John Armstrong. I never knew this, but something about the plan always attracted me. I had built a layout before, but was never satisfied with just running trains around and around. There needed to be some switching!

When I built the layout, I knew that it would be in Kansas City, and it would be 1980 on The Milwaukee Road. I loved the SW1500's of the KCS and the Milwaukee GP40s and SD40-2s – these were the engines that operated around West Wye Tower all day long and so I know them very well. The layout was built, and we operated using the original plan, which had no staging, three industry tracks, a three track yard and double track mainline. My friends suggested that I extend along the wall and put in some staging, which I did and it became Broadway Tower. Another friend suggested that the insertion of a single turnout would get me a track to the other

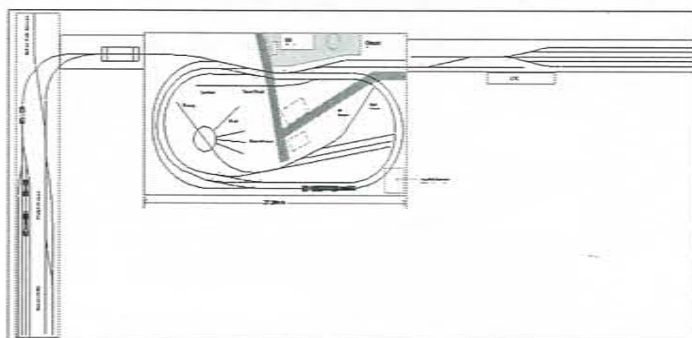
edge of the layout and to use the wasted wall space for further staging and switching. That became Southwest Junction and Centropolis.

After these additions, I have the 'Milwaukee Road - Kansas City Subdivision'. You will find Kansas City junction names and places here. I have named places such as Southwest Junction, Rock Creek Junction, Coburg Yard, Independence, Sugar Creek, Centropolis and Broadway Tower. These places have just about the same industries as the prototype and the places are the correct east/west orientation.

I have indulged in a little bit of freelancing. The Coburg Yard was abandoned when the Milwaukee and KCS railroads teamed up at East Yard and the Milwaukee mainline came across the Truman Bridge. On my layout, Coburg Yard is still operating, although it is more of a transfer yard, as will be seen later. For brevity, the layout will be referred to as the 'KC Sub' for the rest of the article.

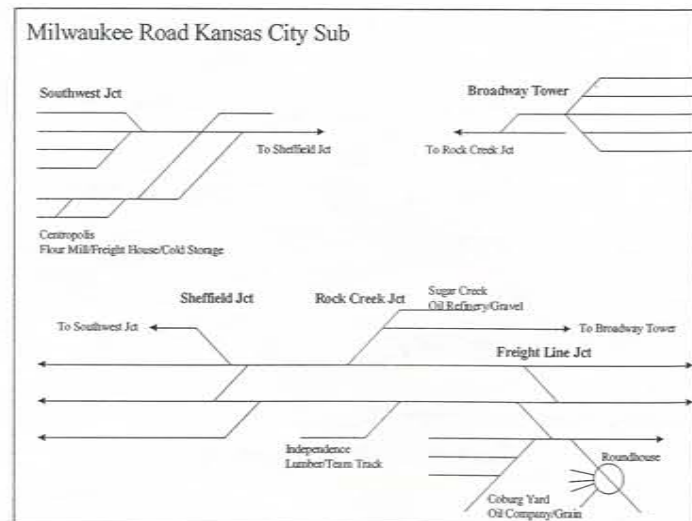
## Layout Diagram

Here is the physical layout diagram. You can see the major part of the layout, which was built first, as the double-tracked



oval on the 5 by 9 board.

Here is a schematic diagram, showing the names of places.



Southwest Jct is the far left section of the layout and Broadway Tower is the far right staging area.

## Car Movement

Freight cars are moved over the layout by means of car cards and waybills. The KC Sub uses the principal that foreign railroad companies deliver and pick up cars from Coburg Yard. These are called the 'Transfer Run' trains. A large portion of rail traffic in Kansas City is transfers of cars between rail companies. When I worked there in 1980, there were 13 railroad companies in Kansas City: -

1. Atchison Topeka and Santa Fe (ATSF)
2. Union Pacific (UP)
3. Cotton Belt (SSW)
4. Rock Island (CRI&P)
5. Missouri Pacific (MP)
6. Missouri Kansas & Texas (MKT)
7. St. Louis & San Francisco (Frisco)
8. Burlington Northern (BN)
9. Illinois Central Gulf (ICG)
10. Norfolk & Western (N&W)
11. Milwaukee Road (MILW)
12. Kansas City Southern (KCS)
13. Kansas City Terminal (KCT)

Most of these railroad companies terminated at Kansas City. The ATSF and MP passed through but had large yards. There would usually only be two places for freight cars to go in Kansas City, either delivered to a foreign railroad or local industries.

On the KC Sub, I have modelled the MP, BN, ATSF, KCS and Milwaukee Road (MILW). Staging is designated by the originating yard, so the KCS transfer train sits on the track designated 'Kenoche Yard', the MP train waits in 'Neff Yard', the ATSF train waits in 'Argentine Yard', the BN train waits in 'Murray Yard' and the MILW train originates from Chicago.

Each car on the layout has an associated card. The card has a pocket in front to hold a waybill. I use 4 position waybills and the general routing is: -

1. Industry
2. Foreign railroad industry
3. Industry
4. Foreign railroad industry

For example, a boxcar goes to the Freight House at Centropolis with a load of parts, returns empty to an industry not on the layout and can return again with another load. Some cars can travel between two on-line industries, such as a tank car from the Sugar Creek refinery to the Oil Company at Coburg.



BNKC Engine BN 1953 waits at Rock Creek Jct.

## How does a car get from place to place?

A car may start by being in a 'Transfer Run' train consist in a foreign railroad yard, and then it will be dropped off at Coburg Yard by the 'Transfer Run'. Once in Coburg Yard, the Yardmaster will put it into a Local 'Turn' train to be delivered to the on-line industry. The Local 'Turn' will deliver the car to the industry and pick up any cars, which are ready and return them to Coburg. The car will stay at the industry until another local 'Turn' picks it up.

Since the layout is not very large, I try to maintain a balance of cars, therefore the pickup and delivery rule is simple. If there is a car standing at the spot where you want to make a delivery, then that car must be picked up. This way there is a continuous exchange of cars. This makes the instructions to switch crews simple, read the waybill in the car card to determine where the car will go, drop off what cars you have, pick up cars standing at the spots where you deliver, leave the car cards in the holders marked for the corresponding industry, and take the car cards for the pickups that you make. It is not necessary for switch crews to read the waybills for cars returning to Coburg, as the Yardmaster will work out where the returning cars will go.

If there are one or more cars waiting in Coburg for a foreign railroad, the Yardmaster will notify the Dispatcher, who will then call a crew to operate the 'Transfer Run' from the appropriate yard. The 'Transfer Run' also makes a 1 for 1 exchange of cars. For example, if the Coburg Yardmaster has 2 cars to be routed via the MP (Missouri Pacific), he will call the Dispatcher to start the MP transfer. When the MP transfer arrives, the Yardmaster will exchange the 2 cars he has for the MP with 2 cars from the front of the MP transfer train. The train lengths average 5 cars. Forcing the Yardmaster to take the lead cars from the train introduces a small amount of 'randomness' into the car movements. The layout owner can also decide to place wanted cars at the head of the 'Transfer Run' train before a session to make the car exchanges flow better.

## How do the rear cars on the train ever get exchanged?

When the transfer run has completed his car exchange with the Coburg Yardmaster, he will continue in the same direction and put his train into a spare staging track on the opposite side of the layout. For example, trains originating at Broadway Tower (MP, ATSF, BN) will tie-up at a spare track at Southwest Junction. When the operating session is finished, I will take a switch engine over to staging and pull out the trains that are 'nose-in', since these are the ones that have been run. I switch out the new cars at the front of the train (nearest the engine) and place them on the back of the train. This puts the next cars up to the front ready for the next session. The switch engine then pulls the entire train directly from one staging yard to the other end (note that this does not require the switch engine to 'go around' the layout, just come on at Sheffield Jct and straight off at Rock Creek Jct. The switch engine cuts off right before the home yard of the transfer run and escapes into another staging track. The transfer engine then reverses out of staging, across the back of the layout and couples to its train



and gently reverses into the home yard. Then the switch engine can escape out of the spare staging track and go back to the roundhouse.

**Let's follow a typical car from end to end.**

1. A boxcar (MP 57821) is on the head end of the MP transfer run.
2. The MP transfer run delivers the boxcar to Coburg Yard.
3. The Coburg Yardmaster reads the waybill, which states that the car is destined for the Team Track at Independence.
4. The Yardmaster puts the boxcar into the Independence Turn, a Local which switches the Team Track, Lumber Company, Oil Refinery and Gravel Company.
5. The Independence Turn takes the boxcar to the Team Track, makes a pick up if a car is there, and leaves our boxcar at the Team Track.
6. At the end of the operating session, the waybill for our boxcar is advanced to the next position (1->2), by pulling it out of the car card and turning it over.
7. One or more operating sessions later, the boxcar is collected by another Independence Turn and returned to Coburg Yard.
8. The Yardmaster examines the waybill, which states that the boxcar is to be delivered to the MP railroad for a city and industry that is NOT on the layout.
9. The Yardmaster exchanges our boxcar with another car from the MP transfer run.
10. After the operating session, the boxcar is switched out to the end of the MP transfer run and the waybill is moved to the next position (2->3).
11. After a couple of operating sessions, our boxcar may get bumped back to the front of the train.
12. On the next MP transfer run, the boxcar may turn up again and it might go to the Freight House. Then the whole cycle will repeat again.

Once the waybill has been advanced to the 4<sup>th</sup> position, I will reset it back to 1. As in the prototype, the Yardmaster, Transfer Crews and Local Crews do not determine what is on the waybill. Only the authorised Agents of the railroad companies can change or create waybills. Shippers determine the waybills by what they are shipping and where it will go. Also, with this system, the Yardmaster does not pre-determine which cars he will receive from the 'Transfer Run', he must accept the cars at the head of the train.

**Dispatching**

Movements on the KC Sub are authorised by the Dispatcher using Track Warrant Control. The dispatcher uses a Train Sheet, similar to the prototype practice.

The train sheet contains spaces to put the date, the dispatcher's name and the information about each train that operates over the railroad. When a crew is called on duty, the dispatcher will put their train ID into the box below Train ID, the Engine

Milwaukee Road Train Sheet		Dispatcher: _____ Date: _____					
Kansas City Subdivision		Train ID	Train ID	Train ID	Train ID	Train ID	Train ID
Eastbound, read up	Westbound, read down	Engine	Engine	Engine	Engine	Engine	Engine
Station (Block)		Crew	Crew	Crew	Crew	Crew	Crew
E	Southwest Jct	W					
E	Sheffield Jct N	W					
E	Rock Creek N	W					
E	Freight Line Jct N	X					
X	Freight Line Jct S	W					
E	Sheffield Jct S	W					
E	Rock Creek S	W					
E	Coburg	W					
E	Freight Line Jct S	W					
E	Sheffield Jct S	X					
X	Rock Creek S	X					
E	Rock Creek N	X					
E	Freight Line Jct N	X					
E	Sheffield Jct N	W					
E	Rock Creek N	W					
E	Broadway Tower	W					

Number below 'Engine' and their Initials next to 'Crew'. Train Ids are:-

1. CHKC - Milwaukee Road Chicago to Kansas City
2. SFKC - Santa Fe Transfer
3. KSKC - KCS Transfer
4. BNKC - BN Transfer
5. MPKC - Missouri Pacific Transfer
6. CYIN - Coburg Yard to Independence Turn
7. CYCT - Coburg Yard to Centropolis Turn

The A and A' (A Prime) Columns for each train indicate where the dispatcher has granted Authority to hold the main line for each block. When Authority is granted, the dispatcher will mark the column with a slash (/). The slash serves to remind the Dispatcher what Authority he has granted, to avoid a condition called 'Overlapping Authority'. It is a fancy term meaning that two trains will probably crash into each other. A Dispatcher must never grant Overlapping Authority or he will find himself in the unemployment line.

Once a train has occupied a block, the dispatcher will cross the slash, or convert it into an 'X', showing that the Authority has expired.

**How does the dispatcher know that the train has occupied or passed the block?**

The Train Crew or the Tower Operator should report it, e.g. "Dispatcher, BNKC Engine 1953 has passed Sheffield Junction", or "Dispatcher, MPKC Engine 854 has arrived at Freight Line Junction." If no report is made, the Dispatcher will assume that the train has not occupied the blocks and hold the blocks against opposing train movements. The dispatcher may ask the train where they are as well.

**Why are there two columns for Authority (A and A')?**

Trains may use blocks twice as they travel around the layout. Due to the oval loop nature of the track, this is what happens. Also, it gives a more realistic operating time. If I am running the layout on my own, I just bypass the longer route and go straight to the yard through the crossovers. In an operating session, it is desirable to have a more prototypical run for a train. Usually the Transfer Crews take about 15 to 20 minutes to complete their jobs. However, it has been known that sometimes Transfer Crews have to wait for a while for another train and this adds operating interest. Real train crews spend a lot of time waiting for Authority, either in the form of Track

Warrant Control or just sitting at a stop signal for a while.

**Train Order form - Track Warrant Control**

A sample form is included showing the General Instructions for the Crew and a series of Check Boxes to tick off when Authority is granted. A typical conversation may go like this:-  
 Crew: "BNKC 1953, Dispatcher"  
 Dispatcher: "Dispatcher, go ahead 1953"  
 Crew: "BNKC 1953 requesting permission to leave Broadway Tower"  
 Dispatcher: "BNKC 1953, Authority granted to Freight Line Jct North Main."  
 Crew: "Authority to Rock Creek North Main, OK"  
 The dispatcher will then put a slash in 'Broadway Tower', 'Rock Creek North Main', 'Sheffield Jct North Main' and 'Freight Line Jct North Main'  
 The Crew will tick the same boxes on their Track Warrant Control. They then will operate their train to the block 'Freight Line Jct North Main' and notify the dispatcher when they have arrived.  
 Crew: "BNKC 1953, Dispatcher"  
 Dispatcher: "Dispatcher, go ahead 1953"  
 Crew: "1953 arrived at Freight Line Jct North"  
 Dispatcher: "Arrived Freight Line Jct North, OK. Hold for further instructions."  
 Crew: "OK"

This system is good, since the crews do not need to write

**Chicago, Milwaukee, St. Paul & Pacific Railroad Co.**

**Kansas City Subdivision**

Train Order - Track Warrant Control Date: 30-Mar-2005

To: C&E EXTRA ATSF 3356 East

Check car cards before departing Argentine Yard.  
 Check Locomotive operation via headlamp.  
 Two crossover operations are required (Rock Creek North Main to Sheffield South Main and Sheffield South Main to Freight Line North Main)  
 Ask Tower Operator to line switches for correct route.  
 You may only occupy main track as authorized by dispatcher. Once you have exited a block, you no longer have authority for that block.  
 Stop your train where your authority ends and request further permission from dispatcher.  
 When you arrive at Freight Line Jct South, co-ordinate with the Coburg Yardmaster to exchange cars and car cards.  
 You will tie-up your train on any available track at Southwest Jct.

Authority to hold main track (tick as notified by dispatcher)

- Broadway Tower
- Rock Creek North Main
- Sheffield Jct North Main
- Freight Line Jct North Main
- Rock Creek North Main
- Sheffield Jct South Main - Crossover at Sheffield Jct
- Freight Line Jct South Main
- Coburg - Arrange with Yardmaster
- Rock Creek South Main
- Sheffield Jct South Main
- Freight Line Jct North Main - Crossover at Freight Line Jct
- Rock Creek Jct North Main
- Sheffield Jct North Main
- Southwest Jct
- > Report Tie-up to Dispatcher

**Mountain Blue Miniatures**

PEARCE MINIATURES  
 railway figures are now made by  
 Mountain Blue Miniatures.



Do you own an On30 Porter? Then you need a Mountain Blue finely crafted white metal O-scale Driver and wood-stoking Fireman. This crew has been crafted specifically to fit the Porter and its wood-fired boiler. Remember all of the Pearce collection is now made by Mountain Blue.

The full range is available from your local hobby retailer:  
 New South Wales The RAILCAR  
 Victoria BUFFER STOP  
 Queensland TRAINS & TRACK  
[www.mountainblueminatures.com.au](http://www.mountainblueminatures.com.au)  
 Mountain Blue Miniatures  
 ABN 71 763 534 159  
 PO Box 287 Blaxland NSW 2774  
 Email: mountain\_blue@tpg.com.au

**THE RAILCAR**

The Source for US Narrow Gauge in Australia.

MOUNTAIN MODEL IMPORTS  
 D&RGW K-27's in HOn3, On3 & On30  
 Contact us for details and reservations

Now a Dealer for  
**OZARK MINIATURES**  
 Large range available

DETAIL PARTS & SCRATCHBUILDING SUPPLIES

Contact us for a free catalogue.

Address: 17 The Breakwater  
 CORLETTE NSW 2315  
 Ph/Fax: 02-4981 0668  
 E-mail: [railcar@hunterlink.net.au](mailto:railcar@hunterlink.net.au)  
 Website: [www.railcar.com.au](http://www.railcar.com.au)  
 Contact: Herna or Paul Ward





Milwaukee Alco S4 #817 works the Coburg Yard lead

anything down, but rather just 'tick' boxes to show what Authority they have received.

#### Yardmaster

The Coburg Yardmaster is in charge of Coburg and controls movements within the Yard limits. He will switch cars and organise them into destinations. For example, he will put all the cars bound for Centropolis into a track and make up the Centropolis Turn, one of two local jobs.

#### Tower Operator

The Tower Operator is responsible for controlling all of the powered turnouts on the layout. He has a control panel showing a schematic of the railroad, with green LEDs indicating turnouts set for Normal route and red LEDs designating the Reverse path through the turnout. The operator works closely with the Dispatcher, Yardmaster and Crews to ensure that the proper turnouts are set for all train movements.

#### Transfer Crew

Transfer Crews bring the foreign railroad trains out of their staging yards, travel around the layout twice and arrive at Freight Line Jct. Here they co-ordinate the drop off and pick up of the appropriate number of cars with the Yardmaster. Once they have completed this, the crew proceeds to make 2 more circuits of the mainline. The crews use the crossovers to move from North to South main lines after one of their circuits. The crews must obtain permission from the Dispatcher for



CYCT Coburg Turn Engine MILW 2434 departs Coburg Yard.

each block they will travel through. Since the layout contains two loops, there may be multiple entries for the blocks. Once a block has been passed, authority to occupy it is cancelled.

#### Turn Crew (Locals)

Turn Crews pickup their train from Coburg Yard, track 1. The Independence Turn is a 'Westbound' and departs from Coburg Yard via Sheffield Junction. The crew will visit Independence Business Lead (Lumber Yard, Team Track) and Sugar Creek (Oil Refinery, Gravel Plant), depending on the car waybills. The Centropolis Turn is an 'Eastbound' and departs from Coburg at Freight Line Junction (engine points the opposite direction from the Independence Turn). This is to allow the crew to drive 'nose first' into the Centropolis Industrial Area. Industries to visit here are General Mills (covered hoppers), Freight House (boxcars) and Sykes Cold Storage (refrigerator cars).

#### Conclusion

As you can see, there are a lot of things you can do to operate your layout in a prototypical fashion. All of the concepts are based on my experiences as a Tower Operator for The Milwaukee Road and so are generally based on North American practice in the early 1980's. Rules have not changed significantly since then. Railroads still deliver freight cars to industries and to each other. Trains still must obtain authority to hold main line tracks. I recently spoke with a gentleman who has a nice layout, but just runs trains 'around and around'. After some discussion and a visit to my layout, he realised that he could also adopt some of these practices to enhance his model railroading.

In our operating sessions, we have consistently demonstrated that we can have a lot of fun operating a small layout and still have the sense of working a successful railroad. Everyone gets



to contribute and to try different jobs. If you want to know more about operations, feel free to contact me:- 02 4956 5793 or email at kelly.loyd@internode.on.net

You don't need a railroad empire filling a 10m x 20m room, just a few simple rules and some enthusiasm. "Dispatcher, KCS 710 is waiting at Sheffield Jct" - It's your move!

#### Mail Order Department

Phone, fax, or email us your order for speedy delivery.  
Postage and insurance, as applicable, extra on all purchases.  
Please include phone number with order.  
Prices subject to change without notice.  
Website OPEN 24 Hours per Day.

# CASULA HOBBIES

*Still the place for models of Australian Railways*

62 Moore St, Liverpool, 2170

PO Box 3206, Liverpool, NSW 2170

Phone 02 9602 8640

Fax 02 9602 8874

[www.casulahobbies.com.au](http://www.casulahobbies.com.au)

email: [casulahobbies@casulahobbies.com.au](mailto:casulahobbies@casulahobbies.com.au)

#### Trading Hours

Mon-Fri : 9:00am to 5:30pm  
Thursday : 9:00am to 8:00pm  
Saturday : 9:00am to 3:00pm  
Closed Sundays

For all your modelling needs, see us first at Casula Hobbies; remember we are the home of Australian Railways ... now also American and British outline. We are modellers too.

**If you can walk to your letter box you can walk to Casula Hobbies.**

Log on to [www.casulahobbies.com.au](http://www.casulahobbies.com.au)

Place your order

Watch your mail box

**SAVE \$\$\$\$ ON POST and HANDLING CHARGES FROM U.S.A.**

Search on [www.walthers.com](http://www.walthers.com)

Find your product and place your order on their website

For Delivery Instructions nominate Casula Hobbies as your Hobby Store

Your order will automatically be shipped to Australia with our stock

Orders shipped regularly from U.S.A.

You will be notified when your order has arrived

Either pick up in Liverpool or ask for mail order at low Australian rates

Casula Hobbies do not charge you a handling fee

**We are an authorised "Walthers Partner On-Line Dealer"**

**When placing your order with WALTHERS make sure to choose ORDER FROM CASULA HOBBIES and the goods will be delivered to us and your payment will be Australian Dollars - no more messy exchange rates and charges.**

Try it!

**>>>> NEW STOCKS JUST ARRIVED - SEARCH [casulahobbies.com.au](http://casulahobbies.com.au) FOR:**

MINIATRONICS: GLOBES - SPEAKERS - ULTRA FINE WIRE - FLOQUIL PAINT  
CENTRALIA UNION PACIFIC CABOOSES - BRANCHLINE 8-1-2 SLEEPERS  
BETHLEHEM CAR WORKS PRR BAGGAGE CAR - WALTHERS PASSENGER CARS  
RIVAROSSO COACHES - DETAIL ASSOCIATES and CMA SCALE WIRE  
INTERMOUNTAIN WHEELS and EMD F3s and F7s - MICROSCALE DECALS  
EVERGREEN STYRENE - KADEES - WOODLAND SCENICS

**We place orders every 14 days to USA.**

**WHEN PLACING ORDERS TELL US YOUR NMRA MEMBERSHIP NUMBER**







# CONCOCTING CONIFERS

## Making Cheap and Easy Conifers

By John Eagles

This article is based on, a hands on workshop I gave at the 2004 NMRA Convention.

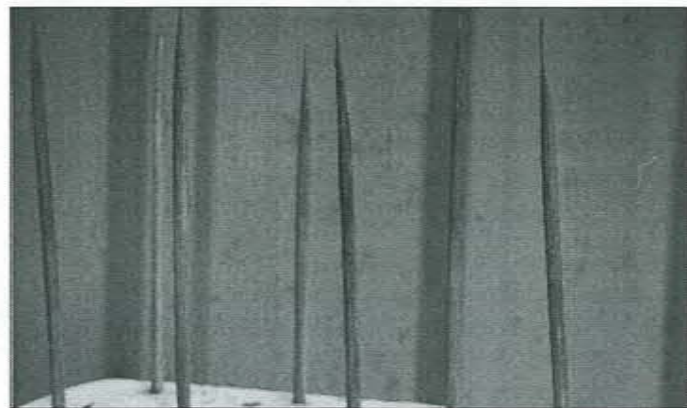
Hopefully this article will give you the skills to make a lot of "pine trees" quickly and cheaply that will impress visitors to your layout as they admire your magnificent forests.

The aim is not to make the "perfect" foreground pine tree. They are background trees.

Anyway the method I'm going to discuss is not new. The idea has been around for awhile and has been reported on in the model railroad press over the years. All I have done is "steal" an idea here and there and mix in some of my own and this is what I have come up with. No doubt you will come up with your own ideas that improve what I've done. Please feel free to share your ideas.

### MATERIALS NEEDED:

**The Trunk:** Bamboo skewers or chop sticks or square balsa ¼" to ½" square.



**Branch Structure:** scouring pads, either green or brown. Buy the cheapest brand you can find.

**Foliage:** Ground foam either commercial or home made

**Glue:** Weldbond, also some toothpicks to apply the glue and some cardboard or index card to put the glue on.

**Paint or Stain :** I use the following:

Feast & Watson Walnut stain.

Black India Ink mixed in a ratio of 2 teaspoons of ink to 345 ml (one Bottle) of isopropyl alcohol.

Art Spectrum Sepia India ink Concentrate mixed with isopropyl alcohol in a ratio of one part ink to 5 parts alcohol.

Tamiya Dark Sea Gray Acrylic paint mixed with isopropyl alcohol in a ratio of one part paint to 5 parts alcohol.

**Styrofoam Block:** use to "plant" your trees while assembling them.

**Spray Adhesive:** I use Micador Workable Matt Fixative

which you can buy from an art supply store. Basically use any good spray adhesive. So long as it dries flat and clear. Some people use cheap hairspray but I find that overtime it loses its hold and the ground foam falls off the trees.

**Artists Pastel Chalks:** If you are feeling very fussy you can use these chalks to colour the tree trunks and to add moss to the tree trunks. An optional extra

### TOOLS NEEDED:

Razor saw and mitre box or cutting board.

A wood rasp or Surform rasp or 12 inch flat bastard cut file.

Pencil sharpener.

Exacto knife with #11 blade.

Utility knife.

Scissors.

Coarse hacksaw blade and holder, or coarse jigsaw blade and holder.

Disposable gloves.

Pieces of an old T shirt, or cheap paint brushes.

A container at least as long as the tallest tree you intend making . 12 inches long is a good size.

Sandpaper.

An old ballpoint pen or centre punch or sharpened chopstick. This for poking a hole in the scouring pad branches for the tree trunks.

Paper towels and newspaper.

### MAKING THE TREES:

It is best to make these trees in a production line. I usually make a dozen or so at a time. A word of warning though, don't go overboard and try and make a 100 at a time, you will go crazy.

### THE TREE TRUNKS:

#### Method #1 Bamboo skewers:

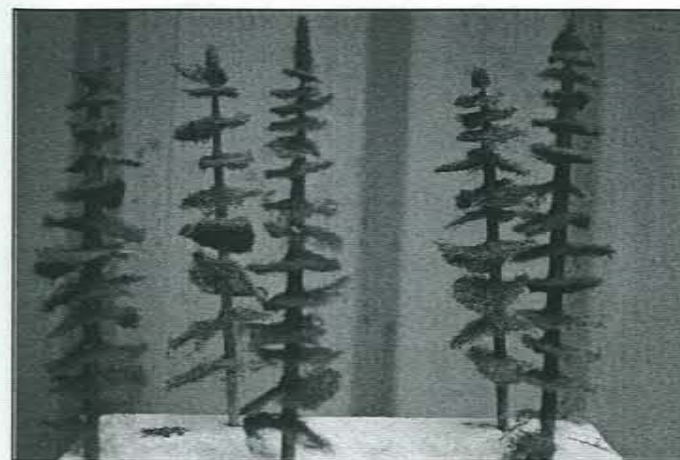
- A packet of bamboo skewers will cost you between \$1 and \$2. You get between 100 and 150 per packet. Buy the 12 inch ones and try to get the thickest you can find. They make better looking trunks You can use the skewers as is for a 12inch high tree.
- Using a razor saw and a mitre box or cutting board cut the skewers to different lengths. Cut from the blunt end of the skewer so that the pointed end becomes the top of your trunk. I find it best to cut your skewers to different lengths because in nature trees are rarely the same height.
- Finish off the taper with a coarse file and some sandpaper.
- Lightly sand the skewer to remove any splinters of

bamboo that are sticking out. This is important. If you don't do this the scouring pad "branches" will catch on these splinters and rip chunks out of your trunk.

- The next step is to stain your trunks. Get a piece of old cloth and dip it into your stain and draw the trunks through the cloth one at a time. Leave to dry on some paper towels. **NOTE:** wear disposable gloves, it makes cleaning your hands a lot easier. The stain I use is Feast & Watson's walnut stain. If you want to give the trunks a greyish tinge, you can re-stain the trunks with a black India ink stain after the walnut stain has dried. What stain you use is up to you.

### Method#2 Chop Sticks

- The best ones I have found come in a packet of 20 and are stained brown wood. You can them at your nearest Asian grocery or \$2 shop. I paid \$2 a packet for mine. You can also get the white bamboo type. Avoid chopsticks that have printed or embossed writing on them, or that have designs carved into them. Never use plastic chopsticks. Using a razor saw and a mitre box or cutting board cut the chopsticks to different lengths. Cut from the square end of the chopstick so that the tapered end becomes the top of your trunk. Now comes the fun part; carving your chopsticks into tree trunks. Using a pencil sharpener, sharpen the tapered end to a point. Using either Exacto knife with a #11 blade or a utility knife, whittle the tapered end until it forms a point. It doesn't have to be anything fancy. Then carve off the corners of the square section of the chopstick. Rotate the chopstick and continue carving until it is roughly round. **NOTE:** I said roughly round, tree trunks are never perfect circles. Then using a wood rasp a coarse file or a Surform file, run the chopstick along it length wise to even out any rough spots left by your carving. If you have access to a belt sander you can use it taper and round the chopsticks. This makes the task a lot easier and quicker. Then using a pencil sharpener, sharpen a point on the blunt end of the chopstick. This will help you plant



them in your scenery.

Using a coarse razor saw or hacksaw blade or a jig saw blade distress the chopsticks to add the bark texture. Be vicious about this.

Then lightly sand the skewer to remove any splinters of bamboo that are sticking out. This is important. If you don't do this the scouring pad "branches" will catch on these splinters and rip chunks out of your trunk.

If you are using the brown chopsticks you can just stain them with black India ink stain.

If you are using the white bamboo chopsticks, stain them with the Feast & Watson walnut stain first. When dry re-stain with the black India ink stain. Or use whatever stain you prefer. **NOTE:** wear disposable gloves it makes cleaning your hands a lot easier.

### Method#3 Balsa Wood Trunks

Use ¼" to ½" square balsa.

Using a razor saw and a mitre box or cutting board cut the balsa to different lengths. I make mine 6" to 15" long. The longer the tree the bigger the diameter. Using either Exacto knife with a #11 blade or a utility knife, whittle a taper on one end until it forms a point. It doesn't have to be anything fancy. The taper should be about a third of the length of the trunk.

Then carve off the corners of the square section of the balsa. Rotate the balsa and continue carving until it is roughly round. **NOTE:** I said roughly round, tree trunks are never perfect circles.

Use some sandpaper to smooth out any bumps or lumps on your trunk.

Then using a pencil sharpener, sharpen a point on the blunt end of the balsa. This will help you plant them in your scenery.

Using a coarse razor saw or hacksaw blade or a jig saw blade distress the balsa to add the bark texture. Be vicious about this.

Then lightly sand the trunk to remove any fuzz.

Stain your trunk. I use 2 stains on my balsa trunks. The first is Tamiya Dark Sea Gray Acrylic stain. When that has dried, I use a wash of Sepia India ink stain. You can use your favourite stain. **NOTE:** wear disposable gloves it makes cleaning your hands a lot easier.

### MAKING THE BRANCHES:

Using your scissors cut your scouring pads into rough ovals of different sizes. You will need about 3 to 5 different size ovals. They should range in size from one and a half inches to 3/8 inch.

Also cut some small triangular pieces from the scouring pads. These will form the tip of your trees.





Take the ovals you have made and tear the layers of scouring pad apart. You should get from 3 to 6 layers per oval. You can also stretch and tear the edges of the oval to break-up their uniformity.

#### ASSEMBLING THE TREES:

- Push your tree trunk into the Styrofoam block. Using a toothpick put a dab of Weldbond on the trunk about 3/4" to 1" from the bottom. Take the largest oval you have a poke a hole through the middle of it. I use an old ballpoint pen. Slide the oval down the trunk to the glue. Put another dab of Weldbond on the trunk and slide another oval down but offset it about 90 degrees. Continue the procedure, working your way up the trunk. As you go up the trunk use smaller ovals. The idea is to create a tapered branch structure without looking like neat Christmas tree. The more "branches" you use the denser the tree will be. Vary them from tree to tree. Poke a hole in the edge of the triangular piece using a toothpick. Glue the triangular piece to the top of the trunk. Spray the scouring pad branches with spray adhesive and then roll in ground foam. After about an hour respray with diluted white glue to ensure the ground foam sticks. Plant your trees.

#### PLANTING YOUR FOREST:

Plant your trees in odd numbered groups. They always look better than even numbered groups. By using different colours and textures of ground foam on your trees, you create variety. Nothing is the same in nature.

Also mix in other pine trees made by other methods. For example; trees made by the twisted wire and rope method. Word of warning though, don't make your trees so different that they don't work together.

Use ground up dead leaves mixed with tea leaves to cover your forest floor. I grind mine up in an electric coffee grinder.



### WOODPECKER MODEL RAILWAYS

8 Joyce Street, Pendle Hill, N.S.W. 2145

Phone: (02) 9636-3855

Fax: (02) 9631-4204

Modelling extras - drill sets No and metric, individual drills, pin vice, slitting discs, etc. Pro-edge knives, blades, saws, etc., scale rules, Evergreen plastic strip and sheet, Slaters plasticard embossed sheets, K & S brass rod and shapes, Badgerflex paints, EF Simply Glues plaster, Fruggle Rock, Solvents etc.

Model Railways - Lifelike N, Lifelike Scene Master Series, Microtrain couplers, Kadee couplers, Preiser people - painted and unpainted, Peco, Atlas and GT track in N and HO, Gaugemaster and CDA controllers, Heljan buildings etc.

Always a range of second hand books, videos, railways etc, available.

#### LENZ DCC System and Decoders now available!

*Why not call in and check us out?*

Monday to Friday 10am to 5.30pm and Saturday 9am to 2pm

P.O. Box 43, Pendle Hill N.S.W. 2145

email [wmr@zeta.org.au](mailto:wmr@zeta.org.au)

ABN 42 436 211 701

NMRA AR  
ACT Division  
How to make  
friends and  
influence  
model  
railroading

## NMRA AR ACT Division Canberra Mini-Convention

Saturday 17 and Sunday 18 September 2005  
Trinity Christian School, 34 McBryde Cr. Wanniasa



#### Saturday 17 September:

- 1 Registration from 8 am to 8:30. Convention will commence at 8.45 am at Trinity Christian School. Convention costs include lunch and morning & afternoon tea. Please let us know of any special dietary requirements.
- 2 Clinics on a variety of subjects, such as styrene, operations, building with cardboard, dirt, DCC and boxcars 101.
- 3 Local layouts will be on display in the convention hall and presentations on them will be given during the day
- 4 Non-railroad Program, including making Christmas cards and a dragon on a rock. Please indicate attendance on the registration form. For more details phone John Prattis on (02) 6291 7898.
- 5 Bring and Buy Table.
- 6 Modelling Competition - public viewing at lunch time only.
- 7 Vendor stalls
- 8 Convention Dinner commencing 6.30 pm Saturday evening with guest speaker Leon Oberg. He has taken a life-long interest in railways. Over the years he has been involved with number spotting, reading, photographing and recording information on the prototype. Leon has worked for the Goulburn Evening Post as a photographer and in 1973 won an award for news photography. He is the author of numerous railway books and articles including: "Locomotives of Australia"; "Australian Rails at Work"; a chapter in "Among their Favourites"; and writes regularly for "Byways of Steam" and the 'Diesel' series

#### Sunday 18 September:

- Layout tours in the morning
- The Canberra Railway Museum operated by the Australian Railway Historical Society (ACT Division) in Kingston and is open from 1 PM - 4 PM.

#### More Information:

All news and information will be available on the NMRA website: [www.nmra.org.au](http://www.nmra.org.au). Check this site regularly for updates. Information on Canberra can be found at [www.visitcanberra.com.au](http://www.visitcanberra.com.au). Note that this is in the middle of Canberra's renowned Floriade festival.

#### Contest Forms

All contest forms are available on the NMRA website: [www.nmra.org.au](http://www.nmra.org.au).

\*\*\*\*\* KEEP THIS PAGE FOR YOUR REFERENCE \*\*\*\*\*

SEND REGISTRATION FORM and TOGETHER WITH  
YOUR CHEQUE OR CREDIT CARD DETAILS TO:

REGISTRATION FORMS and ACCOMMODATION INFORMATION INCLUDED AS A LOOSE LEAF ADDITION IN THIS ISSUE OF MAINLINE.  
ADDITIONAL REGISTRATION FORMS MAY BE DOWNLOADED FROM THE WEBSITE ([www.nmra.org.au](http://www.nmra.org.au))

#### Registrations & Information:

Ms. Jess Brisbane at 21 The Pines Avenue, Narrabundah ACT 2604.  
Phone: (02) 6260 6247. Email: [jessbris@bigpond.net.au](mailto:jessbris@bigpond.net.au)



## The 2<sup>nd</sup> Annual Sydney Railroad Prototype Modeller Meet

The Railroad Prototype Modeller (RPM) Meet is a gathering of modellers interested in building railroad and railroad related models that are modelled after a prototype. Space is available to display models of all scales and prototypes. Works in progress are not only welcome, they are encouraged! There is no minimum detail standard, no contest, no prize or judging - just a gathering of prototype modellers.

**All Prototypes Welcome:**  
North American, Australian, British, etc.

**Sunday, 31 July 2005**  
12:00 - 5:00PM  
Epping Creative Center, Dence Park  
26 Stanley Street, Epping NSW

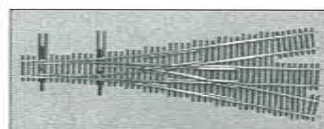
Admission: \$7.00 (\$5.00 with a model for display)

For more information or to RSVP  
Contact: Rob Barker:  
Email: barkerr68@yahoo.com  
Mobile: 0419 762 683

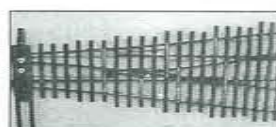
Thanks to the support of NMRA Australia Region  
<http://www.nmra.org.au/RPM/RPM.html>

### **NEW** from Shinohara - Code 83 HO Finescale track DCC ready. **NEW**

With the increase in popularity of digital command control (DCC), Shinohara have just announced a range of DCC friendly points in HO scale Code 83 nickel silver. Shinohara is the first company to produce DCC friendly points in any scale. Please refer to the price list underneath to see the variety of track-work available.



This amazing range of DCC ready track was reviewed in the August issue of Australian Model Railway Magazine.



#### **CODE 83 DCC READY HO NICKEL SILVER**

		suggested retail	each			suggested retail	each
8801	#4 Left Hand Point	34.50		8883	#5 Wye Point	34.50	
8802	#4 Right Hand Point	34.50		8884	#10 Left Hand Point	44.95	
8803	#6 Left Hand Point	34.50		8885	#10 Right Hand Point	44.95	
8804	#6 Right Hand Point	34.50		8887	#2 Wye Point	34.50	
8805	#8 Left Hand Point	37.50		8888	#7.5 Left Hand Curved Point	59.50	
8806	#8 Right Hand Point	37.50		8889	#7.5 Right Hand Curved Point	59.50	
8807	#4 Wye Point	34.50		8890	#2.5 Wye Point	34.50	
8808	#6 3 Way Point	73.50		8891	#5 Left Hand Point	34.50	
8812	#6 Double Crossover	109.95		8892	#5 Right Hand Point	34.50	
8814	#6 Double Slip	102.50		8893	#3 Wye Point	34.50	
8826	#6 Left Hand Curved Point	52.50		8894	#7 Left Hand Curved Point	59.50	
8827	#6 Right Hand Curved Point	52.50		8895	#7 Right Hand Curved Point	59.50	
8828	#8 Left Hand Curved Point	59.95		8896	#8 Double Slip	119.85	
8829	#8 Right Hand Curved Point	59.95					

**SHINOHARA**  
FINE SCALE  
MODEL RAILWAY TRACK

**BERG'S HOBBIES**  
181 CHURCH STREET, PARRAMATTA, N.S.W., 2150.  
Phone (02) 9635 8618. Fax (02) 9689 1840.

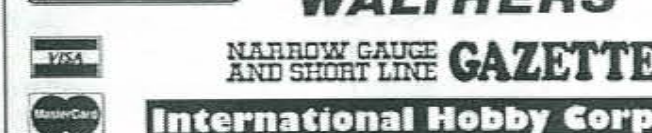
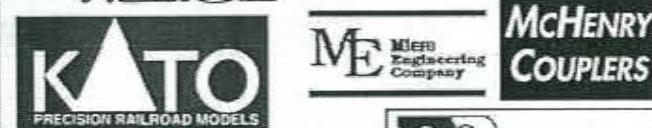
Web site: [www.bergshobbies.com](http://www.bergshobbies.com) \* Email: [mail@bergshobbies.com](mailto:mail@bergshobbies.com)  
Catering to the Australian, American, English, European and Narrow Gauge modeller seven days a week.



More memories of the 7th Narrow Gauge Convention.  
Photos by John Eagles.

**AUSTRAL MODEL CRAFT**

SHOP 15 FAIRLAND STREET, MT GRAVATT QLD 4122  
PHONE [07] 3849 2655 • FAX [07] 3849 8664



Above is just a selection of the brands we carry. We also stock Shinohara, Railline, CBT Shops, Greenmax, Tomix, Con Cor, CT Decals, Bachmann, Heljan, Kibri, Trax, Vollmer and many more.

We are a WALTHERS dealer. We accept Bankcard, Mastercard, Visa. MAIL ORDERS, LAYBYS. Try us for your next order.  
TRADING HOURS: 9.30-1pm TUES, 4pm-8pm THUR & FRI, 9am-4pm SAT

**LARGE SELECTION OF BOOKS TO CHOOSE FROM  
WE SELL BRASS MODELS ON CONSIGNMENT**



## New Products on the Horizon.

- New US company *Tower 55 Products* has just been announced. Owner Brian Marsh of Overland Models Inc. brass fame stated in a press release that the first production will be the UP and BNSF GEVO production locomotives. Currently target will be late 2005. At this moment the prices have not been finalized but the **models will come with sound** as well. When the website is up and running a full list of models, road numbers if available, and initial pricing for the GEVO units will be posted. Pricing for the SD70ACe will be close to the GEVO price, but it will not be announced in June. Same for the 3-unit Turbine which will follow later this Fall if not sooner. This is great news for UP modellers.
- Look out for the *Walthers Gold* series of RTR freight cars including Bethlehem 3 bay coal hoppers, Trinity RD4 coal hoppers and some classic cabooses. In your hobby shop now.
- *Athearn* to make HO MP15AC diesel switchers.
- *Atlas* to release HO EMD MP15DC diesel switchers with and without QSI sound. Due October 2005.
- *Eureka Models*, first rail motor deliveries soon. Look for first AD-60 pics on their web site. 38 class locos announced.



## EXHIBITION & CONVENTION CALENDAR

- STAWELL, GRAMPIANS - VIC.** July 9-10, 2005 at the SES Hall, Sloane St, Stawell. Open: 10am-6pm (Sat), 10am-4pm (Sun).
- CASTLE HILL - NSW.** July 23-24, 2005 at the Harvey Lowe Pavilion, Castle Hill Showground (off Carrington Rd) Castle Hill. Open: 9am-5pm Sat & Sun. Organised by the Hills Model Railway Society Inc.
- CANBERRA - ACT.** August 6-7, 2005. 33rd Model Railway & Scale Model Exhibition at Malkara Special School, Wison Street, Garran, ACT. Open: 9.30am-5.00pm (Sat), 9.30am-4.00pm (Sun).
- BALD HILLS - QLD.** August 13-14, 2005 at the Memorial Hall, Gympie Road, Bald Hills. Open: 9am-5pm (Sat), 9am-4pm (Sun). Enquiries: President (07) 3264 1647 or email rmcq@mixedpk.com. Organised by Railway Modellers of Queensland Inc.
- BEECROFT - NSW.** August 13-14, 2005 at the Beecroft Community Centre, Beecroft Rd (cnr Copeland Rd), Beecroft. (100m from Beecroft Station). Open: 9am-5pm (Sat), 9am-4pm (Sun).
- ESSENDON - VIC.** August 13-14, 2005 at Ukrainian Community Hall, 3-11 Russell Street, Essendon.. Open 10am-6pm (Sat), 10am-5pm (Sun).
- SUNSHINE - VIC.** August 20-21, 2005. Sunshine Model Railway Exhibition at Braybrook Secondary College Sport Stadium, Burke Street, Braybrook. Admission Open 9.30am-5.30pm.
- BRISBANE - QLD.** September 9-11, 2005. The 9th National N Scale Convention. Programme will include clinics, workshops, layout tours, exhibition layouts, traders' stands and a visit to Workshops Railway Museum in Brisbane. For further information refer Website: [nscaleconvention2005.org.au](http://nscaleconvention2005.org.au)
- CROYDON - VIC.** September 10-11, 2005 at Croydon Secondary College 212 Croydon Road, Croydon. Open: 9am-6pm (Sat) 10am-5pm (Sun).
- GOLD COAST - QLD.** September 17-18, 2005 at the Jupiter's Pavilion, Parklands Complex, Parklands Drive, Southport. Open 9am-6pm (Sat) 9am-4pm (Sun).
- MILDURA - VIC.** September 17-18, 2005 at the Irymple Leisure Centre, Karadoc Ave, Irymple. Open: 9am (Sat & Sun).
- TAREE - NSW.** September 17-18, 2005 at the Saxby Sports Stadium, Bligh Street, Taree North. Open: 9am-5pm (Sat), 9am-4pm (Sun).
- HURSTVILLE - NSW.** October 1-3, 2005 at Hurstville Aquatic Centre, Cnr King Georges and Forest Roads, Penshurst.
- ALBANY - WA.** October 1-2, 2005 at Centennial Hall, Lockyer Avenue. Open: 10am-5pm (Sat), 9am-4pm (Sun).
- GLEN WAVERLEY - VIC.** October 1-2, 2005. Melbourne's Model Train Expo & Hobby Show at Brentwood Community Youth Club Hall, Brandon Park Reserve, Ferntree Gully Road, Glen Waverley.
- BLACKHEATH - NSW.** November 5-6, 2005 at Blackheath Public School, Cnr Great Western Hwy and Leichhardt St, Blackheath. Open: 9am-4.30pm (Sat), 9.30am-3.30pm (Sun).

## SEVENTH AUSTRALIAN NARROW GAUGE CONVENTION ALBURY EASTER 2005

By John Eagles

I got off the plane from two months overseas, had a day to recover and then it was on the bus for Albury and the Seventh Australian Narrow Gauge convention. Did someone say narrow gaugers are nuts?

Was it worth the effort? You bet! My first surprise was the weather; it was sunnier and warmer than Sydney. I registered Friday evening, checked out the Bring & Buy and scored some back issues of *Narrow Gauge & Shortline Gazette*. There was lots of great stuff for sale in the Bring & Buy. But if I thought that was good, the Retail Traders Room was heaven. They were still setting up but it was already jam packed with eager convention goers.

In the foyer eight high quality exhibition layouts and modules had been set up. Many of them were new to me. Six of the eight layouts had Australian themes.

One that deserves a special mention is "Tea Tree" by 15 year old Michael Holian. It's an On30 layout with an Australian theme. It was a great first effort which illustrated what could be done on a tight budget using simple techniques. A guy who can build a top layout cheaply is my kinda guy! Michael also gave a workshop called "Beginning in Narrow Gauge" Two points that Michael made in his workshop notes I think should



Michael Holian's Tea Tree. (Photo Gerry Hopkins)

be passed on:

Always keep in mind that you have to please yourself. If you build something and you like it, then it's good. Have fun!

Michael was rewarded for his efforts by being presented with the Youth Award, the NMRA Golden Spike Award and third places in both the model photograph and module section.

The hardest thing about the convention was trying to decide

which sessions to go to. Unfortunately there is never enough time to see everything.

The lectures and workshops were comprehensive. John Dennis's lecture on "The Stannary Hills & Irvinebank Tramways" was superb. Even if you weren't interested in the prototype, John talk and slideshow provided a wealth of ideas for modelling a mining tramway.

Phil Badger's "The Basics of Soldering" demystified this "black art" for me. Phil even stayed back and allowed me to practice some soldering using the techniques he talked about. Perhaps the thing I enjoy most about these conventions is the willingness of people to help novices like me learn.

Likewise we all have to go home and have a go at doing something from what we have learned.

Since I model logging, I just had to attend Steve Pettit's workshop on pine trees. Steve uses the tried and trusted rope and twisted wire method. I've used this method and I thought I'd gotten it down pat. However, Steve had a few tricks up his sleeve. He uses a jig to assemble the trees, hot glue to glue the sisal twine to the florist wire. Then he uses white glue with wet water in a spray bottle.

No matter what kind of trees you are making or the method you are using, giving them a final spray with white glue and wet water stops your trees from losing their foliage.

Geoff Nott worked his magic and left everybody amazed in his workshop on "Creeks, Scummy Ponds & Other Watery Stuff". Geoff's techniques uses common materials such as Blu-Tack, paper, broom straw, sisal twine and artist paints. I think one of the keys to Geoff's success as a modeller is his willingness to experiment with ideas. Again it's a matter of just having a go and seeing what happens.

The key note speaker for the convention was Charlie Getz. Charlie is a long time columnist for the *Narrow Gauge and Shortline Gazette* and a US attorney. If he ever quits his day jobs he should become a stand up comedian. Charlie's chat at the Saturday night dinner had everyone in stitches. But Charlie did you have to let the cat out of the bag and tell the spouses that those brass engines DON'T cost \$39.95? Come on mate, where the solidarity amongst modellers? Only joking, maybe.

Charlie also gave two lectures on "Narrow Gauge Modelling in the 21<sup>st</sup> Century" and "Presenting the Narrow Gauge Layout on a Budget and With Flair".

According to Charlie if, "the prototype (narrow gauge) railroads had the technology of today, they would not only be going strong but would probably be very uninteresting to all of



us.". Charlie had the privilege of visiting John Allen's legendary Gorre & Dephetid Railroad. While acknowledging Allen as one of the great model railroaders of all time, Getz said that by today's standards many of Allen's models were crude. However Allen's great skill was in presentation and the art of illusion. Allen was one of the pioneers in using mirrors to create the illusion of space.

Charlie praised our modelling skills saying it is some of the best he has seen. Boone Morrison made similar comments at the Sixth Narrow Gauge Convention as well.



Photo Gerry Hopkins.

There has been a lot of talk by convention goers about the model contest. One suggestion is to split the categories into two. One for S scale and under and, the other for O scale and above. Others feel that the award for best Australian theme should have been continued from the previous convention.

Another topic of debate about future narrow gauge conventions is whether or not to hold them on the Easter long weekend.

Laurie Green said:" from organizers side the convention seemed to go off very well, with many favorable comments. We had a few minor problems, most caused by the fact of having most of the committee live a couple of hundred miles away. Some of the logistics were a bit difficult but we got there. We tried several new ideas, such as the single clinic stream and the workshops, which we will continue to refine for the Melbourne 2007 convention."

Anyway, without any further ado, the envelopes please. And the winners are:

Structures / Man Made Objects

- |                      |                      |
|----------------------|----------------------|
| 1. Steve Pettit      | Crazy Horse Bordello |
| 2. Graeme Pendlebury | Sawmill              |

- |                       |                       |
|-----------------------|-----------------------|
| 3. Grant McAdam       | L. Strauss & Sons     |
| <b>Dioramas</b>       |                       |
| 1. Laurie Green       | Maintenance Shed      |
| Equal 2. Peter Smith  | Milang Cheese Factory |
| Equal 2. Steve Pettit | The Blacksmith Shop   |

- |                                       |                          |
|---------------------------------------|--------------------------|
| <b>Modules</b>                        |                          |
| 1. Geoff Nott                         | Logging Module           |
| 2. Kim Marsh                          | One Rock Island          |
| 3. Michael Holian                     | Tea Tree                 |
| <b>Diesel &amp; Other Locomotives</b> |                          |
| 1. Steve Pettit                       | Railtruck                |
| 2. Peter Grace                        | 'Petrie'                 |
| 3. Geoff Nott                         | Backwoods Logging Diesel |

- |                          |                         |
|--------------------------|-------------------------|
| <b>Steam Locomotives</b> |                         |
| 1. Bernard Snoodyk       | D&RGRR 0-6-0T #105      |
| 2. Adrian Gunzburg       | C Class 4-6-2 #18       |
| 3. Bernard Snoodyk       | Bagnall 0-4-0 Excelsior |

- |                              |                       |
|------------------------------|-----------------------|
| <b>Freight Rolling Stock</b> |                       |
| 1. Steve Pettit              | On3 Wood Block Car    |
| 2. Laurie Green              | D&RGW Stock Car #5793 |
| 3. Roger Hill                | Timber Bogies & Loads |

- |  |                      |
|--|----------------------|
| <b>Passenger &amp; Non Revenue Rolling Stock</b> |                      |
| 1. Geoff Nott                                    | Saw Filers Car       |
| 2. Laurie Green                                  | D&RGW 'Silver Vista' |
| 3. Geoff Nott                                    | Caboose/Work Car     |

- |                                 |          |
|---------------------------------|----------|
| <b>Youth in Modelling Award</b> |          |
| Michael Holian                  | Tea Tree |

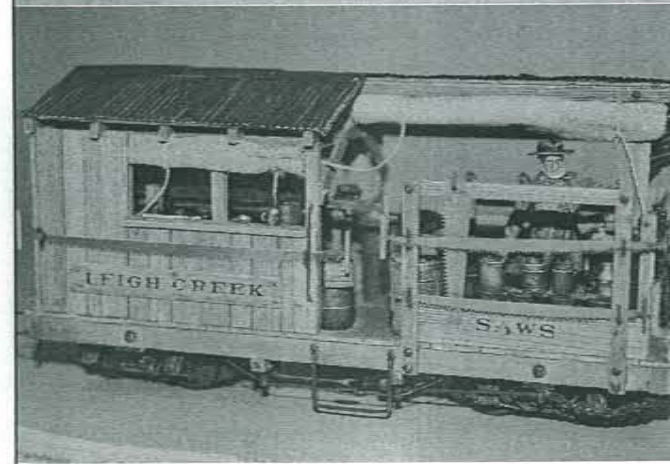
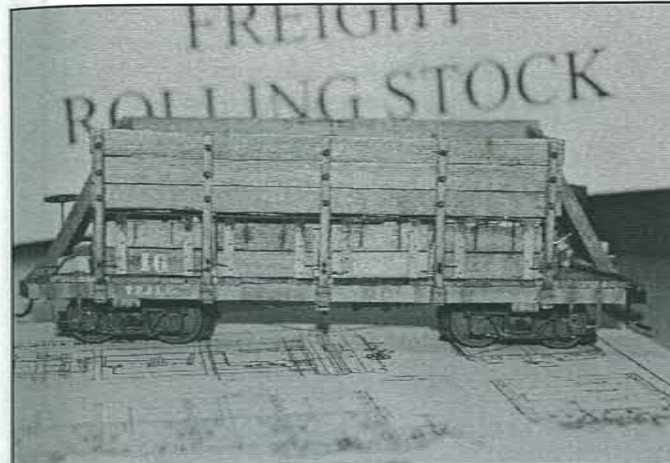
- |  |            |
|--|------------|
| <b>Narrow Gauge Downunder Award - "Spirit of Narrow Gauge"</b> |            |
| Steve Pettit   | Rail Truck |

- |                                 |                |
|---------------------------------|----------------|
| <b>Best in Show - Fry Award</b> |                |
| Geoff Nott                      | Logging Module |

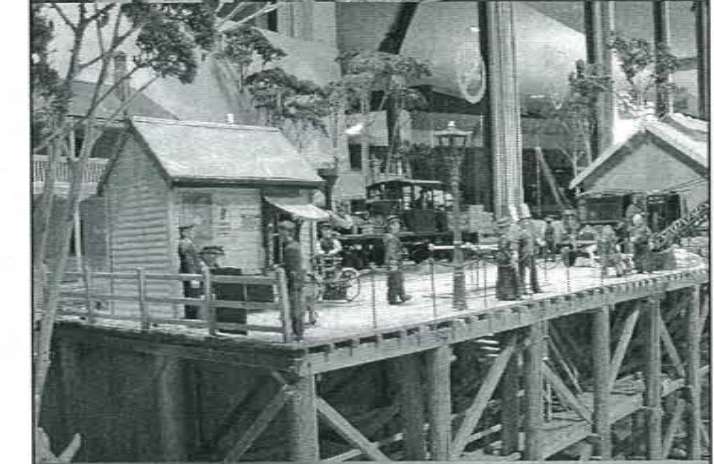
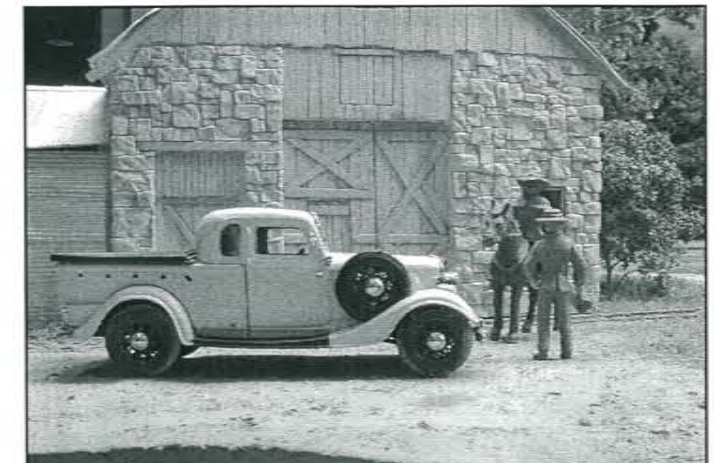
The results in the Photo Contest were;

- |                    |                           |
|--------------------|---------------------------|
| <b>Prototype</b>   |                           |
| 1. Peter MacDonald | Abandoned Branch Line     |
| 2. Grant McAdam    | NGG 16                    |
| 3. Peter MacDonald | Disaster at Bacchus Marsh |

- |                          |                                  |
|--------------------------|----------------------------------|
| <b>Model</b>             |                                  |
| 1. Mario Rapinett        | Swaggy                           |
| 2. John Hunter           | Hill Valley Garage               |
| 3. Mario Rapinett        | Bob's Bait                       |
| 3. Micahel Holian        | Climax #5 entering Hill End Yard |
| <b>Computer Enhanced</b> |                                  |
| 1. Laurie Green          | 'Working Overtime'               |



Photos above by John Eagles



Photos above by Gerry Hopkins.



# The Signal Box Model Railways

8/15a Great Western Hwy  
Blaxland  
NSW 2774

Phone (02) 4739 - 1799

All mail and phone orders welcome.  
Open Tuesday - Saturday

All credit cards and EFTPOS welcome.

We buy, sell, trade and consign second  
hand models and modelling equipment.

With contacts to all major model  
brands!

## THE N SCALER N SCALE BY MAIL

Send Large SSAE for Lists  
of Available Items

We stock mainly ATHEARN, ATLAS, KATO  
and MICROTRAINS. Whilst we specialise in N  
Scale, we do stock some HO.  
Check for availability.

PO Box 254  
Rydalmere, NSW, 1701  
Phone / Fax (02) 9832 8913  
Mobile 0407 217 927

www.ozemail.com.au/~kerr43/nscaler.html  
email: kerr43@ozemail.com.au

Bankcard - Visa - Mastercard - Amex  
(minimum \$25.00)

Full EFTPOS facilities available at exhibitions.



**Your Model Railway Specialist**

Bankcard/Visa/Mastercard/Eftpos Accepted  
MAIL ORDER WELCOME

OPEN EVERYDAY EXCEPT PUBLIC HOLIDAYS

SHOP 5/449 MAIN NORTH ROAD ENFIELD S.A. 5085

Phone: (08) 8349 7464 Fax: (08) 8349 7463

www.junctionmodels.com.au

## DCC Decoders

Erik Bennett

### Reader Warning

This article contains low level technical information, including occasional buzzwords.

### Introduction

DCC is commonplace in our hobby today. Most modelers buy and install a DCC system, install some decoders in locos and everything runs fine. You never have a problem.

Many people like knowing how things work. For example, many people are interested in basically how their car works. You don't need to know how your car works to be able to drive but if you do, it certainly helps you make the best decision about what to do if there is an issue.

This article explains how decoders work and explains why some things happen. Like cars, you don't need to know this to run DCC but it is interesting and can help if there is an issue.

### Principles of DCC

Let's revise the fundamentals:

All locos have a decoder which has a unique address. The track power consists of a series of sharply rising and falling voltage pulses. The size of the pulses provides the power to run the motor and the pattern of the pulses contains the digital signal that the decoder reacts to.

The track power is on all the time.

The power is picked up by the loco decoder, not the motor. To make a loco operate, the throttle/command station sends a DCC signal to a unique decoder address and commands it to make the motor run or turn on the lights or blow the horn. The DCC signal consists of a defined pattern of pulses. All decoders pick up all DCC signals. Only the decoder that is addressed by the signal reacts to the signal. All other decoders ignore the signal.

Most decoders can run on either DCC or DC. They test for a DCC signal and, if they cannot detect one, automatically presume they are on DC.

### Decoders

Decoders consist of four modules, five if they also have sound.

#### Power Supply module

The power supply module takes the track power and produces a high level DC voltage, a low level DC voltage and a small sample of the pulse waveform - the DCC signal.

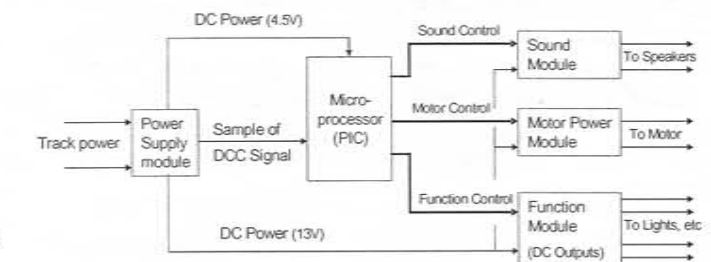
It passes the high level DC voltage, about 13V, to the Motor Module, the Function Module and the Sound Module. It passes the low level DC voltage, about 4.5V, to the microcontroller module and the sample of the DCC signal also to the microcontroller module.

#### The Microcontroller module

This is the heart of the decoder. The microcontroller is a microcomputer with control electronics. Under the control of a computer program running in its central processing unit, it reacts to voltage levels on its inputs and produces voltage levels on its outputs.

Designers specify the computer program to make the microcontroller do what they want it to do. Microcontrollers are found in hundreds of day to day goods, eg, your washing machine, your microwave, your TV handheld, your watch, your mobile phone, your car, your dishwasher, etc.

The microcontroller in your kitchen microwave reacts to the buttons you press and makes the microwave react accordingly. The microcontroller in your decoder reacts to the throttle commands sent to it and makes your loco react accordingly. It is actually the program running in the microcontroller that has all the intelligence. This is why decoder manufacturers can release new versions of a decoder that look the same but which can do more improved things. They just improve the program. Like Microsoft Windows.



Decoder Block Diagram

The microcontroller in your decoder runs on about 4.5V DC. If the voltage drops to much less than that, the microcontroller doesn't run, ie, the program doesn't execute, so all your loco's lights go out and it stops. Then when power is restored, the microcontroller program starts up again and the first thing it does is stop everything until it sorts itself out. Then it starts reacting to the DCC signal.

Many decoders have a brown-out circuit to keep the microcontroller supplied with power, therefore the microcontroller program running, if there is a temporary power interruption caused by dirty track. The circuit uses a capacitor, an electrical storage device. Many decoders have good circuits and are excellent on dirty track. Some, such as Soundtraxx DSD are not. They don't have good brown-out circuits. There is a modification published by Soundtraxx that describes how you can fit a capacitor to DSX (not DSD) decoders to cure the dirty track problem. It works well.

When the microcontroller program is running, it listens to the DCC signal sample sent to its inputs. If it detects a nice clean DCC signal, it is happy. If it detects a DCC command sent to its address, it reacts. If the command is to turn on or off a function, the microcontroller organizes that and that's the end of it. If the command is to make the loco move, it organizes that



but immediately starts listening for further motion commands. If it does not detect a further motion command sent to its address, after a little while, it stops the loco.

If the microcontroller program does not detect a DCC signal at all, it presumes it is on DC. The program checks CV29 and if it is set to DC Enabled, the microcontroller goes into DC drive mode.

#### **Motor Power Module**

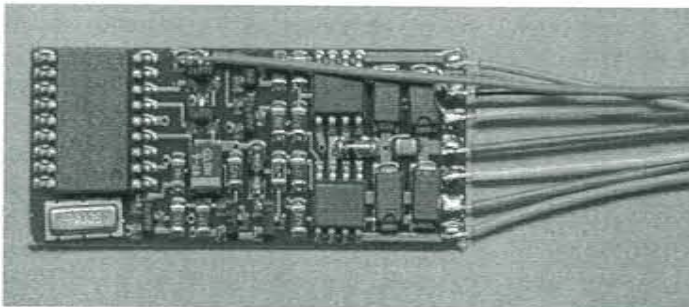
The motor control module is a mini pulse power pack. It is a scaled down version of the commercial pulse throttles that are available. It gets its power to drive the motor from the high power voltage supply and receives control signals from the microcontroller. Under DCC, the microcontroller interprets the motion commands sent to it in the DCC signal and tells the motor module which direction to drive the motor and how much power to provide the motor.

Under DC, the microcontroller interprets the polarity and size of the incoming track voltage to be the polarity and size of the drive to the motor module. Thus, in normal DC operation on a DC layout, the loco responds to the polarity and size of the drive voltage as specified by the DC throttle.

Note that if a loco is on a DCC layout and the microcontroller cannot detect a good DCC signal, it will think it is on DC. So it will interpret the size of the incoming voltage as the DC throttle setting and command the motor module to supply the motor accordingly. Unfortunately, on a DCC layout, the size of the supply is the DC equivalent of about 14V, so the loco moves at full speed.

#### **Decoders on DC**

The motor module operates under the control of the microcontroller, therefore cannot do anything unless the microcontroller program is running. It takes about 4.5V for the microcontroller to run. Thus, the throttle on a DC layout needs to produce at least 4.5V to get the microcontroller and its program to start so that it can know that it is on a DC layout. It then supplies the track voltage of 4.5V to the motor which,



NCE D13SR

being fairly high, often results in a jerky start. Similarly, the microcontroller (and the loco) will stop when the track voltage drops below 4.5V.

Standard decoders, therefore, run on DC but aren't good at slow running. Soundtraxx decoders don't run at all on DC – because they are designed not to. Decoders, including Soundtraxx, are not damaged by running on DC. In fact, as described by the

above, the power supply module converts the track power to DC to run all the major components of the decoder.

#### **The Function module**

The function module is a simple bit of circuitry. It provides a +12V common output and a number of "function outputs" equal to the number of functions the decoder has. Function outputs are connected to lights and other things on your loco.

Current only flows through the function outputs if a circuit is made through the function module. When a function is off, the function output, which is the negative end of the circuit is "floating", ie is not connected (electrically) to anything. So no current can flow and the light is off.

When a function is on, the function output is connected to the negative side of the power supply. Therefore, a circuit is made and current flows out the function output, through the light and in the positive common.

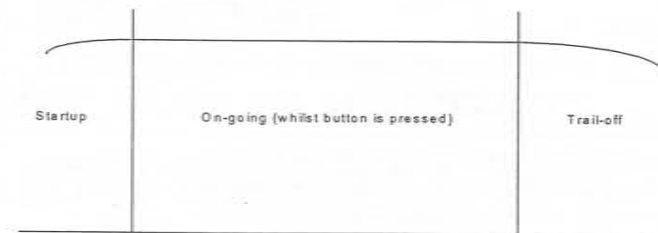
The microcontroller responds to DCC commands to turn on or off a function by commanding the function module to connect that particular function to the power supply negative – or not.

In modern decoders, the microcontroller program is a bit cleverer. It looks up a series of tables stored in its memory to decide the nature of the function. For example, if it's a blinking light, as programmed by CV programming, the microcontroller sends a pulsating control signal to the function module telling it to complete the circuit or not. Thus the circuit is made and broken at the pulsating rate. Therefore the light pulses. If you program the function CV to be a gyro light, the microcontroller sends a similar pulsating signal to the function controller but in a sequence cleverly programmed so that when we view the effect, it looks like a gyro light.

#### **The Sound module**

This module consists of a number of sound files, some electronics to play the files and an audio amplifier to drive the speakers.

The sounds are samples of the original loco sounds, digitalized and stored in computer wave files (.wav). All sounds that you hear on your computer, your mobile phone, your car beeper, your VCR beeper, etc, etc, start life as wave files. For space reasons, they may be compressed into MP3 or other types of sound files. The best reproduction is produced from wave files.



Diesel Horn Components

The sounds differ in nature. Their duration is often quite short. A brake pressure let-off only lasts about half a second. So a brake let-off would be stored as a small sound file lasting half a second. A diesel horn consists of three sounds, the startup, the

ongoing blast and the trail-off. So the horn sound is stored as a startup file which might last half a second, the trail-off which might last one second and the ongoing blast. The ongoing blast is a constant sound and is treated differently from the startup and trail-off. It is usually quite a short sample of the ongoing blast, maybe half a second.

When you press the horn button on the throttle, the microcontroller selects the horn startup sound file and commands the sound module to play it – for half a second in our example. Then, immediately following the startup sound, the ongoing blast is played, but it is looped, ie, played over and over for as long as you hold down the horn button. When you release the horn button, the trail-off sound is played – for one second. The reading of one sound file and the reading of the next is done at computer speed, and we humans cannot detect the crossover. So what we hear when the horn button is pressed is a startup, ongoing sound for as long as we hold down the button, then a trail-off.

Other sounds are treated similarly, ie, those that are specific in nature are stored and played in their entirety and those that are ongoing are stored as a fragment and played and replayed in loop mode.

In a steam decoder, the steam chuff is stored as a sample of a whole chuff. As the loco speed is increased, the rate at which the chuff sound is looped increases and the duration shortens. A diesel engine sound is stored as a sample of the diesel exhaust pulse. As the loco speeds up, the loop rate is increased and the rate at which the sound fragment is read out of memory is increased, which increases its frequency. The effect in each case is that we hear the loco speed up. In practice, there are a number of samples of the exhaust notes so that sounds at various stages of startup and running can be simulated.

To produce the sound of a diesel or steam engine working hard, the volume of the sound may be increased and, in addition, the tone changed. The sound processor changes the tone in the same way as you can change the tone on your CD player. The digital wave file is played but certain parts of the sound spectrum are amplified more than others so we hear the sound differently. Thus a decoder can make the diesel or steam loco sound like the loco is really working hard just by modifying the playback of the original wave file.

In summary, the sound module in decoders stores wave files which are digital fragments of the original sounds. The playback electronics controls when the sound files are played and whether they should be stand-alone sounds or looped. The playback electronics also controls the rate at which sounds are looped and the timbre or tone of the sounds.

Back to our in-depth study of the decoder, the program running in the microcontroller controls which wave files are to be played and how the sound is to be played and/or enhanced. The end result is supplied as an audio signal to the audio amplifier which is amplified to drive the speaker(s).

Modern sound decoders have benefited from technology and have lots of memory available to store many different sound fragments. They also have very well developed programs

running in their microcontrollers which are able to synchronize the sound processing with the motor control. QSI is excellent at this and produce specific decoders tailored to the loco they run in. The result is extremely prototypical sound for a specific loco.

#### **Back EMF**

Back EMF is a law of physics and nothing to do with any legal suit. Back EMF is the voltage produced by any spinning motor. It's called back EMF because it counters the voltage that is applied to make the motor spin.

The motor module uses a DC pulse to make the motor spin, just like the commercially available pulse throttles. The pulse is on and off at a rate typically 15625 times per second. Back EMF decoders, eg, Lenz LE1035, Loksound, CT-Electronic, etc, have clever electronics which, during the time the pulse is off, measures the amount of back EMF voltage the motor is supplying. Therefore they can tell how fast the motor is turning relative to how fast they told the motor to turn. The microcontroller can work out the difference and therefore tell whether the motor is under load or not.

If the train is going uphill and the motor is under load, the microcontroller can send more power to the motor to compensate, or change the tone of the steam or diesel exhaust note to make it sound like it is working, etc.

Similarly, when going downhill, the microcontroller can detect the opposite and reduce power to the motor or, in a sound decoder, make the engine note go to idle.

As well as the great benefits to sound decoders in adjusting the tone of the exhaust note, back EMF enables the motor control module to have fantastic control over slow running. At crawling speed, where the motor is most affected by slow running friction variations, the decoder is able to instantly react to any change in motor speed by applying more or less power. The result is extremely smooth low speed operation.

#### **Runaways**

Runaways hardly ever happen. Only a few layouts experience them and those that do only experience them occasionally. A layout may have a number of locos parked with only one loco being addressed by the driver/command station. Suddenly, with no warning, one or more parked locos may move or blow their horn or turn their lights on.

Runaways are caused by electrical noise or problems with the layout power bus which generate false DCC signals or change the shape of a valid DCC signal.

#### **Electrical Noise**

Electrical noise is defined as unwanted electrical interference which affects the signal in whatever system we are using. It is not confined to DCC.

Noise can be produced by external influences, eg, local industrial machines, radio towers, fluorescent lights, mains power lines, CB radios, ordinary radios, TV sets, etc. Everyone has experienced buzzes and crackles on radios and cordless telephones. Electrical noise is always around us and can affect our DCC layouts.



Noise can also be produced by the conductors used for the layout power bus. The DCC signal is a pulsed electrical waveform and contains some components at a very high frequency. When you have high frequency systems, the conductors carrying the signal exhibit characteristics that are not present with DC. The characteristics that make a power bus a noisy electrical environment are stray capacitance between the conductors of the bus, inherent inductance along the length of the conductors and electrical reflections. Electrical reflections are produced when the signal from the command station is reflected by a load, such as a decoder, or the ends of the power bus itself. The effect is that the original signal then becomes mixed with the reflected signal and result is a confused signal on the bus.

The bottom line is that just like white light produces a spectrum of many colours, electrical noise produces a spectrum of many frequencies.

Consequently, one reason for runaways is that noise has produced a spectrum of frequencies which looks like a valid command to the microcontroller in a decoder. The decoder reacts to the command and the loco moves or blows its horn or turns its lights on.

The other reason for runaways is that the DCC signal, which is supposed to be sharply rising and falling pulses, is smoothed so it does not look like DCC. The microcontroller therefore thinks it's on DC and tells the motor module to move (at full speed.)

#### Consider the following analogy:

You are in a large hall, standing up near the stage. The hall is filled with a silent audience, therefore is not reverberant. Standing around the walls is a group of listeners. It is a very good listening environment.

You call out in a loud, clear voice: "You are on DCC, You are on DCC, You are on DCC....." There is no reverberation and the listeners all around the walls hear you clearly, therefore know they are on DCC. When you call out: "Number 15, you are on DCC and move a little bit to the left", number 15 clearly hears you and reacts. No-one else moves.

This is the equivalent of a good electrical environment for DCC.

Suddenly, there is a commotion somewhere in the hall whilst you are calling. Even though the commotion might be substantial, the good listening environment still enables all listeners to hear clearly.

This is the equivalent of a short circuit or derailment happening on a good DCC layout. There is no runaway or detrimental DCC effect (other than the short). You fix the derailment and continue.

Now consider a hall in the middle of noisy construction zone. The listeners strain to hear. Now if there is a commotion in the hall, a listener may not hear clearly, so he doesn't know whether he is on DCC or not. Therefore he defaults to DC and a runaway happens.

Now consider an empty hall with the listeners only. An empty

hall is very reverberant and when you call out, the reverberations caused by reflected sound make it hard for all listeners to hear clearly. If the hall is in a construction zone, it makes it worse. If a loud construction worker calls out and is heard inside the hall, it is possible that number 42 thinks it is you calling to him. So he moves and produces a runaway.

A reverberant hall in a construction zone is the equivalent of a DCC layout where the characteristics of the layout wiring are unsuitable. These sorts of layouts are prone to runaways. They are probably teetering on instability, meaning that most of the time, trains run OK. But every now and then, a derailment causes a loco innocently standing in a yard to take off or blow its horn or turn on its lights.

#### Demonstrating Runaways

You can make them happen on your layout! Take any loco although you get best results with a loco with dirty wheels. It's easiest to produce the DC type runaways, so make sure the loco decoder is programmed to enable DC in CV29.

Place the loco on the layout, grasp the loco with your hand and jiggle it gently. The idea is to make intermittent contact between wheels and track. It might take a few minutes but after a period of jiggling you will detect momentary starts of the wheels. It's like getting bites whilst fishing. If you don't get any bites after a minute or two, try a loco with dirtier wheels or a dirtier section of track.

When you get a bite, you have simulated a runaway, probably a DC related runaway. Disable DC in CV29 and jiggle again. You may find it hard to get any more bites. Turn DC on again and the bites return.

The experiment is artificially creating electrical noise – a lot more than would normally be generated by, say, running against a point. It's a good indication of the stability of your wiring. If it is hard to get a bite, you have a stable layout. If it's easy, you MAY have a susceptible layout. Whatever the result, if you have never had runaways, you do not have a problem. (I was demonstrating runaways one day and got a lot of bites, however I have NEVER had a runaway and I have all my decoders set to enable DC.)

#### What to Do About Runaways

As was stated earlier, most layouts never have runaways. Most layouts, therefore, do not have to do anything.

For the few layouts which do experience the occasional runaway, the first step is to program DC off in CV29 in all decoders. This removes the ability for DC runaways to occur. To address electrical noise, unfortunately, there is no easy means of determining the specific problem. Electrical noise can be kept to a minimum by:  
 Keeping the cab bus and the power bus well separated. This minimises stray influence of one over the other.  
 Keeping the two power bus conductors as close together as possible. This minimises the net effect of induced noise. If possible, loosely twist them lengthways to further reduce the impact of induced noise.

#### Termination

If a layout is still experiencing runaways, the power bus can be "terminated" to reduce reflections. This is an electrical expression meaning making the electrical environment most suitable to the signal conditions. CB owners, boat owners and car owners with new radios or antennas need to match the radio to the antenna by making a "trimmer" adjustment. The adjustment is usually made through a little hole found at the back of the radio near the antenna connector and it terminates the radio signal path properly, resulting in the best transmission/reception.

If needed, a DCC layout can be tuned to reduce reflections by soldering a capacitor in series with a resistor and connecting them between the two conductors of your power bus. There are a number of combinations of capacitor and resistor and the best combination varies from layout to layout. It's a matter of trying for the best combination, although if runaways stop with the first combination, that's the best combination.

Combinations are:

120 ohm resistor in series with 0.01 F capacitor.

120 ohm resistor in series with 0.1 F capacitor.

22 ohm resistor in series with 0.1 F capacitor.

Minimum ratings should be 36V for capacitors and ½ watt for resistors.

#### Conclusion

DCC is a stable technology and, like other modern technologies, its facilities are improving as technology advances. More memory and improved miniaturisation result in smaller decoders programmed to do cleverer things. (An example is the Doppler effect available in QSI decoders.)

In the future, two-way communication will be commonplace, ie, the decoder sending information to the command station and/or to other decoders. Some decoders are already doing this. The concept opens up possibilities limited only by the imagination of the manufacturers' microcontroller programmers.

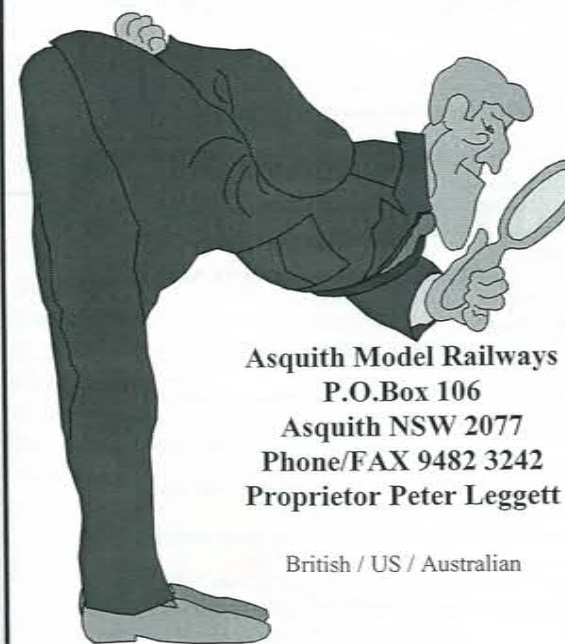
So, exciting times for the DCC player. In a few years, many modellers won't know that once upon a time, people controlled trains with DC throttles.



## LOOKING FOR THOSE ELUSIVE DETAIL PARTS?

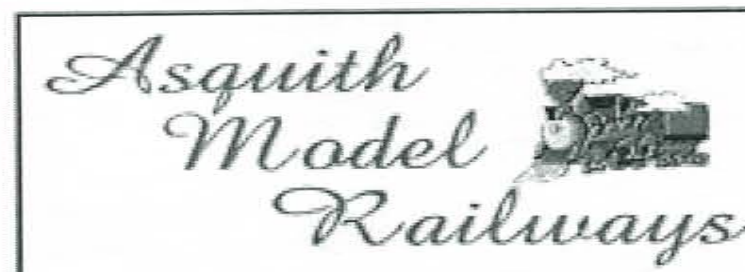
THEN LOOK NO FURTHER THAN

*Come and visit us in our  
new premises located at;*  
**Unit 4 / 113 Hunter Street  
 HORNSBY NSW 2077**



**Asquith Model Railways  
 P.O.Box 106  
 Asquith NSW 2077  
 Phone/FAX 9482 3242  
 Proprietor Peter Leggett**

British / US / Australian



- Australian Model Craft Kits & Accessories
- White Metal Figures & hard to find castings
- Etched Brass Fencing/Gates & other treasures
- Fine Scale Screws, Nuts, Washers (brass & Steel)
- Peco fine scale code 75, 83 track & turnouts
- Romaford gears, wheel & worm sets
- Narrow Gauge kits & accessories
- Woodland Scenics – large range
- '0' Scale kits & accessories
- Floquil paints – new stock
- Wide range of Decals



## NMRA Australasian Region Library List

May 2004

LEGEND: C = Clinic & How To P = Prototype L = Layout Tour N = Narrow Gauge I = Information

VT1*	C - Painting Backdrops with a Dirty Brush	1941 / SP The Coast Line
VT2*	C - Perfect Decals	VT102 P - Union Pacific - UP Challengers / UP Big Boys / UP Steam
VT3*	C - Modelling Tips & Tricks	VT103 P - Union Pacific - UP Turbines of the Wasatch / UP Mighty Turbines / UP Trilogy
VT4*	C - Freight Car Loads	VT104 P - Santa Fe - Challenge for Tomorrow / Vintage Diesels / SF, The Diesel Loco
VT5*	C - Styrene Construction/Casting	VT105 P - This is my Railroad - SP Diesel Version / SP Daylights, Cab Forwards & Early Diesels
VT6*	C - Planning Realistic Operations	VT106 P - UP Last of Giants / UP 6900 Centennials
VT7*	C - Detailing Passenger Car Interiors	VT107 L - Lou Sassi West Hoosac GMR#23/ Lee Nicholas Utah Colorado GMR#27
VT8*	L - Kansas City Convention 1998 Layouts Tours - David North	VT108 P - Glory Machines Vol 3 / Glory machines Vol 4
VT9*	L - San Jose Convention 2000 Layouts Tours - David North	VT109 P - UP Steam over Sherman / Otto Perry's Santa Fe
VT10*	L - St Louis Convention 2001 Layouts Tours - David North	VT110 P - UP Battle up Sherman Hill / Pennsy Racetrack 1940-1980
VT11*	I,C - Worlds Greatest Hobby / Building Your First Model Railroad	VT111 P - D&RGW, SF & BN Joint Line / UP Vintage West 1960-1980
VT12*	L - NMRA British Region at Large / NMRA British Region 1945 - 1995	VT112 P - Today's Chicago Railroads
VT13*	L - Gateway 2001 Convention Layout Tours - Gerry Hopkins	VT113 L - Madison Convention 1997 Layout Tours
VT14*	L - US Layout Tours - All About Trains, Volumes 1-6	VT114 P - Railfanning the Silverton
VT15*	L - US Layout Tours - All About Trains, Volumes 7-13	VT115 P,N - Around the Narrow Gauge Circle
VT16*	L - US Layout Visits 1990 - John Saxon	VT116 P,N - The Rio Grande Southern / The Denver & Rio Grande Western
VT17*	L - Aust Region Layout Tours #7 - Gerry Hopkins	VT117 C - Victorian Div of NMRA AR / Bulla Convention 1994 Clinics
VT18*	C - Narrow Gauge & Short Line Convention in Aust 1990 - Gerry Hopkins	VT118 L - Franklin & South Manchester Part 1 GMR #2
VT19*	P,L - San Diego 1999 incl Tehachapi Loop: Proto & Layout - David North	VT119 L - Tuolumne Forks Railroad GMR #16
VT20*	P,L - St Paul 1999 & San Antonio 1999: Proto & Layout - D North	VT120 L - Ray & Renee Grosser's Soo Line GMR #31
VT21*	C - Aust Region Westmead Convention 1993: Tony Koester Clinics - Kevin Brown	VT121 L - John Gray's UP Cheyenne Div GMR #36
VT22*	C - Aust Region Marayong Convention 1995: Allen McClelland Clinics - Kevin Brown	VT122 P,C - The Appalachian Coal Industry - Modelling the Prototype
VT23*	L - Home Layouts: Geoff Nott 1989 & Sowerby Smith 1990 - Gerry Hopkins	VT123 P,C - Logging Railroads - Modelling the Prototype
VT24*	L - Aust Region Convention Layout Tours 1993 & 1995 - Kevin Brown	VT124 P - UP Cheyenne to Salt Lake
VT25*	C - Aust Region Thornleigh Convention 1998: Clinics - D North	VT125 L,N - Red Stag Lumber Company
VT26*	C - Aust Region Macquarie Uni Convention 1991: Clinics Pt.1 - Roger Johns	VT126 P - Santa Fe Mojave Sub Division, Caliente to Mojave
VT27*	C - Aust Region Macquarie Uni Convention 1991: Clinics Pt.2 - Roger Johns	VT127 L - Franklin & South Manchester Part 3 GMR#39
VT28*	L - NZ Waitematai Convention 2002: Layout Tour - Gerry Hopkins	VT128 P,N - The Durango & Silverton
VT29*	L - Home Layouts: Merv Smith & Fred Gill - Gerry Hopkins	VT129 P - Railfanning Southern California in the 50's
VT30*	L - Fort Lauderdale Convention 2002: Layout Tours - David North	VT130 P,N - Twilight of the Rio Grande / Switching along the Rio Grande / Work Train to Silverton
VT31*	L - John Allen's Gorre & Daphetid RR - NMRA Tape Slide Clinic	VT131 P - The New York Central Collection
VT32*	I - NMRA Achievement Programme Explained	VT132 P - Steam in St Louis 1990 / Sierra Railway
VT33*	P - Great Northern Vol 1	VT133 P - The Blue Mountain & Reading/From the Redwoods to the Boardwalk/Illinois Rail Museum
VT34*	P - Great Northern Vol 2	VT134 P,N - 50's Memories of the Rio Grande Narrow Gauge
VT35*	P - Great Northern Vol 3	VT135 P - Santa Fe's Curtis Hill
VT36*	P - The Milwaukee Road Vol 1	VT136 P - Cass & Mower Logging Trains
VT37*	P - The Milwaukee Road Vol 2	VT137 P,N - Rio Grande of the Rockies
VT38*	P - The Milwaukee Road Vol 3	VT138 P,N - Gunnison on the D&RGW
VT39*	L - Utah Midland - GMR#4	VT139 P - The EMD FT103 Diesel Story
VT40*	L - L&N Henderson Div - GMR#9	VT140 L - Franklin & South Manchester Part 2 - GMR#24
VT41*	L - Cumberland Valley - GMR#10	VT141 P - The Uintah Railway
VT42*	L - Virginian & Ohio - GMR#11	VT142 P,N,C - Building the RGS Vol 2 (Durango)
VT43*	L - Piedmont Div of WM - GMR#12	VT143 P - Great American Train Rides Vol 2
VT44*	L - Yosemite Valley - GMR#15	VT144 P,N - Little Engines of New Zealand / The Two Foot Gauge Tramway
VT45*	L - Cat Mountain & SF - GMR#17	VT145 P - Chesapeake & Ohio Steam Locomotives / Streamliners of Yesteryear
VT46*	L - Erie Railroad - GMR#18	VT146 P - New York Central - An Insider's View / Steam Across America Vol 1 - The East
VT47*	L - F & SM - GMR#24	VT147 P - New York, New Haven & Hartford / A History of the Alaska Railroad
VT48*	P - Rock Island Railroad (Pentrex)	VT148 P - On the Track - Lifeline of the Nation/225,000 Mile Proving Ground/ Railroads & National Defence
VT49*	P - BSNF Sand Hills Sub	VT149 P - Great American Railroads V1,2&3 Golden Spike/ Nickel Plate Story/ Milestones of Progress/Railroads & National Defence/The Big Train/Fast Freight
VT50*	P - All Aboard Series Vol 2	VT150 P - Great American Railroads Vol 4 Operation Reading/On the Track/225,000 Mile Proving Ground
VT51*	P - All Aboard Series Vol 5	VT151 P - Great American Railroads Vol 5 Easy Does It/Something for Everyone/Coast to Coast In 48 Hours
VT52*	P - Rock Island Railroad (Green Frog)	VT152 P - Great American Railroads Vol 6 End of an Era / Thundering Rails / Ichabod, the Man Without a Head
VT53*	L - Forks Creek Central - Ron Morse	VT153 P - Great American Railroads Vol 7 Train Wrecks and Stories/ Tomorrow's Railroads/ Progress On the Rails
VT54*	P - California's Baldwin Diesels	VT154 P - Great Northern Vol 2 / Tracks Ahead Episode 301
VT55*	P - Santa Fe's Raton Route	VT155 L - AMRA Exhibition Liverpool 2001 / Model Railways of Australia 1992
VT56*	L - Santa Cruz Northern GMR#35	
VT57*	L - ATSF Argentine Div GMR#29	
VT58*	P,N - East Broad Top	
VT59*	P - Classic Chicago Railroad	
VT60*	P - All Aboard Series Vol 3	
VT61*	P - SP's Central California Mainline	
VT62*	P - NYC - The Beach Collection	
VT63*	P - Union Pacific	
VT64*	P - Southern Pacific - Last Cab Fward over Donner Pass / SP	

VT156	P - Classic Steam of the 20's - 40's / Steam in the 50's / Steam in the 50's & 60's	VT183 P - The Monongahela Railway / CN North America Vol 1
VT157	P,N - Rio Grande Odyssey Part 1	VT184 P - Diesels on the UP / Iron Horse & Steel Men of the San Juan
VT158	P,N - Rio Grande Odyssey Part 2	VT185 P - Steam up Mt Rainer / Railroads and Mining Camps
VT159	P - Diesel Power on the Southern Pacific	VT186 P - Tehachapi Loop / The Empire Builder Route
VT160	L - New England Berkshire & Western GMR#25	VT187 P - Farewell to SF Steam, SF Chief & Pacific Electric / SP Power on Soldier Summit
VT161	L - Allegheny Midland GMR#14	VT188 P - The Grand Canyon Railway Vol 1 & 2
VT162	L - M&K Division of the B&O GMR#5	VT189 P - Challenger through the Rocky Mountains / Lehigh Valley Railroad
VT163	P - Rails in Kansas City Part 1 - 1998	VT190 P - Diesel Power on the Santa Fe / Flangers, Spreaders and Steam Snowplows
VT164	C - Scenery Clinic by Woodland Scenics	VT191 P,L - Missouri, Kansas & Texas Railroad / Model Railroader Layout Tour Vol 2
VT165	P,C - BNSF Stevens Pass / Scenery Tips No 3	VT192 P - Marathon of Steam Vol 3
VT166	P - UP LaGrande Subdivision / UP Big Boys Classic Collection V2	VT193 P - NYC The Great Steel Fleet 1928-1962 / New York Central Vol 1
VT167	P - SF Warbonnets through Raton / Santa Fe 3759 (Final Run)	VT194 P - The Glory Machines 1944 - 1962 / New York Central Vol 2
VT168	P - SP Tennessee Pass Vol 2 / SP 1941 Classic Collection Vol 1	VT195 P - The Glory Machines 1928 - 1952 / New York Central Vol 3
VT169	L - Great Layouts - US Prototype Layouts	VT196 P - B&O 1950's Steam Action in Ohio / N&W Pocahontas Glory Vol 2
VT170	C - Finishing your Scenery/Painting Model Structures/ Rocks & Basic Scenery - D Frary	VT197 P - Santa Fe's Seligman Sub & New Mexico Main / Santa Fe's Pasadena Sub
VT171	P - Florida East Coast / Hank Griffiths Collection V7&8 (UP/NP/SP/MILW etc)	VT198 P - Chicago Odyssey Vol 1 1950's & 1960's / N&W Pocahontas Glory Vol 4
VT172	P - ERIE, Before the Hyphen / Lincolnland Rails	VT199 P - Chicago Odyssey Vol 2 1960's & 1970's
VT173	C - Airbrushing for Model Railroads/ Weathering Model Railroads - M Furlow	VT200 P - Union Pacific Odyssey Vol 1 1950's & 1960's
VT174	P - Rubber City Rails Vol 1 / Rubber City Rails Vol 2	VT201 P - Union Pacific Odyssey Vol 2 1960's & 1970's
VT175	P - Rubber City Rails Vol 3	VT202 P - Santa Fe Odyssey Vol 1 1952 - 1980 / N&W & Virginian Pocahontas Glory Vol 6
VT176	P - Arizona Shortline RRs / Forty Years of NKP Berkshires / The NKP & AC&Y RR	VT203 P - Santa Fe Odyssey Vol 2 The Seventies
VT177	P - The Complete NKP Berkshire / Vintage Rails Vol 2 UP & NKP	VT204 P,L - AMRA Hamilton NZ 1993 - Proto and Layouts
VT178	P - Wallin's Wonders 1 - GM&O and Rock Island / Southern Pacific Pictorial	VT205 P - Powder River Basin Coal BN&CNW / Reflections of American Railroad 1935 - 1966
VT179	P - Marathon of Steam Vol 1	VT206 C,P - Building the RGS Vol 1 (Durango) / D&RGW Narrow Gauge Freight Trains (No Sound)
VT180	P - Marathon of Steam Vol 2	
VT181	P - Steam Northeast / Steam Powered Sawmill	
VT182	P - Rocky Mountain Mainlines of the Rio Grande / Switchin along the Rio Grande /	

VCD 1	L - Layout Tour III (58 min) by Gerry Hopkins Rod Smith (2003); John Parker; Trevor James; Lawrence Nagy; San Remo Club; Gerry Hopkins MMR (2003); Geoff Nott(Leigh Creek 1992).	DVD 3	L - Layout Tour XVIII by Gerry Hopkins Fern Valley - Bill Cooper Bakerville - John Baker, Shasta Sub - Sowerby Smith (2004) Santa Fe, NSW Sub - David Swinfield, Barren Creek - John Parker, SF/UP Mandalong Sub - Trevor James
VCD 2	L - Layout Tour IV (57 min) by Gerry Hopkins Doug Wallace; Rod Smith (2001); Ken Scales MMR; John Montgomery; Bob Best; Lawrence Nagy; Gerry Hopkins MMR (2002).	DVD 4	LN - Narrow Gauge Nuggets by Gerry Hopkins (54 min) Ohio & Western (On30) - David O'Hearn; Hill End Co. (Gn3) - Bill Cooper; Cove Vale (SM16, Live Steam) - Jack MacMicking; Red Stag (On3, Last Outing) - 4 Musketeers.
VCD 3	L - Layout Tour V (55min) by Gerry Hopkins John Saxon MMR; David Swinfield; Sowerby Smith (1992); Liverpool Expo; Bendigo Expo; Hobsons Bay Expo	DVD	P - Railfanning USA 2001 (1Hr) by Gerry Hopkins. Tehachapi Loop in August, 5 trains up - 1 down. Tours around St Louis yards.
DVD 1	L - Layout Tour One (1hr 47min) by Gerry Hopkins Mowkawk Springs & Northwood HO; Missouri Pacific HO; Great Northern HO; NG Convention; Great Northern N; Wingham HO; Santa Fe HO; Lehigh Valley N; Loggin' Line HO.	VCD	PN - Puffing Billy (57 min) by Gerry Hopkins. Returns to Gembrooke 1998 includes the Climax switching at GB, the Official train on its way to and arriving at GB, a trip over the new section.
DVD 2	L - Layout Tour Six. by Gerry Hopkins Fanta Se (Dave Latham) - the last operating session, Pacific Seaboard	CD	P - Alberta Coal Branch by A.C.Lynn Zelmer

VIDEO LIBRARIAN DAVID LATHAM

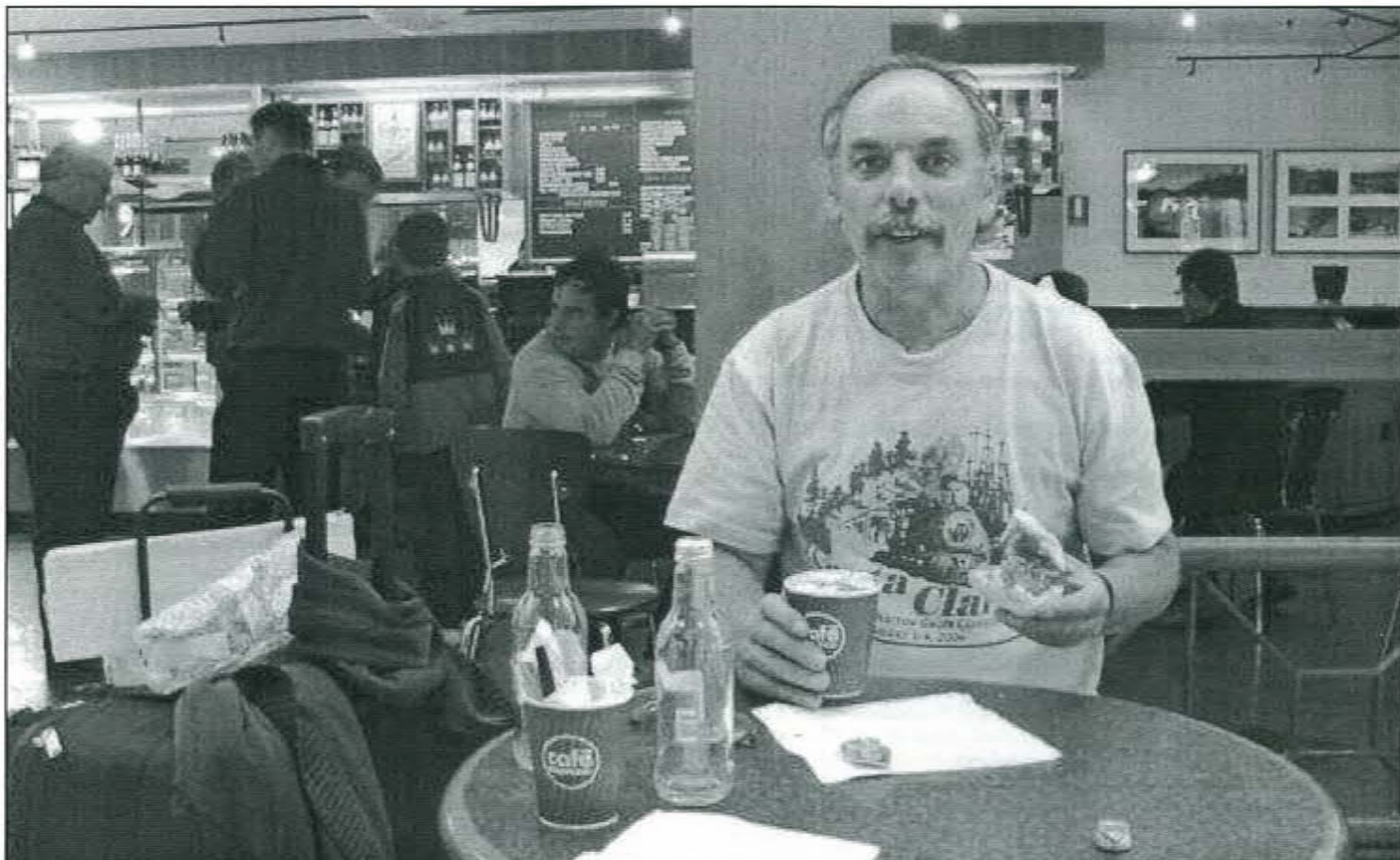
10A VENETIA STREET, KANGAROO POINT, NSW 2224

Home Phone: (02) 9522-2193 Email: lathamd@optushome.com.au videos@nmra.org.au

## WELCOME TO THE FOLLOWING NEW MEMBERS

John Bransby	Woomba	NSW	HO	
Darryl Davey	Daveron Park	SA	HO	USA
Bob Deakin	Caloundra	QLD	HO	USA
Graham Emery	Macleay Island	QLD	HO	Union Pacific
Ernie Jenkins	Yarram	VIC	HO	NSW
Peter Johnson	Pymble	NSW	HO	Branchlines
John Martin	Port Macquarie	NSW	HO	NSWGR pre 1930
Jason McNair	Baulkham Hills	NSW	HO	NSW/USA
Henk Molenkamp	Rowville	VIC	HO	UP SF SP
Edward Siladi	Forestville	NSW	HO	
John Wilson	Mangerton	NSW		
Jim Wyatt	Faulconbridge	NSW	HO	NSW





After visiting the 24th Narrow Gauge Convention in the USA, guess who couldn't wait to get stuck into an Aussie meat pie and sauce? Where? At the airport after landing of course! That's our very own dinkum Mario Rapinett. "On Ya Mario. What's in the cup?"



From the NG Convention 2005

### Advertising Directory

ARHS Bookshop	Page 11	Junction Models	Page 34
Anton's Trains	Page 15	Model Railroad Craftsman	Page 14
Asquith Model Railways	Page 39	Mountain Blue Miniatures	Page 19
Austral Modelcraft	Page 29	Railway Prototype Modellers Meet. (Melbourne)	Page 17
Bergs Hobbies	Page 28	The N Scaler	Page 34
Casula Hobbies	Page 21	The Railcar	Page 19
Gwydir Valley Models	Page 14	The Signal Box	Page 34
Hobbies in the Hills	Page 15	Tom's Discount Hobby Warehouse	Page 40
John Geremin	Page 2	Woodpecker Model Railways	Page 26

# Australasian Region Directory

www.nmra.org.au  
NMRA Inc. PO Box 382, Forestville NSW 2087

## EXECUTIVE

President	Allan Garbutt	20 Orchard Avenue	Winston Hills	2153	(02) 9686-4270
Vice President	John Saxon (MMR HLM)	186B Davistown Road	Yattalunga	2251	(02) 4369-7453
Secretary	David Jupp	90 Grange Road	Glenhaven	2156	0416-280-517
Treasurer	Erik Bennett	33 Kananook Avenue	Bayview	2104	(02) 9997-7971
Trustee	David North	1 Deakin Street	Forestville	2087	(02) 9975-2569
Members	Richard Roth	1 The Crescent	Helensburgh	2508	0409-664-475
	Robert Peterson	24 Meckiff Avenue	North Rocks	2151	(02) 9871-4157
	John Montgomery	12 Lindwall Place	Shalvey	2770	(02) 9628-9921

## SUPERINTENDENTS

Div 1 QLD	Glenn Stevens	6 Gunsynd Circuit	Birkdale	4159	(07) 3207-2442
Div 2 ACT	Viv Brice	8 Berne Crescent	MacGregor	2615	(02) 6254-8204
Div 3 VIC/TAS	Grant McAdam	194 Booran Road	Ormond	3204	(03) 9578-8685
Div 4 NT/WA	Bob Kollwyn	6 Ripplewood Avenue	Thornlie	6108	(08) 9452-1403
Div 5 NZ	Kelvin Sherson	39 The Masthead	Whitby Porirua New Zealand		(+614) 234-8577
Div 6 SA	Ron Solly	9 Grey Crescent	Evanston Gardens	5116	(08) 85222536
Div 7 NSW	Phillip Anderson	55 Westminster Road	Gladesville	2111	(02) 9879-4307
Div 8 Nthn Rivers	Ian Phemister		Coffs Harbour		(020) 6658 2626

## OTHER VOLUNTEERS

A.P. Chairman	Gerry Hopkins MMR	15 Narara Crescent	Narara	2250	(02) 4329-0242
A.P. Vice Chairman	Laurie Green MMR	20 Nambour Drive	Sunbury	3429	(03) 9744-5188
A.P. Vice Chairman	Peter Weller-Lewis	5 Tarilta Court	North Terrace Queanbeyan	2620	(02) 6293-8282
Librarian, Videos	David Latham	10A Venetia Street.	Kangaroo Point	2224	(02) 9522-2193
Librarian, Books	David Jupp	90 Grange Road	Glenhaven	2156	0416-280-517
Member Aid	Steve Chapman	138 Railway Road	Marayong	2148	(02) 9626-9979
Contest Chair	Gerry Hopkins MMR	15 Narara Crescent	Narara	2250	(02) 4329-0242
Communications	Michael Nott	11 Glen Darran Street	Hazelbrook	2779	(02) 4758-7101
Editor MainLine	David Jupp	90 Grange Road	Glenhaven	2156	0416-280-517
Membership Officer	Denise Bennett	33 Kananook Avenue	Bayview	2104	(02) 9997-7971
Public Officer	Sowerby Smith	174 Fullers Road	Chatswood	2067	(02) 9411-5726
Web Master	Wayne Eagle	PO Box 294	Riverstone	2765	(02) 9627-9892

## EMAIL COMMUNICATION

Allan Garbutt	president@nmra.org.au	Kelvin Sherson	div5sup@nmra.org.au
John Saxon	vicepresident@nmra.org.au	Ron Solly	div6sup@nmra.org.au
David Jupp	secretary@nmra.org.au	Phillip Anderson	div7sup@nmra.org.au
Erik Bennett	treasurer@nmra.org.au	Ian Phemister	div8sup@nmra.org.au
David North	trustee@nmra.org.au	Gerry Hopkins (MMR)	apchair@nmra.org.au
Richard Roth	richard@nmra.org.au		contest@nmra.org.au
Robert Peterson	robert@nmra.org.au	Laurie Green (MMR)	apvicelaurie@nmra.org.au
John Montgomery	john@nmra.org.au	David Latham	videos@nmra.org.au
Sowerby Smith	publicofficer@nmra.org.au	David Jupp	editor@nmra.org.au
Denise Bennett	membership@nmra.org.au		books@nmra.org.au
Glen Stevens	div1sup@nmra.org.au	Steve Chapman	memberaid@nmra.org.au
Viv Brice	div2sup@nmra.org.au	Convention Chair	convention@nmra.org.au
Grant McAdam	div3sup@nmra.org.au	Michael Nott	comms@nmra.org.au



The National Model Railroad Association Inc., advancing the global model railroading community through advocacy, standards, education and social interaction.