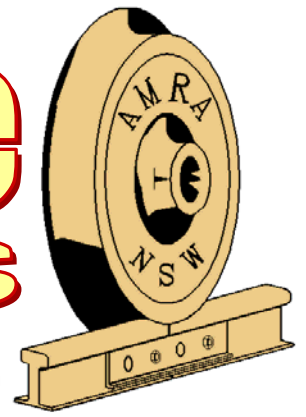


# Mortdale Matters

March 2007



**Australian Model Railway Association  
New South Wales Branch Inc. News**

# Around the Clubrooms



*Nathon Lyons sets his train into motion during the recent visit to the Hills Model Railway Society.*

*February 23, 2007.*

*Photo: Rod Fussell*

## OPEN DAY



**Australian Model Railway Association NSW Branch**  
**48 Barry Avenue, Mortdale**

*Sat 28th & Sun 29th April 2006 -- 10am until 4pm*  
*visitor entry by gold coin donation*



**Large Fixed Layouts**  
N Scale (1:160) HO Scale (1:87)  
O Scale (1:43)

*For more information please phone 02-9153-5901 or visit [www.amransw.asn.au](http://www.amransw.asn.au)*

*On the Cover:*

*Veteran 4-4-0's 1709 and 1210 arrive at Buxton on the RTM's Loop Line. 1709 was only in operation during September 2005 for the NSW Railways 150th Anniversary. September 18, 2005. Photo: Chris Winston*

# Welcome to the March Mortdale Matters

It seems like just days since the last time I sat down and wrote this column. 2007 is turning out to be a very busy year for me so far and my commitments elsewhere for the last couple of months have made the publishing date of *Mortdale Matters* a little erratic. With luck over the next couple of weeks things will begin to settle down to a degree of relative normality.

Once again my colleagues on the Committee shown their support for *Mortdale Matters*. Not only are they responsible for much of the material in *Mortdale Matters* every month but they also arranged the purchase of a new colour printer specifically for producing it. The new colour printer arrived during February and was used to print this months as well as last months belated edition. We are pleased to be able to now bring you *Mortdale Matters* in full colour on paper every month.

This being the forth issue of the magazine style *Mortdale Matters*, the format for each edition has begun to settle down into a predictable style. Each month I will have space to bring you articles about various aspects of the Branch, its layouts and activities. The space available will vary from month to month but I hope to make at least one page available each month.

If you've got an idea for an article or better yet want to write one, either contact me in person or via the details below.

*Chris Winston*

Mortdale Matters Editor



## Subscribing to Mortdale Matters

You can subscribe to *Mortdale Matters* by contacting our publicity officer, Philip Lee. Philip can be contacted either in person or by seeing a Duty Officer at the clubrooms, by email: [publicityofficer@amransw.asn.au](mailto:publicityofficer@amransw.asn.au) or by via our website: [www.amransw.asn.au](http://www.amransw.asn.au). Subscription is free.

The preferred method of distribution for *Mortdale Matters* is via email. The file size for *Mortdale Matters* is usually around 2 to 3Mb. *Mortdale Matters* is also available via snail mail or care of the clubrooms for those without a suitable internet connection. There is also a limited number of copies at the clubrooms for those not on our mailing list.

## Submitting to Mortdale Matters

With so much continually happening at our Mortdale Clubrooms, its easy for something to slip through the cracks. If you've got any news that you'd like to submit to *Mortdale Matters* please email me at [subeditor@amransw.asn.au](mailto:subeditor@amransw.asn.au) or leave a copy of your submission in the Journal pigeonhole in the office.

*Mortdale Matters* especially needs photos. Prototype photos will also be included with each issue but the focus will always be on Branch activities and events. Any prototype will be considered. Photos can be emailed to me at the above address or you can leave a disk or CD in the Journal pigeonhole in the office. Image size does not need to be larger than 1024 x 768.

I must emphasise that ALL submissions must be original material, i.e. photos that you've taken yourself or articles that you've written yourself. Material is published in *Mortdale Matters* at the committee's discretion.

The deadline for submitting material for the April 2007 *Mortdale Matters* is March 19th.

# Mortdale Building Report

The new air conditioner was installed in the main hall and immediately pressed into service. This is a welcome addition and has proved popular at our regular meetings. The Southern Cross Art Group commented on how good it was at one of their recent meetings. While the air conditioning men were at the clubroom the opportunity was taken to go onto the roof and inspect our three phase outdoor units to see what could be done to prevent the units turning back on when the power is applied to the clubrooms, Ian Ratcliffe is looking into this aspect for us.

A week later saw two of us turn up and cut a hole through the gyprock wall between the office and the main hall. The kitchen cupboard people will come up soon to have a look and measure up to fabricate the cupboard to fit in the hole to house our video/audio equipment. The hole has been temporarily sealed up to maintain security of the office.

A new A3 Colour Laser printer has been installed to enable us to print *Mortdale Matters* in house in full colour.

*David Bennett*  
Mortdale Building Supervisor

## Coming Up...

Saturday, March 24th, we'll be visiting the Canberra Model Railway Club at Lyneham ACT. Own Transport, from 12 till 5pm with a BBQ at 1pm. **Don't forget to Vote first!!!**

This month's *Stoney Creek* work day is on Sunday, March 11th.

The April Open days are over the weekend of April 28 / 29

*Check the programme on page 10 for more details.*



*The cutout has been created in the office wall for the permanent installation of the Audio / Visual equipment. A cabinet accessible from both sides of the wall will be installed in this hole.*

*February 4th, 2007. Photo: Glenn Percival*

## ARMA NSW Membership

As of February this year the NSW branch had a total of 332 members:

243 Senior Members, 8 Student Members, 58 Family Members and 25 other members.

After many years of being around the 240 mark, we're rapidly gaining on WA's 345 total members. WA has set the standard for the other branches to follow for many years. Now with the move to our new Mortdale Clubrooms our membership has expanded rapidly. As more and more facilities come online at Mortdale membership looks set to soar.

# Layout Reports

## N Scale Layout

Chris Gorrington has done a sample piece of gluing the ballast down in the quarry using matt Estapol, it looks as if it should work but some of the previous attempts have to be removed before this can proceed.

Ash Garard has continued with the greening of the layout and is currently working near the quarry area, he has done some painting of the raw plaster with Neil Watson around Lanham station. Neil has recently done the last section of rock casting near the left hand end of the big bridge, this is the final plastering that will be done on the layout. We did not think that we would see this point in the layout's construction but it has finally arrived.

Richard Sinton came along the other work night and assisted with the permanent installation of the platforms at Lanham station, it is good to see other members turning up to assist with the layout's progress.

A point motor under the Watson Flat area was replaced recently, the Peco motor had lost its pin and did not throw the point although it operated the accessory switch below the layout, these are all hand laid points and the Peco motors have been giving them a hard time. So the opportunity was taken to install a Tortoise motor to throw the point much slower, it interfaced with the layout electrics with only a small change needed in the control panel, the operating switch is no longer centre off type. As other motors fail in this area of the layout they will be replaced with tortoise motors.

*David Bennett*

N Scale Layout Supervisor

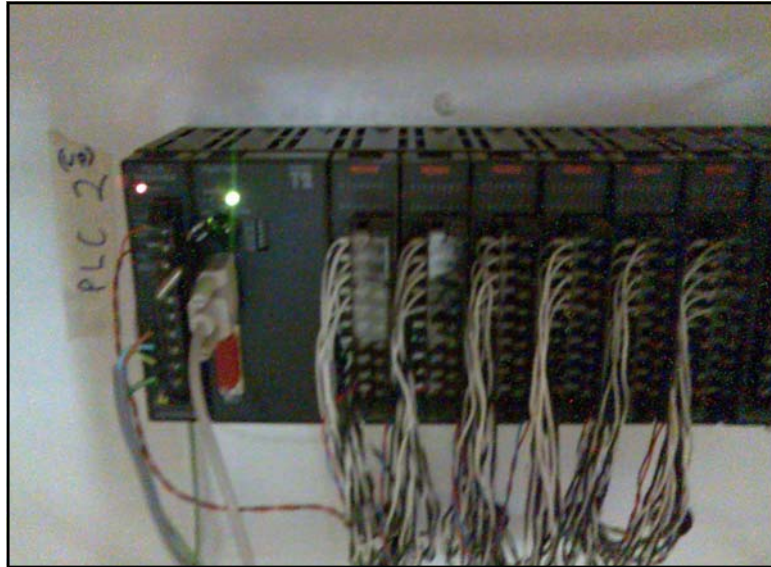


*The N scale layout at the Hills Model Railway Society at Baulkham Hills during the recent AMRA NSW visit.*

*February 23, 2007.*

*Photo: Rod Fussell*

## HO Scale Layout - Pizza Discussions



*Look at the pretty lights! The Stoney Creek Down PLC takes control of the mainline for the first time.  
February 4, 2007. Photo: Glenn Percival*

The work days on Stoney Creek have moved along so well that it is interesting to keep the planning work and material up to the ever growing work force that comes along on the 1<sup>st</sup> Sunday of each month.

I would like to address a few small issues I hear from time to time, there is nothing serious hear so don't call your legal team in.

I hear people saying they don't think they has done much on workdays but have worked all day. Let me assure you that **EVERY** job needs doing; every job that is given out and done is another one off the list. Make no mistake this is a big project, I have a "critical path" that is working toward operator control. If you feel that the job you have been asked to do is not important come and have a talk to me and I'll tell you about the critical path and where the job you are doing fits in. Every job needs to be done, every job is of equal value.

Stoney Creek running time is becoming very popular and it needs to be shared around. We need to start to use the "Train Running Board". To this end please, put your name down to run on the layout. Be ready to run to leave a yard when your slot begins and come off the mainline when your time slot ends. I have asked Ben and Stefan to be "Train Running Board" controllers/monitors please give them your full support and understanding.

When your train is running please stay with it. There have been a few times when people have trains running and been somewhere else. It is your responsibility to look after your equipment. Trains that are left unattended on the layout WILL be driven into a siding and the time slot given to another person. If you need to leave the layout area to attend to personal needs let someone know, indicating when you will return or ask someone to take your train off the layout.

Sorry to have a bit of a winge but these thing have to be said for the betterment of all and smooth running of Stoney Creek.

*Denis Gilmore*

Stoney Creek Layout Supervisor

# The President's Report

With the beginning of the new year, activities are starting up again. The layouts are all providing plenty of operating time for those who love to run their trains. The big screen and overhead projector are popular with members who like to get that close up experience with their DVDs.

Wingecarribee work nights have started up again, with the aim to make big progress this year. Alex Brown has designed a prototype system of legs for the modules to replace the original trestles that were causing us setup problems. We built a set of legs on one of the modules to try the theory and it looks as though it will be a successful solution. Once the legs are sorted out and built we can then get onto the exciting part of laying track. Anyone who wishes to help in building our exhibition layout is most welcome to come along on work nights on the odd Fridays of the month.

David Bennett has started building this year's exhibition raffle layout. David is open to offers of help with the building of this layout.

N scale work nights are continuing on Monday nights. Scenery work is progressing well and the layout is really coming to life.

Stoney Creek (HO layout) workdays are usually on the second Sunday of the month. Block wiring and point motor wiring is continuing to be installed on Stoney Creek and on the last work day the main lines were connected to the new PLC. There has been a lot of preparatory work under the layout before this could happen, but it has happened at last. I am sure that Norm Davies will be pleased to see the PLC that he donated to the club coming on line at last.

Work has also been done around the building. Keith Bowles has lined the brick walls in the disabled toilet with Gyprock and painted it to make all the walls uniform. Smoke alarms have been fitted on both levels by David Bennett. Bruce Harris and his son have installed the laundry tub, with a silt trap below, in the workshop. David Bennett has installed two downlights over the desk in the library. And finally, the ladies auxiliary has paid for the installation of an air conditioner in the main meeting room. All told it has been a very busy couple of months.

I would finally like to compliment Chris Winston for his efforts in editing and producing the monthly Branch newsletter Mortdale Matters. It is a twelve page edition and this month, February, is printed in full colour. This is due to the management committee purchasing a colour laser printer to do this job, as well as other printing for the exhibition and around the clubrooms. You can subscribe to Mortdale matters by contacting Philip Lee. The preferred method of distribution is via email (around 2 to 3 Mb). Mortdale Matters is also available by mail and a limited number are available at the clubrooms. Current and previous copies are also available on our website [www.amransw.asn.au](http://www.amransw.asn.au)

*Barry Wilcockson*

NSW Branch President

# The HO Branch lines - Display Mode

Work is progressing rapidly on the HO *Stoney Creek* layout in many different areas. The main task as mentioned last month was to bring operator control to the main lines. Work is also progressing on the two branchlines. The benchwork for the remaining section of the light branch to Kurranulla is being constructed and will soon be in place. The track for the remainder of the branches is almost completely in place as well, so naturally our thoughts are turning towards running trains.

As with the main lines, the branches will initially run under a display mode. With the priority being to complete the wiring for the mainlines, work on the branch line wiring is a low priority. The display mode for the branches is already partially operational with a train shuttling between Kurranulla and Wincliff on the light branch.

Once the light branch is connected to the rest of the world at Fayenton, the branch line display mode will be extended to allow the automatic operation of four trains. Trains will run from Jarrah Road to Kurranulla and back again, crossing the other trains at the passing loops at Sutton, Fayenton and Wincliff.

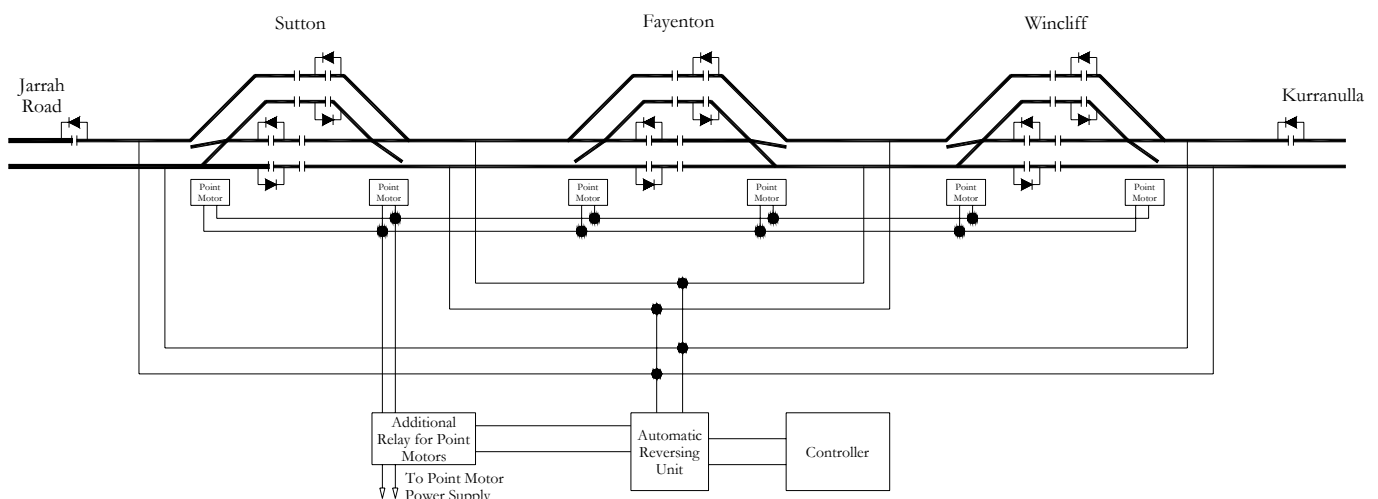
How is this possible? Denis Gilmore and I refer to it as “Little Gilston technology” - since its what runs our *Little Gilston* G scale exhibition layout. In terms of layout automation its about as basic as you can get.

The heart of the system is already installed and operating. It's the automatic reversing unit that runs the Kurranulla to Wincliff section. These units are commercially available, either as kits or ready to use. Most, like the Kurranulla to Wincliff unit, contain an adjustable timer and relay (an electromagnetically operated switch). The relay does the same job as the reversing switch in the controller and reverses the polarity of the current in the track and the train with it.

The Kurranulla to Wincliff section is a good demonstration of how these units work. At either end of the track an isolated section is needed to stop the train from running off the end of the track. Once the train enters this section it needs power to be able to reverse out. A switch or relay could do the job, but a diode is a much better option. A diode is an electrical “valve” that only allows current to flow in one direction. Its installed across the gap in the isolated section so that when the train enters the stop section won't have power. When the train enters and the polarity is then reversed the diode conducts, the stop section gets power and the train heads back where it came from.

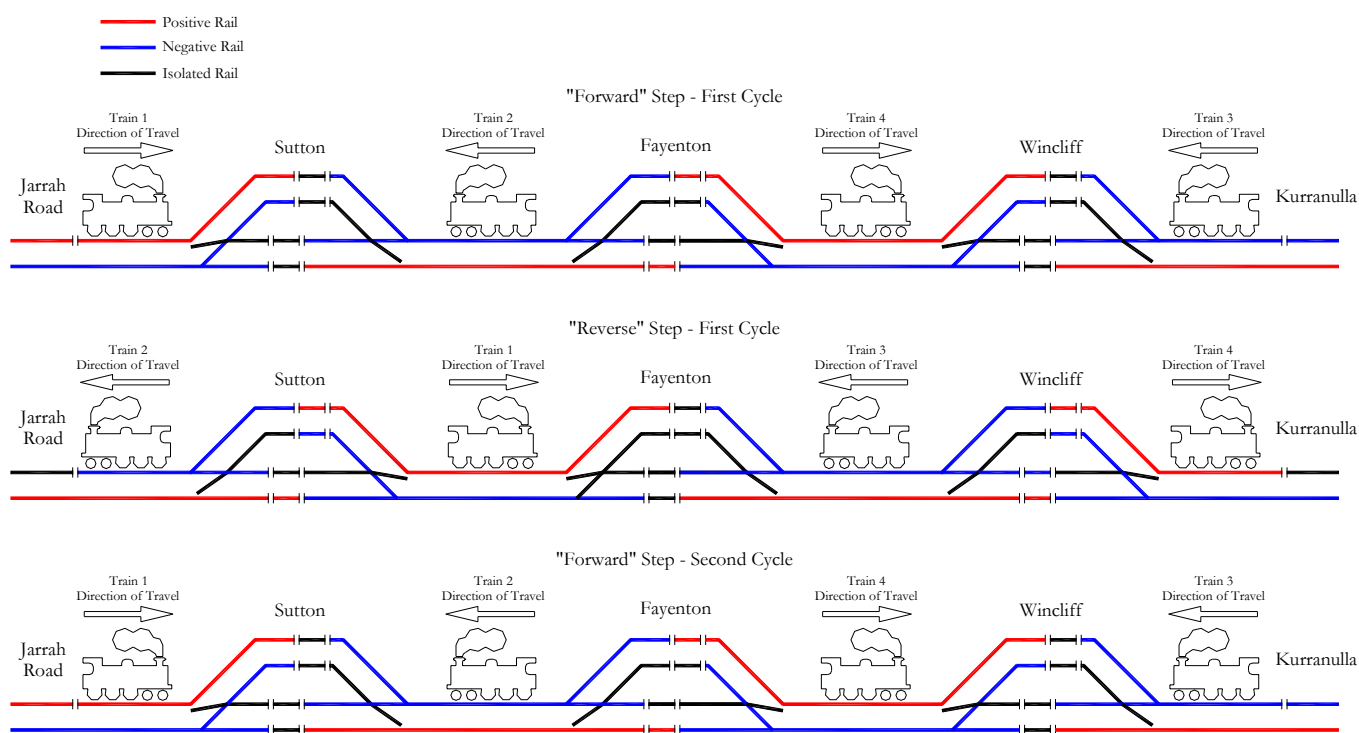
Now comes the interesting part - getting more than one train running. This system requires all four trains to run off a single controller and reversing unit. With only “Forward” and “Reverse” available to us, we've got a two step cycle to play with. Once the Reversing unit has gone from “Forward” to “Reverse” and the trains have reached the stop sections, each train must have moved from its starting position to the starting position of the train “in front” of it. Then the system cycles through again and the trains move further along.

## How the Track is Wired





# How the Trains move through the System



So for a train starting at Kurranulla, the “Forward” step will take the train to Wincliff where it crosses the train “behind” which is heading the other way. The “Reverse” step moves the train to Fayenton where it crosses a second train. This was the starting point for the train “in front” which is now at Jarrah Road.

If you’ve been following closely, you’ll have realised that our train ran forward during the “Forward” step to Wincliff and then ran forward again during the “Reverse” step to Fayenton. Shouldn’t the train have reversed back to Kurranulla with this system? Not quite.

What we do is set up each single track section between passing loops as its own independent shuttle track. Each adjacent section is then wired back to front so that the trains in the adjacent sections head towards or away from each other. That gets the trains to meet in the passing loops. Once at the passing loops we then want to pass the trains from one shuttle track to the next. That’s as easy as changing the points!

This is done by adding a second relay in parallel to the one in the Reversing Unit and connecting it and all the point motors together. Now once the trains enter the passing loop and stop, the reversing unit changes polarity and the points change transferring the trains to their next sections. Because the points are linked to the track polarity at each loop trains heading to Kurranulla will always use the left hand track at each loop while all the Jarrah Road bound trains will always use the right hand track.

That’s not quite the end of the story. Some careful but simple wiring is needed at the passing loops. Because the adjacent sections have opposite polarities both rails must be gapped at the stop sections in the loops to prevent a short circuit. With trains on each loop train always heading in the same direction our wiring job is a lot easier. Once a train has run through a single track section and stopped at the stop section in a loop that section doesn’t need any further control over the train. This means that we don’t need to fit any diodes on the entrance side of a stop section in a passing loop. Diodes are only required on the exit side of the loop stop sections to allow trains to proceed into the next section.

Hopefully the diagrams show how simple the system really is. Its simplicity can also be a drawback. Each time the polarity reverses it is assumed that all of the trains have made it their next stop sections. If the timer isn’t set for long enough or a train stalls along the way, the system isn’t smart enough to know. That said with reliable trains, clean track and a good setting on the timer, the trains will run backwards and forwards all day without a problem.

# AMRA NSW Programme

# Mar'07 - May '07

## MARCH

Fri	2nd	<i>Wingecarribee</i> Work Night	7:30pm until 10pm	No Facility Fee
Sat	3rd	Layout Operation (see Notes)	10am until late	
Sun	4th	<i>Stoney Creek</i> Work Day	10am until 6pm	No Facility Fee
Wed	7th	"Daylighters" Work & Run	10am until 4pm	
Fri	9th	Feature Night – <b>H.O. Signal Construction</b>	7:30pm until 10pm	
Sat	10th	General Activities (see Notes) Plus Ladies Needles & Natter	10am until late From 2pm	
<u>Wed</u>	14th	"Daylighters" Work & Run	10am until 4pm	
Fri	16th	<i>Wingecarribee</i> Work Night	7:30pm until 10pm	No Facility Fee
Sat	17th	General Activities & Monthly Forum (see Notes)	10am until late	
Wed	21st	"Daylighters" Work & Run	10am until 4pm	
Fri	23rd	Layout Operation (see Notes)	7:30pm until 10pm	
Sat	24th	<b>Visit to Canberra Model Railway Club</b> , Lyneham, A.C.T. The "Ukraine Catholic Centre" Hall, Archibald Street.	12noon until 5pm, light BBQ at 1pm Own transport. No Facility Fee	
		<i>General Activities at Mortdale (see Notes)</i>	10am until late	
Wed	28th	"Daylighters" Work & Run	10am until 4pm	
Sat	31st	<b>Members Auction</b> Lodgements until midday Max 50 Lots per Seller. Seller or Agent must be present during Auction.	Viewing strictly 12-1pm	<u>Hammer 1pm.</u>

## APRIL

Sun	1st	<i>Stoney Creek</i> Work Day	10am until 6pm	No Facility Fee
Wed	4th	"Daylighters" Work & Run	10am until 4pm	
Fri	6th	<b>Good Friday.</b>	<b>- CLOSED -</b>	
Sat	7th	Layout Operation (see Notes)	10am until late	
<u>Wed</u>	11th	"Daylighters" Work & Run	10am until 4pm	
Fri	13th	Feature Night – <b>Play Back (Members Owned).</b>	7:30pm until 10pm	
Sat	14th	General Activities & Monthly Forum (see Notes) Plus Ladies Needles & Natter	10am until late From 2pm	
Wed	18th	"Daylighters" Work & Run	10am until 4pm	
Fri	20th	Pre-Open Weekend – Working Bee	7:30pm until 10pm	No Facility Fee
Sat	21st	Pre-Open Weekend – Working Bee	10am until late	No Facility Fee
Wed	25th	"Daylighters" Work & Run <b>ANZAC DAY</b>	<b>12 noon until 5:30pm</b>	
Fri	27th	Open Weekend - Preparation	7:30pm until 10pm	
Sat	28th	<b>** OPEN WEEKEND **</b>	10am until 4pm, visitor entry by gold coin donation	
Sun	29th	<b>** OPEN WEEKEND **</b>	10am until 4pm, visitor entry by gold coin donation	

## MAY

Wed	2nd	"Daylighters" Work & Run	10am until 4pm	
Fri	4th	<i>Wingecarribee</i> Work Night	7:30pm until 10pm	No Facility Fee
Sat	5th	<b>Visit to Macarthur District Model Railway Club, Ruse</b> "St Thomas More Church" Hall, Acacia Avenue <i>Mortdale – Closed.</i>	10am until late	
Sun	6th	<i>Stoney Creek</i> Work Day	<b>- CLOSED -</b> 10am until 6pm	No Facility Fee
<u>Wed</u>	9th	"Daylighters" Work & Run	10am until 4pm	
Fri	11th	Feature Night – <b>T.B.A.</b>	7:30pm until 10pm	
Sat	12th	General Activities & Monthly Forum (see Notes) Plus Ladies Needles & Natter	10am until late From 2pm	
Wed	16th	"Daylighters" Work & Run	10am until 4pm	
Fri	18th	<i>Wingecarribee</i> Work Night	7:30pm until 10pm	No Facility Fee
Sat	19th	Layout Operation (see Notes)	10am until late	
Wed	23rd	"Daylighters" Work & Run	10am until 4pm	
Fri	25th	Layout Operation (see Notes)	7:30pm until 10pm	
Sat	26th	General Activities (see Notes) & <i>Wingecarribee</i>	10am until late	
Wed	30th	"Daylighters" Work & Run	10am until 4pm	

## NOTES

- WORK NIGHTS: Mondays & Fridays unless otherwise indicated, 7:30pm until 10pm. No Facility Fee.
- LAYOUT OPERATION: O and N Gauges operational, HO (fixed) *as permitted during construction.*
- GENERAL ACTIVITIES: the facilities may be used *as permitted* e.g. layout construction, some running, modelling, library, etc.
- Members Facility Fee unless otherwise indicated: Adults \$5, Juniors/Seniors (70+) \$3.
- Guests are welcome unless otherwise indicated.
- This programme may be subject to change without notice where necessary. Updated programmes available from the Clubrooms, by e-mail to [publicityofficer@amransw.asn.au](mailto:publicityofficer@amransw.asn.au) or from [www.amransw.asn.au](http://www.amransw.asn.au).
- Address: 48 Barry Avenue (PO Box 277), Mortdale NSW 2223. Phone (02)9153-5901, Fax (02)9153-5905.

# 12 Inch to the Foot Scale



*The once mighty 3-cylinder 5711 waits up at the southern end of the RTM part way through a static restoration. Much of the locomotive is overshadowed by its massive boiler and smokebox. February 17, 2007.*

*Photo: Glenn Percival*



*Bethungra Spiral on the Main South between Cootamundra and Junee seen from 3500ft. Taken from the Southwest looking North East. February 18, 2007.*

*Photo: Chris Winston*

*On the back cover:  
A poignant reminder of the centralisation of safeworking control, the sign on the window saying "1916 - 20/01/07 R.I.P."  
Picton Signal Box is now remotely controlled from Junee. February 17, 2007. Photo: Glenn Percival*



PICTON SIGNAL BOX.

1016-20/01/05  
R.I.P.