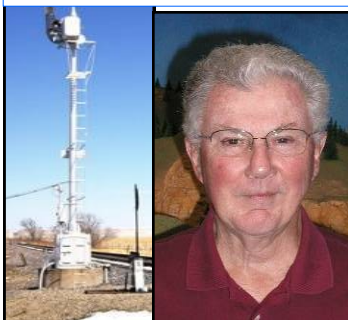


Volume 5, #6 June, 2009



# The Semaphore

**North County Model Railroad Society (NCMRS)**  
**Boney's Market, 2nd Floor**  
**1820 Oceanside Boulevard, Oceanside CA 92054**  
**(760) 722-7366**

## Work Schedule

Thursday and Saturday are work days at the club. There are plenty of tasks to perform.

## Visitor Schedule

Thursday 3 - 8:00PM  
 Saturday 9:30AM\*- 4PM  
 \*11:00AM meeting days

## Upcoming Operations Dates

Tuesday, July 14  
 (No Session in June)  
 Setup time 1:00 pm  
 First Departure 4 pm  
 Last Departure 7 pm

## Table of Contents

President's Message by Dick Miller	1
HELP WANTED! (Signal Stuff) by Howard Levine	2

**North County  
 Model Railroad Society  
 Boney's Marketplace  
 2nd Floor  
 1820 Oceanside Boulevard  
 Oceanside, CA 92054  
 (760) 722-7366  
 www.ncmrs.org  
 Editor: Howard Levine  
 Copy Editor: Sue Ruddick  
 Layout: Nick Ruddick**

## President's Message

by Dick Miller

### Miscellaneous Ramblings

There is a lot going at NCMRS these days.

We have talked for some time about using a computer program, "Decoder-Pro" to set up and record member's locomotive decoder CV values. After a number of formal and informal meetings we agreed on the required hardware, and thanks to Leo Valley the system is setup and running. The program will allow the user to easily set up and record the CV values on his locomotive. Like anything new I expect there will be some start-up difficulties. I understand that this program is being used successfully by both the La Mesa Model Railroad Club and the Poway Station Model Railroad Club, so I am certain we will be able to work through any start-up problems. For someone like me, who is very timid about changing the CV's on his locomotive, this new capability is very welcome. I look forward to learning how to use the program.

Just last month we established an Equipment Test and Certification (ETC) Department, to certify that all member and club motive power and rolling stock meets club and NMRA standards, prior to use on our mainline railroad. The certification requirement was written into our Rolling Stock Standard. The requirement was released over a year ago — the new Certification Department has been a long time in coming. Compliance with our Rolling Stock Standard should reduce derailments and make for more enjoyable operating sessions. Testing and certification will be performed by Leo Valley and Lorenzo La Pierre. They are up and running, so make arrangements with either Leo or Lorenzo to have your locomotives and rolling stock checked and certified. Unless you have been living in a cave or have been on a month's vacation, you have seen our new test track setup outside the south wall of

the Maintenance Department. These new tracks will be available for members to test their locomotives and manually program their locomotive decoder CV values. The track will be set up for DC and DCC testing. This new test track will also be used when programming decoders with Decoder-Pro.

When this new test track is completed the small test track inside the Maintenance Department will be eliminated in favor of the new test track. The test/program track in the fiddle yard area also will be eliminated, so as to relieve congestion in that area and allow more space for train set-up and equipment storage.

I personally support these changes at the club. I see them all as very positive. I hope you do as well.

All aboard,  
Dick Miller (5/18/2009)



### HELP WANTED (Signal Stuff)!

by Howard Levine

We must all be proud of the excellence shown in the design and implementation of our model railroad system. We have great scenery, handsome cityscapes, realistic freight yards, mainlines, bridges, tunnels, and rolling stock (member supplied). We have a reliable DCC control system, with conveniently located control stations, electronically controlled switches galore, docks, an oil refinery, an in-town dynamite plant, and lots more. But there is one thing that we do not have that all real railroads do have: a block signal system. And because we don't have a signaling system, we do have a few things that we don't want: short circuits caused by attempts to enter closed switches, and near miss head-on collisions. (I am reminded of a common saying from my old flying days: "A mid-air collision will spoil your entire day." I don't know if we have had any head-on collisions recently (or ever) but I am sure that such an event would ruin at least two member's entire day.)

With this in mind, as most of you may know, a group of members was charged several months ago with the task of analyzing, planning, and developing a block signal system for our layout.

Although for the most part not yet visible, much work has already gone into this system. There are several components to this work that are completed, plus a few that remain. The "Help Wanted!" title of this article relates to the work that remains, about which see below. But first, let us see what is needed and what has been done?

A block signal system requires, as is common in many areas of human accomplishment, generous helpings of equipment and brains. "Equipment" means:-

1. resistors that need to be added to the rolling stock to enable their detection in a block
2. block occupancy circuits that detect rolling stock in a block

3. circuit elements that detect the “state” of the switches in the system
4. Circuits to combine the two previous bits of data into a single line sent to the signal system computer
5. software that makes the necessary decisions in the signal system computer
6. a signal that goes from the signal system computer to a dedicated cab
7. a dedicated cab that turns the information from the signal system computer into DCC commands to turn on /off the appropriate function light
8. wiring and hardware that allows the signals to receive the decisions
9. signal/displays that are connected to a DCC decoder chip

Just to add to the “fun”, all of this hardware and software must function so that affected lights are able to revise their states within 1/2 second of the time when a switch changes its setting, or a block formerly unoccupied/occupied becomes occupied/unoccupied.

The present NCMRS layout consists of 61 blocks, 52 switches, and 172 possible locations for signal lights — numbers that will increase as the new track addition, now in design, comes into play.

As of 5/26/09 items 2 and 3 are pretty well complete, although perhaps some testing remains to be done. These two items are incorporated in the big white open box, filled with electronic stuff, that can be seen on the table alongside the block wall in the club’s new back room. They were designed and built of Jay Sarno. They are capable of handling our present system, but may need enlargement when our layout expands. Item 4 is complete, thanks to the contribution of a computer system by former member Giles Warren-Browne, prior to his moving to Seattle. Item 5 is complete, having been done by Your Newsletter Editor in a reprise of his younger role as a Principal Software Engineer. However, it has not yet been subjected to serious testing, more of which see below. Item 8 is not yet begun and the signals/displays are waiting for the first test to be complete.

So, what about the other items?

Item 1 will require installation of resistors (or equivalent) on rolling stock. It is anticipated that the cost per car will be small, and that each of you will be responsible for your own equipment. However, the club will provide assistance to make the task easy. Details will be worked out when the others tasks are near enough to completion to raise the priority of this task.

Items (4) and (8) will call for installation of wiring underneath the layout, and when they are ready to commence, the “Help Wanted!” call above will expand from the mere title of this article into a SHOUT FOR ASSISTANCE.

Item 6 is at this moment the one with critical needs. Because of the complexity of the software, and because of inherent limitations in the test mechanisms now available (since Items 4 and 8 are TBD!) testing is, as it turns out, more than a one man task. It may, in fact, require up to three people, working side by side, to verify that the software — there are nearly 50 pages of computer code and three big data files that describe the layout “geometry” — is working correctly. As of 5/26/09, only Cliff Anderson and I have spent any time on this, so I hereby send a SHOUT FOR ASSISTANCE. (You don’t have to be computer savvy to help. You only

need to be able to flip switches and/or read numbers off of a computer screen.) It promises to be lots of fun, so why not pitch in and help?

