



## North County Model Railroad Society (NCMRS)

On Saturday, December 27, 2008, the club meeting will be held at 10:00 am, at Boney's Marketplace, 1820 Oceanside Blvd., Oceanside

### Work Schedule

Thursdays and Saturdays are work days at the club. There are plenty of tasks to perform.

### Visitor Schedule

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

### Upcoming

#### Operation Dates

To be announced  
Setup time 1:00 pm  
First Departure 4 pm  
Last Departure 7 pm

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### 2008 in Review

It's been a great year for our railroad club. A lot has been accomplished during this, our fourth year at Boney's. We have a lot to be proud of. Visitors to our club have been very complementary. Our membership has almost doubled since we moved to Boney's, so we are doing a lot of things right.

Financially our club is in excellent shape. A good part of our financial health is due to E-bay sales of donated model railroad equipment. We have been fortunate to have received numerous donations from members and outside sources during the year.

Construction on the railroad continues. Peninsula A and B are essentially complete. The buildings on peninsula C at Dixon and Russell are beginning to find permanent locations. The John Allen steel trestle at the tip of C and the surrounding scenery is now complete. This scene is definitely a "WOW".

Electrical work is moving forward with additional inset turnout

control panels installed on peninsulas B and C.

The condition of our club rolling stock has never been better thanks to our very capable mechanical / maintenance department. This makes for much improved formal and informal operation sessions.

On the subject of operation sessions, we have had a formal operation session on the second Tuesday of each month during the year. If you have not participated in one of these sessions I suggest you do so. It's great fun!

Early in the year we released the new Operating Standards for Rolling Stock. In April we released an "Information for new Members" bulletin, which I think has been informative for all members, new and old. In July the article that a lot of you worked on for Scale Rails magazine was finally published. The July issue served as the NMRA National Convention program so we got a lot of publicity and three new members.

In December we will again move our demonstration layout (Show-N-Go) to Del Mar for a model railroad

show. Our "Kid friendly" layout is always a big hit with all the young engineers who attend the show.

I am happy to report that our 900 sq. ft expansion and our front entry up-date are complete. In the expansion area we now have a business office, a maintenance area and a crew lounge. There is also room for future expansion of our layout.

If you are a new member and would like to get more involved in the club, please talk to me or to any senior member. There are plenty of things to do in the club. We need help in all phases of construction, as well as administration and committee jobs that are necessary to keep the club running. We want and need your participation.

So members, pat yourselves on the back for a great year. From what I see we are going to have a very active 2009.

All aboard  
Dick Miller  
11/20/08

## **All About Railroad Signals (Part 2)** **by Cliff Anderson**

### **4. Moving Through One Block at a Time**

Increasing the complexity only slightly, the next surviving method is to define "Blocks" of track. Usually a block of track was between two manned stations that had telegraphic contact with one another but no visual contact. If one reads any of the descriptions of signaling today, one must accept the circular language that evolved from that early concept of a Block. Two or more "block signals" are used to "protect a block" and if this clarifies anything, then your use of the language

is significantly different from mine. A block could be as short as a mile, but often ran for six to twenty miles. The distance was based on the availability of local labor as well as many other factors. As in the Dark Territory case, the same authorization procedures are still in place, but within the Block Signaling Territory the train crew needed to obey the signals too.

Similar to the employee in the shack, station operators were located at each end of every protected block. The actual station might be called a cabin or a tower. The station operators logged each train entering or exiting the block and notified each other and the dispatcher every time one of those events occurred. That practice continued until very recently when technology became cheaper than the labor costs. Some of the towers can still be seen in the region of Los Angeles Union Station and are still called out on the employees' timetables. In its most recent form, there were what we now call Train Order Signals at each end of the block. A red signal instructed the train crew to "stop and sign for received orders." A yellow signal instructed the crew to slow down to receive orders that were handed up on a "Y" shaped stick, but no signature was required. Many movie scenes of the 40's and 50's depicted the handoff activity. A crew without authorization did not move a train simply

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because the signal indicated a clear track, but a crew with all of the proper authorization forms in hand must wait for the signal to clear before entering the block.

Early locomotives had no protection from the weather and the train crew stood out in the open. Passengers had no real protection either, but that is not relevant to this note. Trains only ran during the day, so a block signal might have been a swinging gate made of wide lumber parts that a train had to stop for or it might have been a ball, several feet in diameter, suspended from an inverted "L" shaped tower or the side of the station. Sometimes the "ball" was nothing more than a round piece of sheet metal on a long arm with a hinge. When the ball was low enough to smash the engineer in the face, the train had to stop, or else. Some people claim that the expression "High Ball" came from the experiences with that device, as a ball in the raised position meant that a train could continue without stopping. There are also other possible sources for that expression. I can still remember seeing a ball on a rope at a remote place where a seldom used siding met the mainline but, that was so long ago, I do not remember any details. A later invention was the semaphore signal on a high mast to the side of the track. Early semaphores had no lights, so they too were designed for daylight operation, and in clear weather.

I am unsure as to the actual time ordering, but trains began to run after sunset and signal lights became available. The original signal for an open track was a clear signal that was a white light and that terminology is still with us today. To make the signals visible at night, at first oil lanterns were used, then electric lights. Either way, the light was too dim to be seen during the day. Semaphores were augmented with colored lenses that

moved past the lamp and focused the small amount of light into a narrow beam that was at the engineer's eye level. Early use of colored glass led to broken lenses in cold or windy conditions and it soon became obvious that a broken lens gave a false clear signal, with the inevitable unhappy ramifications. Even worse, oncoming train headlights were dim yellow or white and could also be mistaken for a clear track signal. Very quickly, in relative terms, a white signal became recognized as a broken signal, and as a result, Dark Territory rules apply. One of the railroads turned to the Corning glass company with a request that led to a product called Pyrex that was originally designed to survive the heat of the flame on one side and the cold of  $-50^{\circ}$  or wind driven snow on the other side. In the 1920's the Pennsylvania Railroad began replacing their semaphores with lighted signals that use seven amber lights.

A signal more common to Southern Pacific Railroad modelers, and seen on the Sprinter line, looks something like the one in this drawing. The railroads refer to this signal as Type D, or sometimes a GRS Type D, based on the identification of the original General Railway Signal Company. Union Switch and Signal Company made a similar type signal and I think both are now referred to as Type D. Notice that the green light is on the top and that standard was established before towns started installing traffic lights. I have been told by my grandfather that the first street lights were specifically reversed so that a driver could tell the difference between a street traffic light and a train signal.



## 5. A Safety Device that Improves Profit

In the previous article, I discussed the first two of the primitive forms of train signaling and the related terms, Dark Territory and Block Signal Territory. In this article, I want to discuss how the railroads learned to use a safety device that was treated as a necessary overhead cost into a traffic flow regulator that not only covered its sizeable capital expenditure but also increased the effective flow of traffic and hence the profit margin.

The next step in the advance of technology after the block signals was the use of automatic signals that did not require paid employees to operate them. The terminology of a block and block signal remained as before, but the concept of a block was reduced to a shorter piece of track, usually defined in terms of the maximum stopping distance of a fully loaded train on a normal day for the geographic location and traffic conditions. A heavily loaded eastbound coal train in Pennsylvania or West Virginia would need one kind of block length and a train of sugar beets in the Central Valley of California would need another. The railroads then came up with the term "Segment" to mean the collection of blocks on a single line of track between two stations that had previously been called a block. In what the railroads called the "Advanced Block System" or ABS the signals protect a segment of single track line as before, but with a significant improvement in one-way traffic. Instead of waiting for the first eastbound train to exit the segment, a number of eastbound trains can follow one after the other if there is sufficient protection to prevent a train from running into a slowed or stopped predecessor. A number of additional rules apply, but once a train has entered a segment, a yellow signal indicates that a train is probably overtaking its predecessor and must reduce its speed to something like 15 miles per hour. Optimal traffic speed is when a train crew can see a yellow light turn green just as it comes into sight. Opposing trains in single track

territories have train orders that tell a train to wait at a particular siding, for open track clear to the next siding.

In ABS Territory, a red signal indicates either there is opposing traffic or that there is a preceding train that is stopped or is about to be overtaken and either way, the crew must stop their train before reaching that signal. A single track may be configured for ABS traffic in both directions, so that the dispatcher simply reserves certain hours for each direction. A double track may have one single track for each direction configured for ABS.

A train signal that is commonly seen on railroad property that was once part of the Santa Fe looks something like this drawing, but I have left out the service platform that Santa Fe usually had. There is a single bulb with a three lens rotating bracket behind the circular sheet metal head. Sometimes the head is called a target. It has a direct inheritance from the movable part of the semaphore mechanism. The railroads refer to this as a General Railway Signal company Type SA signal. It is also called a "searchlight" signal.



In next month's newsletter, the last part of this series will describe the use of block signals in high density traffic areas, and I will give you some sources of information. Keep tuned!

# My First Christmas Cake

By Nick Ruddick

I would like to take you back to 1948 when I was three and growing up in England just a after the war. We lived in a village called St. Margarets, which was about 15 miles north of London. Although the war was over, England still had rationing even though things were getting easier. For the first time in over nine years my parents had enough ingredients to make a Christmas favorite, an English fruitcake, very different to its American cousin, which to me is a poor excuse. The cake is made with various dried fruits with lots of brandy and small amounts of other ingredients. Most of the alcohol evaporates during the baking but leaves a wonderful taste. The cake is then iced with hard icing and decorated with Father Christmas (Santa Claus) and a snow scene. To protect the icing from the wonderful juices that seep out of the cake a layer of marzipan is put on the cake before the icing.

My brother, who was four years older than me, was put in charge of rolling out the marzipan and applying a layer of it to the cake and I was allowed to help. We had just started this process when my mother realized that she did not have any cake decorations, Santa, a sled and trees, much needed to top the whole thing off. She told him to carry on while she went to the shops. We had applied the marzipan to the top of the cake and had rolled out the rest into a strip wide enough to go around the cake. This was difficult as it kept falling off so my brother had the brilliant idea to place the marzipan on the table and roll the cake along it like a wheel. This worked first time and so successfully that the cake continued once we had got to the end of the marzipan strip and went on to roll off the end of the table onto the coconut matting covered floor where it continued to roll, eventually landing on the marzipan covered top. We quickly picked up the cake and dusted it off as best we could since coconut matting holds a lot of grit. So that we would not have to tell my mother what happened we started the process of icing it. We had almost completed this when my mother arrived home with the miniatures for the top. We were all pleased with the final result as it looked wonderfully festive.

On Christmas Day afternoon we all sat down to tea and my first Christmas cake. My father's only comment was that it was excellent even if the dried fruit was not as good as before the war ..... it seemed a bit grittier than he remembered!

## More Bad Railroad Jokes

Why can't a steam locomotive sit down?

Because it has a tender behind (or because it's caboose is red).

Why is the track gauge 4' 8 1/2" ?

Because it's the mean distance between the neck and ankles of a damsel in distress.

Why must this newsletter have these bad jokes?

Because you didn't write your article this month! **WARNING:** Next month could be worse! It's up to you!