

This is my first attempt at trying to share some of the happenings at the Tower - beyond the formal meeting minutes. I thought that members would like to learn about some of the things we have done at the Tower Society, both physical (restoration work, for example) and not (research results, for example).  
Kendrick Bisset

## THE CTC MACHINE

While the mechanical interlocking machine in the Tower is the largest and oldest piece of signal equipment in the building, the CTC machine is also a significant historic item. CTC (Centralized Traffic Control) was developed in 1927 to allow trains to be controlled through signal indications rather than train orders. The CTC machine allows one operator (often the Dispatcher) to control switches and signals over a large area. CTC was (and is) very useful when the area controlled is single track with passing sidings, and allows the operator to throw switches and clear signals to allow trains to meet and pass each other. In this case, each mainline switch is power operated, and has (usually) three signals to control train movements over the switch. These signals and switch are an interlocking, and CTC is essentially a remote control system for a series of such interlockings. Our CTC machine controlled only a few locations, and those locations changed over the years. It is significant that some of the locations controlled by this machine had been mechanical interlockings, with large levers similar to the mechanical levers still present in our Tower.

The CTC machine was first installed in the tower at Gravel Place in June of 1942, and controlled West Henryville and Analomink. The Analomink tower had been closed several years before, but track 4 had been shortened, so a new switch was installed. The Henryville track plan had been simplified, and the mechanical tower was closed when the remote control was installed. In late November, 1950, the CTC machine was moved from Gravel Place to (East) Stroudsburg, and the tower at Gravel Place was closed. When the machine was moved to Stroudsburg, it apparently still controlled West Henryville and Analomink. In January of 1951, control of Slateford Junction was added to the CTC machine. Three switch and three signal levers were added for this control; the added levers used newer versions of the lever escutcheons than the original levers.

When the flood of 1955 devastated the area and the Lackawanna Railroad in particular, the CTC machine was again re-configured. Since the double tracks of the Lackawanna had been completely washed out in the area east of Stroudsburg, a new bridge had to be installed, as well as a lot of earth work. To save money, a single track bridge (known as Bells Bridge) was installed to cross the Broadhead Creek. Power operated switches were installed at the ends of double track, and signals installed to control train movements through the short single-track section (originally less than a mile long). Slateford Junction was changed to hand-throw switches, and the new interlockings at Bell's bridge and West End Slateford were controlled from the CTC machine. Of the six levers which had been installed to control Slateford Junction, four were used for the new interlockings.

The model board for the 1955 version of the machine is interesting, because it has black lettering and lines on a white background. The typical model board has a black background, with silver colored lettering and lines (see the picture of the original board). These were usually provided by Union Switch and Signal, and may have been photo-etched. We only know what the 1955 board looked like from photographs, so the actual construction of the board for our machine is not known. A good suspicion is that this board was produced "in-house" by the Lackawanna signal department in order to save money. The panel was re-constructed from photos of the tower in service in 1976, provided by Bob Bahrs.

Summary timeline:

June 1942	CTC machine installed in Gravel Place, controlling West Henryville and Analomink
November 1950	CTC machine moved to Stroudsburg, controlling West Henryville and Analomink
January 1951	Controls for Slateford Junction added
Fall 1955	Controls for Slateford Jct replaced by controls for Bell's Bridge and West Slateford
1986	Tower closed

Mechanical towers closed; simplified track layout controlled from CTC machine:

West Henryville, MP 91.04, 12 working levers, 4 spare, in service November 1913, closed June 1942

Analomink, MP 85.1, 25 working levers, 4 spare, in service August 1909, closed March 1932

Analomink, MP 85.75, single switch for track 4, in service June 1942, out of service March 1955

Analomink, MP 85.1, single spring switch for track 3 to 1, in service 1955? out of service October 1974 (?)

Gravel Place, MP 83.11, 30 working levers, 2 spare, closed November 1950

Gravel Place, MP 84.5, single switch for track 4, in service March 1955, out of service May 1975 (?)

Slateford Junction, MP 74.27, 41 working levers, 3 spare, closed January 1951



Illustration 1: Original CTC model board, photo from Rich White



Illustration 3: CTC machine as we got it; photo by Jon Bisignano

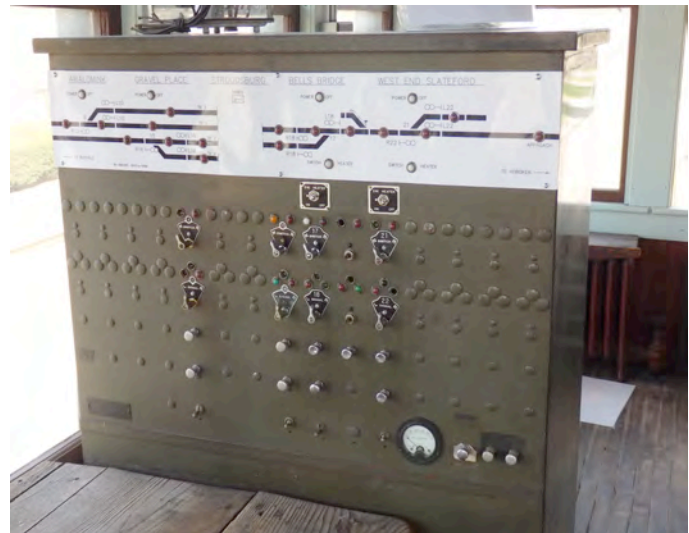


Illustration 2: CTC machine cosmetically re-created as of April, 2015

The cosmetic re-creation uses a new model board based on photos. The lever escutcheon plates are from CTCParts.com, including custom made switch heat plates.