

Frisco Moves C.T.C. to One Office

C.T.C. machines at Springfield was carried out. The addition of the 65 miles between Sleeper and Springfield, with the control machine at Springfield, necessitated three separate controlled sections. This required the installation of two remote-controlled carrier sections, Sleeper to Newburg, and Newburg to Dillon. Due to the large number of carrier frequencies used by the railroad's communication department, and because of the lack of necessary carrier

transpositions, it was decided to use relatively higher carrier frequencies than had been used heretofore in C.T.C. work. The new frequencies decided upon are 40-48.7 kc. for the Newburg-to-Dillon section, and 42-51.1 kc. for the Lebanon-to-Newburg section.

With the dispatchers at Springfield, the entire territory, Springfield to Dillon, is east of Springfield. Another section of C.T.C. between Springfield and Monett, 41 miles, installed in 1944, is west of Springfield. This makes approximately 175 miles of C.T.C. territory between Monett and Dillon which is all controlled from the Springfield office. These C.T.C. machines are located in the dispatcher's office. The Springfield-Monett machine, which was originally installed in the Springfield office, is a 5-ft. section. To this section was added two 2.5-ft. and two 5-ft. sections, making a "U" layout with Monett on the right, or west, and Newburg on the left, or east. The Newburg-Dillon machine which is a 5-ft. section with spare space for possible additions, was moved from Newburg to Springfield.

In making the change-over for the Sleeper-Newburg section, the new

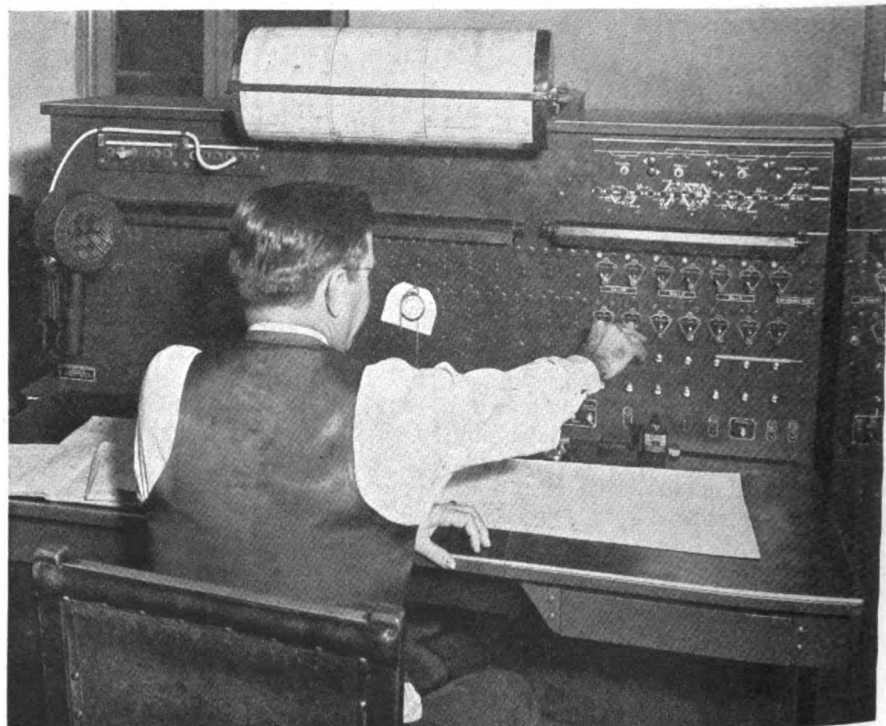


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In 1943 the St. Louis-San Francisco installed centralized traffic control on 47 miles between Dillon, Mo., and Swedeborg. Two C.T.C. machines were installed at Newburg, Mo., one to control 13 miles east from Newburg to and including the passing track at Dillon, and the other to control 34 miles west to the end of double track at Swedeborg. In 1944 a 22-mile section west from Swedeborg to Sleeper was added to the Newburg-Swedeborg machine. The original intention was to control all this territory from Springfield, Mo., where the dispatchers were located; however, the control machine and dispatchers had to be shifted to Newburg, which is a subdivision point, on account of war restrictions on critical materials.

In 1946, C.T.C. was authorized between Sleeper and Springfield, 65 miles. War restrictions having been lifted, the original plan of having the



Dillon-Newburg control machine was moved from Newburg to Springfield

machine sections were installed at Springfield together with the carrier equipment located at Springfield, Lebanon and West Newburg. The carrier equipment at West Newburg is for the Newburg-to-Dillon territory.

The old control machine for the Newburg-Sleeper section, in the office at Newburg, was taken out of service, and is to be revised in a C.T.C. project now under construction on the Frisco on 40 miles between Jasper, Ala., and Birmingham.

The actual change-over for the Newburg-Sleeper section made December 5, starting at 7:00 a.m., and completed at 12:00 noon, was accomplished one siding at a time. The code line was opened at the east end of each siding, taking the control away from Newburg, and by changing the station selection connections on the LCS units, transferred these stations to the Springfield machine. The transfer of the 27 stations on this section was completed in 5 hours, without interruption of traffic.

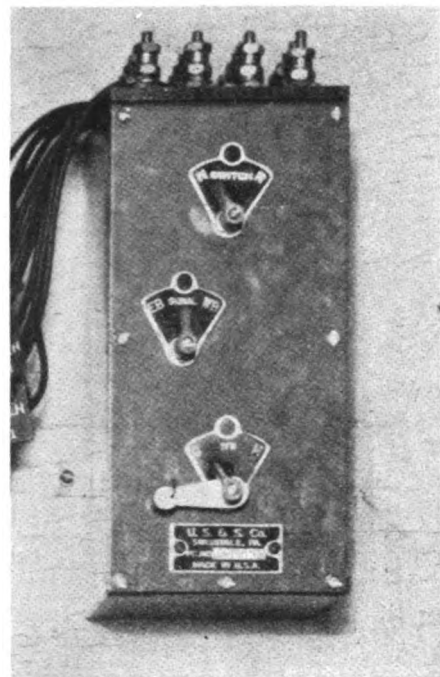
Although the moving of the Newburg-Dillon machine does not set a record for length of territory controlled, or any other exceptional characteristics, it does represent the first major move of a control machine within C.T.C. territory to the division headquarters. This move was also made without any interruptions in traffic.

At each field location an auxiliary control panel was installed on the original installation whereby the switch and signals can be controlled

locally. These panels were installed to permit the maintainer to make periodic field tests and adjustments, without disturbing the dispatcher except to get permission to transfer the controls. Also in case a storm disrupted the line service, this auxiliary control panel could be used to keep trains moving. A sealed transfer lever takes the control of the final stick relays away from the dispatcher, and permits these relays to be controlled by correspondingly numbered levers on this panel. While controls are transferred to this panel, the indications are not interrupted and are still received on the C.T.C. machine. During the change-over men were stationed at each controlled location and operated the switches and signals by use of these panels on instructions from the dispatcher by telephone.

The code line from Newburg to Dillon was disconnected at 9:00 a.m. on December 7, 1946. The machine and office equipment was loaded in a truck, taken to Springfield, a distance of 119 miles, set up in the dispatchers' office, and was in operation by 2:00 p.m. During the time the machine was in transit, the final carrier connections for this section were made. No changes in field-station selection were necessary as the control machine remained west of the controlled territory.

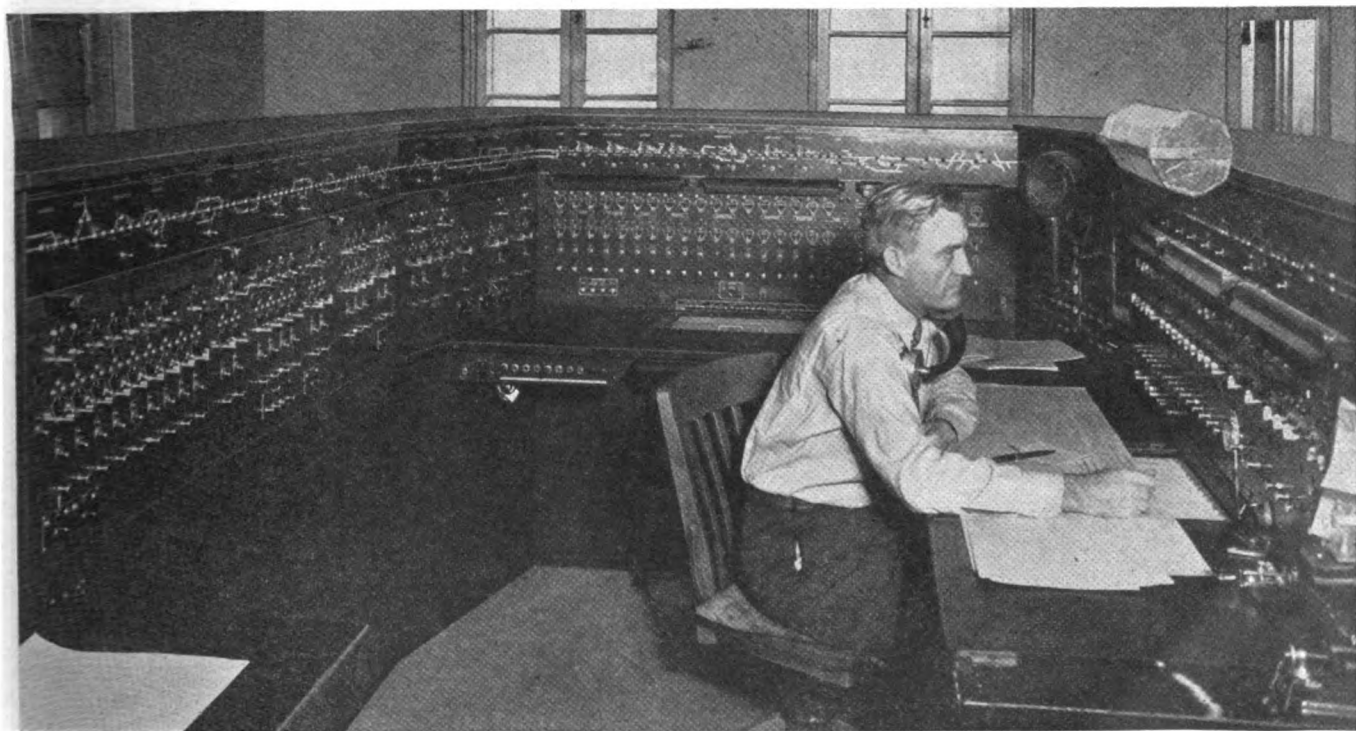
A repeater station is located at Lebanon for the carrier frequencies used from Newburg to Dillon. This repeater is in operation at all times. Emergency repeaters are installed at



An auxiliary control panel

Marshfield and West Crocker. The emergency repeaters at Marshfield boost all frequencies, while the one at West Crocker is for the Newburg-Dillon section only. The installation and transfer of the controls to Springfield was done by the railroad forces.

(Editor's Note: An article concerning the Dillon-Swedeberg project was published in the March, 1944 issue of *Railway Signaling*, and an article on the Springfield-Monett project, in the May, 1945 issue.)



These panels control the entire territory between Newburg and Monett, 162 miles