

When CTC operation is resumed, if communication has also been restored, the same procedure should be followed as where we have had communication. If communication is still interrupted, "31" train orders annulling the suspension of CTC are delivered by an operating officer or signal maintainer to all trains and operators within the limits of no communication, and the signatures are transmitted to the train dispatcher before any other trains may enter such limits.

In both cases, "Failure of CTC" or "Failure of CTC and Communication," passenger trains are restricted to 50 mph, freight trains to 35 mph.

After CTC operation is resumed, the radio sets are disconnected and returned to the signal supervisors' headquarters, where they are kept when not in use.

In addition to the above instructions, we have a "practice alert" about once every six months, to train everyone in the procedures to follow if the communications should fail. Only the chief dispatcher and one or two others know the date and time of the alert. When the time arrives, the chief starts the "ball rolling" on these emergency instructions. Each man acts as though trains were not running, and the maintainers, signal and operating officers are notified of a simulated failure. The emergency radio stations are set up and put into operation.

Walkie-Talkies

When providing walkie-talkies as auxiliary radio on cabooses and/or locomotives, are the radios taken from the caboose after each run, or are they left in the caboose and taken out only for use by the train crew, and for battery charging?

Packsets Removed After Each Run

By C. J. NELSON
Assistant Superintendent
Communications
Chicago, Rock Island & Pacific
Chicago, Ill.

The Rock Island utilizes only walkie-talkies in its cabooses for radio communication. These are normally mounted in racks and connected to an antenna on the top of the caboose. In emergency they may be removed from the rack and the fixed antenna replaced with a short whip, allowing them to be carried alongside the train for direct communication to the diesel.

These sets are turned in by the conductor at the end of the run to a yard clerk, or some other designated individual, who then removes the batteries and charges them. When the set is again issued, a freshly charged set of batteries are installed and the walkie-talkie checked with the local base radio station to be certain it is operating properly.

Auxiliary Use

By S. W. MILLER
Superintendent of Communications
New York, Chicago & St. Louis
Cleveland, Ohio

Walkie-talkie type radio sets are provided in cabooses on the Nickel Plate as auxiliary radio sets. As the assigned caboose system is used, the walkie-talkie type sets are left on the cabooses, and only removed in case of set trouble when a spare set is substituted.

One-watt storage battery sets have proven to be very satisfactory for auxiliary use. The storage battery cells are replaced with fully charged cells by electricians when cabooses are placed on repair tracks for their monthly checks.

Left in Caboose

By H. W. BURWELL
Telephone Engineer
Louisville & Nashville
Louisville, Ky.

On the Louisville & Nashville the walkie-talkies are assigned to the caboose. We use the dry battery type of power supply. The walkie-talkies are left in the caboose after each run and are given a talking test by the maintenance force using the station on the caboose as a monitor. In case trouble is reported by the crew or improper operation is noted by the test, the set is replaced and sent to the radio shop for repairs. Our failures with walkie-talkies on line-of-road have been negligible.

Dry-Battery Sets

By R. W. TROTH
Superintendent
Communications & Signals
St. Louis-San Francisco
Springfield, Mo.

We have packsets as auxiliary radio equipment on all our radio-equipped cabooses. None are assigned to engines. Dry battery sets are used exclusively, and we do not have the problem of battery charging. Sets remain with the cabooses either until they fail or until they are removed for maintenance. All radio

cabooses are pooled on the Frisco, and packsets are checked along with the standard radio as the cabooses pass through our larger terminals where we have maintainers on duty.

Sets Assigned

By R. B. HENDRICKSON
Signal Engineer
Chicago, South Shore & South Bend
Michigan City, Ind.

On the South Shore, each caboose has a walkie-talkie assigned to it. This set remains in the caboose at all times except when removed by the train crew to aid in switching operations, or when removed for a service check or repairs. These walkie-talkies are powered by dry batteries, and thus do not require removal for battery charging.

Signal Lamp Test

Do you test signal lamps by burning them a certain number of hours before placing them in service? Why or why not? Please give reasons.

Observe When Installed

By E. P. STEPHENSON
Signal Engineer, System
Canadian National
Montreal, Que.

The only testing carried out in general on Canadian National consists of observing the lamp for a few minutes after it is installed, to see if it burns with excessive brightness or the bulb clouds. If operation appears normal, then the lamp is considered satisfactory. Our experience has been that this testing is satisfactory and that more elaborate tests are not warranted.

10-Min. Check

By T. L. CARLSON
Superintendent of Signals
Chesapeake & Ohio
Richmond, Va.

On the C&O we do not burn signal lamps a certain number of hours before placing them in service. We do burn all lamps for about 10 min. to test for defective filaments. A number of years ago we burned lamps a certain number of hours, but we could not definitely determine that there was any true relation between lamp failures and "burning in" periods. We believe that the 10 min. check we are giving lamps is as effective in holding down lamp failures as our former longer burning periods.