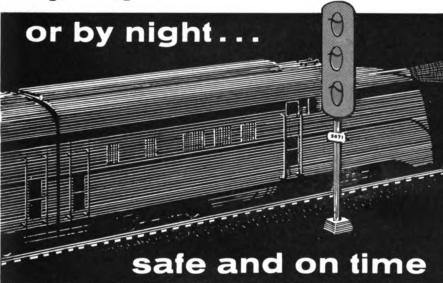


by day



## with KOPP Signal Lenses



Maintaining efficient signaling is vitally important to the safe and "on time" operations of today's modern railroads. Kopp-engineered products are some of the components that help make exact scheduling possible.



Kopp signal glassware can be depended upon in all kinds of weather and under all types of physical or thermal stress. The colors are accurate, they won't fade . . . surfaces are tough, they resist rust . . . light beams are controlled . . . dimensions are uniform.

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ROPP SIGNAL LENSES, ROUNDELS, LANTERN GLOBES At manufacturers of lamps, lanterns and signaling equipment

## NEWS BRIEFS

- CANADIAN NATIONAL has put into service its new automatic classfication yard at Winnipeg, Man. Known as Symington Yard, the new facility features 62 classification tradu and GRS Class-Matic yard classification system, with automatic switching and automatic retarder controls.
- LOUISVILLE & NASHVILLE has authorized expenditure of \$74,500 for purchase of 27 half-ton trucks with special equipment, for use by the communications and signal department.
- SOUTHERN PACIFIC has developed electronic highway-grade crossing controls, said to eliminate special track circuits for timing, cut-outs and restarts for trains traveling at various speeds. Field tests of the new electronic controls are under way and they will be manufactured by the Marquardt Corp., under SP license.
- AUTOMATIC CONTROL system is operating two trains on the 12-mile circular route of the Moscow subway. The new self-contained controls hold the trains within 3-4 seconds of the 30-minute schedule, and all stops are within 5 ft of platform locations.
- FCC, effective July 13, 1962, deleted various rules pertaining to Conelrad including Sections 16.601 through 16.607 of Part 16. FCC Conelrad Manual or Guide for the Land Transportation Radio Services was also deleted.
- FCC has suspended for the statutory 90-day maximum the tariff filed by AT&T Long Lines Department. providing for full-scale commercial wide area data service (WADS). According to Telecommunications Reports the FCC suspension runs until December 1, 1962.
- DEPRECIATION Guidelines and Rules, recently issued by the U.S. Treasury Department Internal Revenue Service, indicate that for ICC road accounts 26—communication systems and 27—signals and interlockers, a guideline life of 14 years may be used.
- NEW YORK CITY Transit Authority in its 1963-64 budget, has requested authority to spend \$3.7 million for new track, signal and power (Please turn to page 40)

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(Continued from page 38)

equipment on the Independent subway. Also included in the budget would be signaling for a new proposed extension of the Sixth Avenue IND Line north, under Central Park and Madison Avenue, to connect with the present Concourse IND Line in the Bronx.

- SEABOARD AIR LINE has received ICC approval to modify an existing CTC system between Lake Worth and Carmen, Fla., 36 miles. Included will be the change of aspects of 11 controlled signals, changing five hand-operated switches to power operation, and changing five hand-operated switches to spring switch operation with facing point locks.
- NEW YORK CENTRAL has received ICC approval to install a traffic control system between Greensburg and Lawrenceburg Junction, Ind., 40 miles. Some portions of second main track will be removed and others converted to sidings.
- SOUTHERN PACIFIC has received ICC approval to install a traffic control system between Watsonville

Junction and Salinas, Calif., 16 miles. Control will be from a machine at San Francisco.

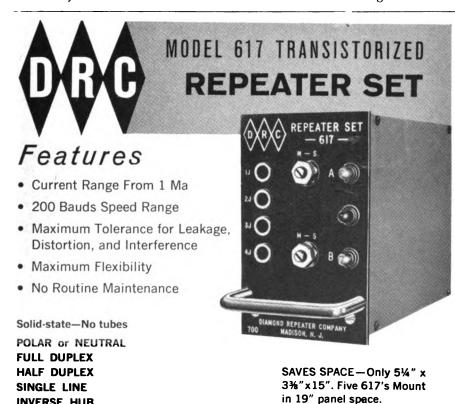
- SANTA FE has received ICC approval to install a traffic control system on one main track between Newkirk, Okla., and Mulvane, Kan., 48 miles.
- GULF, MOBILE & OHIO has received ICC approval to install a traffic control system between Bloomington and Athol, Ill., approximately 32 miles. A portion of second main track will be removed, with some sections left for sidings. Control will be from a machine at Bloomington.
- FLORIDA EAST COAST has received ICC approval to install a traffic control system between Edgewater Junction and Cocoa-Rockledge, Fla., 46 miles. In connection with this installation portions of the second main track will be retained as sidings, the remainder being removed.
- MISSOURI PACIFIC and Union Pacific have received ICC approval for proposed modifications to an existing traffic control system on the MP between Kansas City and Atchison, Kan., 53 miles, including crossings of the UP with the MP at Kansas City, Kan. Several interlockings and two sec-

tions of CTC now locally controlled are to be controlled from a new MI traffic control machine located at Kutsas City, Mo.

- CHESAPEAKE & OHIO has or dered 14 sets of intermittent-inductive train control equipment from Union Switch & Signal Division of WABCO for installation on new diesel-electric locomotives.
- ST. LOUIS-SAN FRANCISCO La ordered 50 sets of Bendix transistorized 2R series radio communication was from Union Switch & Signal Division of WABCO, to be installed on locomo
- A REMOTELY CONTROLLED diesel-electric locomotive, built by General Electric Co. for Kentucky Power Co., is switching the generating station at Big Sandy, Ky. The 470-h; 80-ton unit can be controlled either from the cab or with a 12-lb, 154+ me radio transmitter which has a senior of pushbuttons that can activate any of 10 different locomotive functions Maximum range of remote controller is 1/4 mile; the device has a fail-sate button which, while depressed produces the continuous carrier significant needed for operation of the locomotive
- CREWLESS FREIGHT TRAINS. Four 18-car ore trains are shuttling between a loader and a dumper on a six-mile railway line in western Lab rador. The single-track railway, lecated near Labrador City, is capable of handling 55,000 long tons (2.200 lb per ton) of crude ore per day. The automation controls-built by General Railway Signal Co.-provide for completely automatic, simultaneous operation of four trains.

The operation of each locomotive 3 directed automatically from the wayside by coded AC current. The code consists of AC energy at 60 cycles that is interrupted 37.5 (service brakes), 75 (7.5 mph), 120 (15 mph), 180 (30 mph) or 270 (reversing) times per minute The code rate, as well as a lack & code, determines the nature of each command given to a train. The inching (1/8 to 3/8 mph), or slow speed during loading and during precision spotting for dumping, is controlled by tone modulated 960-cycle carrier signals. These signals are applied to wire loops between the rails.

The AC-coded controls and tore controls are transmitted continuous in the rails toward the movement d the train. On the train, these codes are picked up by receivers, inductively coupled to the rails. Comparison is made with actual train speed, as detected by an electronic speed governor



**TELECOMMUNICATIONS & TELECONTROL** 

### DIAMOND REPEATER COMPANY

**57 MAIN STREET** 

**INVERSE SINGLE LINE** 

**INVERSE HUB** 

MADISON, N. J.

he resultant output is then converted relay operation, automatically conolling the throttle and brakes in a roper manner for best locomotive hanling. (Full story next month).

#### Railroad Personnel

ONTARIO NORTHLAND. E. A. rith, manager of communications, apointed assistant general manager. He as been succeeded by L. K. Smiley, lant superintendent.

ATLANTIC COAST LINE. L. M. mith, signal inspector at Rocky Sount, N.C., appointed assistant suervisor signals there. T. M. Burn apointed office engineer at Jacksonville, la.

JERSEY CENTRAL LINES. John . McGinley, circuit engineer, apointed assistant signal supervisor, at lizabethport, N.J., succeeding the ate Bertram V. Young.

LOUISVILLE & NASHVILLE. ames K. Taylor promoted to superisor communications and signals at Mobile, Ala., succeeding Louis B. Iale, retired. Mr. Taylor had been cting supervisor since early this year. fanning M. Booker advanced to assistnt signal supervisor at Mobile, suceeding Ralph L. Blackwell, pro-

SANTA FE. J. H. Nail, who was n temporary special assignment (RSC lug. 1962, p. 30), has returned as uperintendent of communications at Amarillo, Tex. Merle A. Carpenter, ssistant to superintendent of comnunications at Topeka, Kan., has reired and has been succeeded by Claud W. Conley, wire chief at Temle, Tex.

Mr. Carpenter was first employed by the Santa Fe in 1913 as a teleraph apprentice and his entire servce has been in the communications lepartment. He was communications upervisor at Topeka prior to his appointment as assistant to the superntendent of communications in April of this year.

Mr. Conley was born February 1, 925, at Santa Anna, Tex., and began nis railroad career as an apprentice perator on the Santa Fe in 1946. He vas subsequently a student wire chief and in May 1949 was assigned to the Position of wire chief at Temple, Tex.

CHESAPEAKE & OHIO. Ivanhoe W. Kuper, general communications inpector—system, at Richmond, Va., appointed assistant communications engineer at Huntington, W. Va. R. Sines,



I. W. Kuper



Oscar E. Miller

supervisor communications maintenance at Huntington, appointed general communications inspector there. F. S. Carpenter, assistant supervisor communications maintenance at Cincinnati, named supervisor communications at Huntington. E. N. Warren appointed assistant communications inspector at Huntington; D. S. Allen, assistant com-

munications supervisor at Cheviot, Ohio; and Hiram Pope, assistant supervisor of signals at Ashland, Ky. Mr. Kuper was born in Richmond, Va., February 6, 1918. He was graduated from Marshall College in 1942 with a B.E.S. degree and then took an evening course in mechanical en-

gineering at the University of Cincinnati. He entered the employ of the C&O in August 1942 as a rodman on the Cincinnati division. In 1945 he was transferred to the communications department as assistant communications inspector; was promoted to communications inspector in 1951, and to general communications inspector

#### **Obituary**

in 1959.

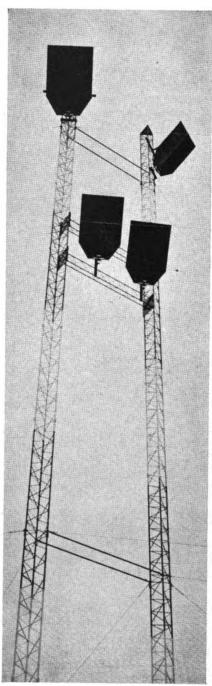
• OSCAR E. MILLER, 64, former signal engineer of the Terminal Rail-road Association of St. Louis, died at Barnes Hospital, St. Louis, July 12, 1962. Mr. Miller was born in Terre Haute, Ind., and began his railroad career in 1915 with the Cleveland, Cincinnati, Chicago & St. Louis (now New York Central). From 1938 to 1952 he served as signal and train control inspector with the Bureau of Safety, Interstate Commerce Commission, at St. Louis, He was signal engineer of the TRRA from September 1952 to August 1961, when a heart attack forced him to take less responsibility and he was retained as assistant to the vice-president and general manager.

#### **Supply Trade News**

 RADIO CORP. OF AMERICA. Joseph J. Pomparelli, formerly in microwave sales with General Electric Co., has joined RCA as sales representative for commercial microwave products in 13 eastern states, succeeding Vroman W. Riley, promoted (RSC Aug. 1962, p. 44).

(Please turn to page 42)

# ROHN **MICRO-WAVE TOWERS**



For your micro-wave tower requirements, get the advantages of advanced design, superior workmanship, compe-tent engineering assistance, and com-plete erection service.

FREE details gladly sent on request. ROHN Representatives world-wide.

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"Pioneer Manufacturers of Towers of All Kinds"

(Continued from page 41)

- THOMAS A. EDISON INDUS-TRIES. James A. McNiven has joined the Primary Battery Division as a service engineer, with headquarters in Metairie, La.
- ITT KELLOGG TELECOMMUN-ICATIONS DIVISION. Richard H. Griebel has been named president of this division, which was formerly a department headed by Mr. Griebel as vice-president.
- GENERAL RAILWAY SIGNAL CO. Otto Hikade, assistant western manager at Chicago, appointed east-ern manager at New York, succeeding Carl V. Scully, appointed manager of Canadian operations, with office in Montreal. Omar D. Stowell, Jr., sales engineer at Chicago, is now assistant western manager. Hall E. Downey, sales promotion and advertising manager, appointed manager-public relations and sales promotion. C. Alan Ingalsbe, chief copywriter in the advertising department, named advertising manager.







Carl V. Scully







Hall E. Downe



C. Alan Ingalsbe



Mr. Hikade is a graduate of the New York Military Academy and joined the GRS commercial engineering department in 1945, after serving with the U.S. Air Force during World War II. He has had special assignments in the sales department and has been a field sales engineer.

Mr. Scully is a graduate of RCA Radio Institute and joined the GRS engineering department in 1945. In 1950 he was appointed a sales engineer at St. Louis, and in 1956 assistant eastern manager, becoming eastern manager in 1958.

After graduation from Rochester Institute of Technology in 1946, Mr. Stowell became an engineer in the commercial department of GRS, until he was assigned to the Chicago office as a sales engineer.

Mr. Downey joined GRS as an ad-

vertising copywriter in 1944 and became sales promotion and advertising manager in 1961.

Mr. Ingalsbe, formerly an industrial arts instructor, became an advertising copywriter for GRS in 1948, advancing to chief copywriter in 1955.

- UNION SWITCH & SIGNAL DI-VISION, Westinghouse Air Brake Co. C. F. Wert, assistant district manager at New York, appointed district main ager there. Mr. Wert was born in Bethlehem, Pa., June 22, 1923. After graduating from high school he joined the Reading as a signal helper. He served in the Army during World Wa II, returning to the Reading in 1946 In 1951 he was promoted to supervisor signals. Mr. Wert was graduated from Drexel University as an electrical engineer in 1951. He became associated ated with US&S in 1953 as a sales engineer at New York, and in April @ this year was appointed assistant district manager there.
- MICOM INC. Norman E. Wunderlich has become a staff consultant and will serve as engineering and sales representative in the Northeast with office in Garden City, N.Y. He was a pioneer in the development of VHF and UHF two-way radio-telephone equipment and systems and in other engineering developments in communications. Prior to joining Micom he planned and assisted in the completion of microwave systems in Argentina and the Caribbean and developed and built the U.S. Air Force 50-kw single sideband transmitters for the Globecom system.

### This Was News 50 and 25 Years Ago

The Signal Engineer, September 1912. Chicago & Eastern Illinois has arranged for a comprehensive service test of the Miller automatic train control system, which will be installed from Villa Grove to Salem, Ill., 107 miles. Approximately 100 to 125 locomotives operating in this territory will be equipped.-Long Island will add four electro-pneumatic interlockings at its expanded Jamaica yards. A total of 426 functions will be handled by 173 working and 51 spare levers.

Railway Signaling, September 1937. Signal inspection act was passed by Congress and signed by President Roosevelt on August 26. -Baltimore & Ohio installs 4-and-5 indication color position-light signals on 150 miles of single-track line between Midland City, Ohio, and Parkersburg, W. Va. Also included in the installation was the rehabilitation of five interlockings and modernization of protection at 20 highway-railroad grade crossings -Missouri Pacific installs Teletype equipment at Little Rock and North Little Rock, Ark., and at Texarkana,

Tex., for use in handling messages and wheel report consists between these points and St. Louis, Mo.-Chicago, Burlington & Quincy installs intercar telephone system in its Zephyr trains. The phones are used by employees and passengers for making dining car reservations, handling requests for paging, ordering of food and drinks, and other purposes where the telephone can logically be used to save steps.-Chicago, Rock Island & Pacific installs colorlight automatic block signaling on 46 miles of single-track between Bureau, Ill., and Peoria. The leaving signals at each end of the station layouts are lighted continuously, but the lamps in the remainder of the signals are normally extinguished, being lighted by approach control. As a means of giving information as to the approach of trains for the benefit of maintainers, track forces and others on motor cars, the controls are so arranged that when a train leaves a station, all of the signals for both directions are lighted throughout to the next station.

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