

RADIO CONTROL: A locomo-'e used for spotting unit train hopr cars for unloading at the Martins eek power plant near Easton, Pa., equipped with a radio remote conol system. By pressing appropriate ittons on a hand-control unit on 3 radio transmitter, one man dicts the locomotive around the yard the Pennsylvania Power & Light o., plant. "With the new equipent, up to 25 cars at a time may separated from the unit train and loaded in less than an hour," reorts James McKelvey, plant supertendent. "Besides easing the work burden, the new device provides a saving of about \$6,000 a year in coal-unloading costs," notes Mr. Mc-Kelvey.

The radio equipment for this remotely controlled locomotive was furnished by Union Switch & Signal division of WABCO. In addition to spotting the cars for unloading, a trainman located on the ground at the entrance to the dumper now controls all functions of the locomotive. By remote control he can start, stop, accelerate, decelerate, or change direction of the locomotive, ring the bell, sound the horn or apply sand.

# This Was News 50 and 25 Years Ago

The Signal Engineer, August 1915. Pennsylvania installs first position light signals on its line between Broad Street Station, Philadelphia and Paoli, Pa., about 20 miles. Majority of the line is 4-track with some sections of three tracks.-Nashville, Chattanooga & St. Louis installs new electro-mechanical interlocking at the entrance to the north end of Craven's vard, Chattanooga, Tenn. Plant also handles trains of Southern and AGS.-Belt Railway of Chicago installs electro-pneumatic pushbutton machines to control switches in the ladders of the Clearing classification yard and the signals governing train movements over the hump.-New York Municipal Railway working with the BRT and IRT will be equipping subway cars with a cab signal system and an automatic speed control system to operate over 225 track miles of elevated line and 69 track miles of subway.

Railway Signaling, August 1940. Pennsylvania installs 1,000 ft coded track circuits on 110 miles of double-track territory equipped with position-light automatic block signals. The installation (between Bradford, Ohio and Logansport, Ind.) has no line control circuits and is fed from batteries, thus being immune from the effects of an AC power outage.-Union Pacific installs remote control interlocking at Los Angeles, Calif., based on simplified directwire circuits using minimum number of line control wires in cable. -Terminal Railroad Association of St. Louis puts emergency operations into service when fire destroys interlocking tower at throat of Union Station. RS&C • CHESAPEAKE & OHIO's petition to the ICC for permission to remove its intermittent inductive automatic train-stop system bewteen Orange and Clifton Forge, Va., has been granted by an order of hearing examiner Robert R. Boyd, dated June 16, 1965.

• CHICAGO & NORTH WEST-ERN has received ICC permission to install CTC between Denison and Missouri Valley, Ia., about 37 miles. CTC will replace an automatic train control system without wayside signals arranged for current of traffic operation on two tracks. Portions of second main track will be removed with other portions remaining as sidings.

• LONG ISLAND has been granted relief by the ICC from the requirements of Section 136.587 of the signal RS&I to the extent that the railroad is authorized to omit the specified departure test at intermediate terminals provided its locomotives have had a test of the automatic speed control cab signal apparatus on both operating ends within the previous 24 hour period and the locomotives have a running road test or the equivalent thereof, at the intermediate terminals.

• LOUISVILLE & NASHVILLE has received ICC approval to install a traffic control system between Springlake and Winchester, Ky., about 87 miles. Certain portions of second main track will be removed.

L&N and the Brotherhood of Railroad Signalmen have signed a union shop agreement effective July 1, 1965, covering L&N employees represented by the BRS.

• MICROWAVE GROWTH: Privately owned microwave systems in the U.S. are showing an annual growth rate of 15% based on route mileage. So stated Stanley F. Damkroger, assistant vice-president marketing, AT&T, recently. He said that these private systems now total 98,-000 route miles in the U.S. Urging the Bell System and Independent telephone companies to meet the challenge of private microwave, Mr. Damkroger said: "Our competition is very real; it is competent; it offers good products competitively priced; and it is challenging ...."

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RAILWAY SIGNALING and COMMUNICATIONS

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#### **NEWS BRIEFS**

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• NEW YORK CENTRAL has received ICC approval to install a traffic control system between East Pinola and Pine, Ind., 34 miles in lieu of automatic block signaling arranged for current of traffic operation on two tracks.

• NEW YORK CITY TRANSIT AUTHORITY has placed its first two-way police radio system in service on the IRT Lexington avenue line between Bowling Green and 125th street. A second radio system will be installed to enable motormen on moving trains to communicate with dispatchers and police. The two radio systems will cost \$750,000.

• NORTHERN PACIFIC has received ICC approval to install a traffic control system between Missoula and Frenchtown, Mont., about 18 miles, replacing semaphore automatic block signaling.

• SANTA FE has awarded contracts for microwave and other electronic equipment to complete its last link in its 2200-mile, Chicago-Los Angeles microwave system. Radio Corp. of America will supply type CW-60 solid-state RF equipment for this Chicago-Kansas City, 450-mile system. Multiplex equipment is to be furnished by Motorola, Inc., with towers by Grasis Fabricating Co., and buildings to be furnished by Armadillo Mfg. Co.

• SOUTHERN has ordered type K2 CTC from General Railway Signal Co. for installation between Arlington and Salisbury, N.C. The territory includes 26 miles of single track, 44 miles of double track, and 13 controlled locations. Also, K2 CTC will be installed on a 9-mile line between Forrestville and Krannert Jct., Ga.

• TELPAK: Major users of the AT&T Telpak tariff have asked U.S. Circuit Court of Appeals to enjoin the FCC's Telpak orders, according to *Telecommunications Reports*. Eight Telpak users have requested an injunction seeking a court review of the Telpak decisions. (RS&C Jan. 1965, page 22). AT&T has joined the users in requesting an interlocutory injunction, while at the same time





Louis E. Kearney Com. & Sig. AAR

Ivan H. Loucks Com. & Sig. AAR

the FCC and Western Union are opposed to such action. The point at issue is that under present FCC orders, AT&T must file new Telpak A and B rates by September that are unified with present private line rates. Users seeking injunctive relief, want a court review of this order. Observers noting the Commission position point out that under the existing order the new rates would be filed by September 1, would not be effective until October 1, and that the FCC could suspend the rates for another three months pending further study of the situation.

#### **Railroad** Personnel

• CANADIAN NATIONAL: Donald H. Green, acting engineer of signals, Montreal, has been appointed engineer of signals. Patrick G. O'Malley, acting regional signal engineer at Toronto has been appointed regional signal engineer.

 COMMUNICATION & SIGNAL SECTION, AAR: Frank L. Chatten, system engineer communications and signals, Pennsylvania, has been elected to the Committee of Direction to serve in 1965 in place of Frank Youngwerth, resigned. Ivan H. Loucks, recently retired chief of the Amateur and Citizens Radio division of the Federal Communications Commission has been appointed engineer, communications and signals, succeeding Louis E. Kearney, retiring. John L. McNabb, field signal engineer, Illinois Central, has been appointed assistant engineer, communications and signals, succeeding P. H. Foley, assigned to other duties.

Mr. Loucks was born on Mar. 30, 1903 at Harrison Valley, Pa. He graduated from the University of Florida in 1931 with a bachelor of science degree in electrical engineering. He joined the FCC in that year



John L. McNabb Com. & Sig. AAR

(EF)

Robert I. Becksted Cipel & Le Carbone

as a radio inspector at Atlanta, Ga. He was subsequently transferred to Grand Island, Neb., and to Philadelphia, Pa. In 1939, he was appointed radio engineer in Washington, D.C. Following six years in the Navy in World War II as a communications officer. Mr. Loucks returned to the FCC in 1946. In 1952 he was appointed assistant division chief of the Industry and Commerce division. He was promoted to chief of that division in 1960 and two years later appointed chief of the Amateur and Citizens Radio Division, from which he retired on June 30, 1965.

Mr. McNabb was born on Apr. 19, 1931 at Harvey, Ill., and graduated from Chicago Technical College in 1959 with a bachelor of electrical engineering degree. He joined the Illinois Central as a signal helper in 1951, and was promoted to signal maintainer in 1953. A year later, he was appointed signal draftsman in the signal engineer's office in Chicago, and two years later appointed circuit designer. In 1960, Mr. Mc-Nabb was promoted to assistant engineer at Memphis, Tenn. In 1962, he was appointed field signal engineer at Carbondale, Ill.

Mr. Kearney was born at Honesdale, Pa., on June 3, 1899. He received a bachelor of science degree in electrical engineering in 1928 from the Drexel Institute of Technology. Prior to receiving his degree, Mr. Kearney had been a radioman in the Merchant Marine. In 1929, he joined the radio division of the Department of Commerce, and was subsequently on the engineering staff of the FCC when that organization was formed in 1934. In 1945, Mr. Kearney was appointed engineer for the Communications Section, AAR, and was appointed engineer C&S when that Section merged with the Signal Section in 1961. Mr. Kearney is retiring effective Aug. 31.

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#### **NEWS BRIEFS**

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• DELAWARE & HUDSON: H. L. Moseley, general signal inspector, has been appointed superintendent of signals and communications succeeding C. H. Tobin, retired.

• LOUISVILLE & NASHVILLE: W. C. Wainscott, assistant signal supervisor, Athens, Ga., appointed signal supervisor at Birmingham, Ala.

• MILWAUKEE ROAD: Gordon M. Hill, assistant engineer signals, appointed signal engineer succeeding P. H. Linderoth, retired.

• NORTHERN PACIFIC: G. F. Hill, communications supervisor, Spokane, Wash., appointed general communications supervisor, Seattle, Wash., succeeding F. A. Mackenroth, assistant superintendent of communications, retired. L. W. Portz, communications maintainer, Spokane, succeeds Mr. Hill.

• SOUTHERN: C. Lloyd Arledge, assistant supervisor communications, appointed communications coordinator, Control & Coordination Center, Atlanta, Ga. Benton L. Beaty, telephone maintainer, appointed assistant supervisor communications at Atlanta.

#### **Supply Trade News**

• CIPEL & LE CARBONE LTD.: Robert I. Becksted, formerly Canadian representative for the Raco Group, has been appointed a sales representative. Prior to his joining Raco, Mr. Becksted was regional signal engineer of the Canadian Pacific





Gordon M. Hill Milwaukee Road

Harry Jensen Howard & Gould

at Toronto, Ont. He retired from that position in 1961.

• HOWARD & GOULD CO.: Harry Jensen, retired signal engineer, Rock Island, has been appointed sales engineer and advisor on H&G products in the railway signaling field. A biographical sketch of Mr. Jensen was published in RS&C, Apr. 1965, p. 32.

• LYNCH COMMUNICATION SYSTEMS INC.: Eugene Crandall and Robert Anderson have been appointed application engineers with headquarters at San Francisco, Calif.

• MARQUARDT CORP.: Charles M. Hursh, transportation research engineer, Union Switch & Signal division, WABCO, has been appointed eastern regional manager, with headquarters at Room 1103, Suburban Station Building, 1617 John F. Kennedy Blvd., Philadelphia, Pa., 19103.

• RAILS CO.: Lester T. Burwell, president, died suddenly on July 30, 1965 at his home in Maplewood, N.J.

• RAILTRON CORP. is an independent company whose president William F. Pelino, director of mar-





Robert C. Archibald Servo Corp.

Thomas A. Westover Servo Corp.

keting and sales Len E. Keeton, and director of services Raymond A. Moenick were formerly associated with Servo Corp. of America.

• SERVO CORP. OF AMERICA: Robert C. Archibald has been appointed southeastern district sales manager for the railroad products division succeeding Len E. Keeton, resigned. Thomas A. Westover has been appointed engineering manager of the railroad products division.

Mr. Archibald, a graduate of Manhattan College, was a sales engineer for Railroad Accessories Corp., prior to joining Servo. Earlier he was a transportation specialist with Link division of GPL. Mr. Westover, an electrical engineering graduate from Carnegie Institute of Technology, returns to Servo after 5 years with Republic Aviation Corp., as assistant chief engineer, electronic products division.

Servo Corp. is going to the U.S. Supreme Court with its hotbox detector patent litigation involving General Electric Co. The Supreme Court will be asked to review lower court rulings on the validity of basic "orientation" patent on Servo's hotbox detector.

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#### **NEWS BRIEFS**

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In August, 1959, Servo Corp., charged GE with patent infringement and unfair competition in the U.S. District Court in Roanoke, Va. In June 1963, the District Court ruled that GE had infringed upon Servo's basic "orientation" patent for an infrared system for the detection of overheated railroad train journal boxes. However, the District Court rejected Servo's claim for damages for unfair competition in the alleged appropriation of Servo engineering data by GE.

In September 1964, the U.S. Court of Appeals for the Fourth Circuit, Richmond, Va., reversed the ruling of the District Court with respect to the Servo patent claim. The Appeals Court, however, also reversed the District Court with respect to Servo's claim that GE had appropriated its engineering data, holding that Servo was entitled to recover damages from GE on the company's claim of unfair competition.

In his June 22, 1963 opinion, Judge Ted Dalton of the U.S. District Court, Roanoke, ruled:

'The position of GE is that the prior art is to be considered in the test of obviousness-in other words, that the accomplishments of the various persons working with the hotbox detector problem prove that the subject matter of the '309 [U.S. Patent No. 2,880,309] invention was obvious to others having ordinary skill in the art. The faulty premise is that these various inventions did not succeed. In retrospect the assemblage of the detector ingredients and placing the same in the right location to do the job now appear relatively simple to one of the ordinary skill in the art, but the test of the need and how long the need, the many efforts of trial and error, and the recognition of the invention as an answer, and the use by GE itself, all add up to the fact that it was not an invention obvious to one of the ordinary skill in the art."

The basic orientation patent is concerned with the positioning of the hotbox detector. The infrared detector head is oriented in a toed-in manner so as to utilize the underside of the railroad car as an external reference, permitting use of the atmosphere or environment in which journal boxes must be scanned.



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"In the late 1920's, I first started reading the magazine that is now Railway Signaling & Communications and I have been a cover-to-cover reader ever since. I find its reporting to be thorough yet concise.

"The men who work with me in the Signal and Communications Department of the Boston and Maine share my belief that it is one of our most valuable tools."

W, W, H

W. W. HARTZELL Engineer of Signals and Communications BOSTON AND MAINE RAILROAD